


CCEC SCEC CTED DCDT CCCBD CCLD
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Jan. 15 & 16, 2010 Colorado Springs

A Collaborative Conference
for Special Education

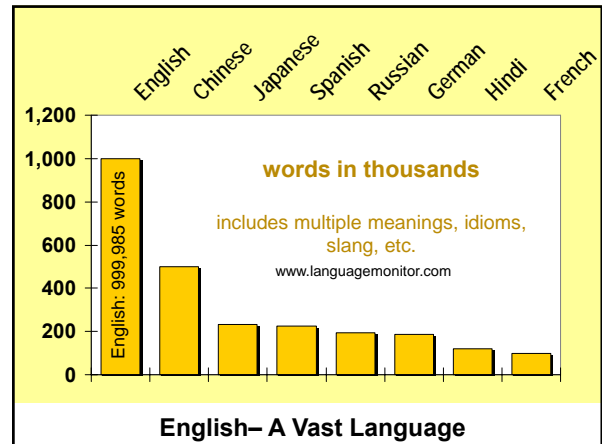
**COURAGE
to RISK**



The
**Word-Savvy
Student**

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Morphological Awareness


- The ability and aptitude to use knowledge of morphemes (prefixes, suffixes, roots, and base words) to gain word knowledge
- Also called structural analysis

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What's in a Word?

Are these real words? What might they mean?

ugsome
malductive
vincible
subjacent
triskaidekaphobia



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The mind analyzes every stretch of language as some mixture of memorized chunks and rule-governed assemblies.

Pinker, S. (1999). *Words and rules*, p.26

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Morphology Terminology

Morpheme: The smallest unit of meaning in a word
unlocking has 3 morphemes: un-lock-ing
biographers has 4 morphemes: bio-graph-er-s

Common Morphemes:


word root: inspector, phonics
base word: unlikely light house
prefix: re-, un-, dis- } **affixes**
suffix: -able, -ive, -ly }

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The greatest benefit from instructional time spent on word study can be gained from exploring roots, prefixes, suffixes, and networks of related words.

--Henry, 1997

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Content Standards for Reading and Writing

STANDARD 1: Students read and understand a variety of materials.

...use word recognition skills and resources such as phonics, context clues, picture clues, word origins, and word order clues; reference guides; roots, prefixes, and suffixes of words for comprehension

Source: <http://www.cde.state.co.us>

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Content Standards for Reading and Writing

STANDARD 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.

Grades 5-8: ...use prefixes, root words, and suffixes correctly in writing and speaking

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"Nearly half of incoming freshmen cannot read their textbooks fluently" (Carnegie Corporation, 2002)

This may be true, but...

"Morphological knowledge is a wonderful dimension of the child's uncovering of "what's in a word," and one of the least exploited aids to fluent comprehension" (Wolfe, 2007, p. 130)

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Word-Savvy Students Morphologically Aware
Tuned in, Turned on, and Word Conscious

"...vocabulary instruction needs to be more explicitly metalinguistic—that is, word consciousness is an obligatory, not an optional, component"

Nagy, 2007, p. 54

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Word-Savvy Students are Strategists

context + morphemes = meaning

This student feels confident and capable when confronted by unknown vocabulary.

I think I can, I think I can...

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Word Savvy Students Master Morphologically Complex Words

About 60% of the word meanings in printed school English in grades 3-9 might be inferred through knowledge of their morphemes (along with context clues)

(Nagy & Anderson, 1984)

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Morphemic Analysis in Context

(source: Mountain, 2005)

Here's a new word in our story: **tripod**. It says, "He put the camera on the tripod." I wonder what a tripod could be?

Let's say the word again, syllable by syllable, and look for a meaningful part: **tri-pod**

Have you heard *tri* before—in *triangle*, *tricycle*, *triceratops*?

How many sides on a triangle? **Three.**

How many wheels on a tricycle? **Three.**

How many horns on the dinosaur triceratops? **Three.**

Do you think a tripod might have **three** of something? Three what?

What does the story say about the tripod?

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Outside-In Strategy

1. Look **outside** the word at context clues.
2. Look **inside** the word for meaningful word parts.
3. **Combine the clues. Use the analogy strategy.**

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Outside-In Strategy

(for more examples, see Baumann et al, 2002; Ebbers & Denton, 2008)

The coal miners had spent years inhaling dust. Coughing and wheezing, they suffered from pneumoultramicroscopic silico volcano coniosis.

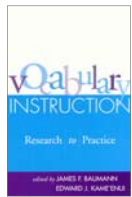
pneumono ultra microscopic silico volcano coniosis

"I don't know this sickness, but I know pneumonia and I know volcano, so by analogy, this sickness might have something to do with lungs and heat—maybe the lungs are inflamed."

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Students skilled in morphemic and contextual analysis have the potential to increase their vocabulary breadth and depth substantially.

(Edwards, Font, Baumann, & Boland (2004) in Baumann & Kame'enui, p. 161)



breadth

Note: Efficacy inconclusive for severe reading disability

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Word-Savvy Students Are Curious

"I wonder why they call it that?"

- Why is my name Goldstein?
- Where is the old York?
- What does Colorado mean?

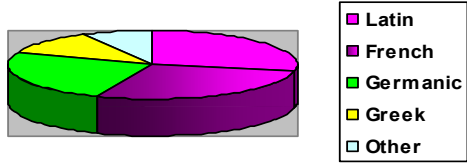
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Word-Savvy Students Understand the English Language

(and know that most words are not rule-breakers)

sugar
orange
sure
recipe
gnome
mannequin

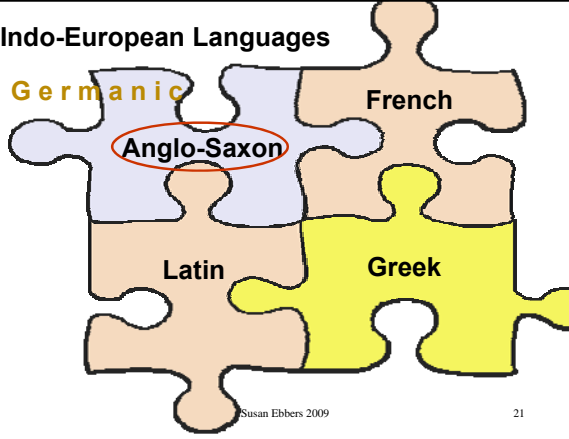
The English Language



Estimates from a computerized survey of about 80,000 words in the old *Shorter Oxford Dictionary* (3rd ed.), published in *Ordered Profusion*, Finkstaedt & Wolff (1973)

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Indo-European Languages




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Germanic Structure: Primary Vocabulary Lists

- one or two syllables: spin, make, bread, hidden, begin
- high-frequency words: love, man, house, heart, be, six
 - prepositions, articles, conjunctions: with, to, for
- compounds: mankind, rainbow, blackbird
- some affixes: childhood, friendship, beneath, twilight
- vowel teams: sixteen, road, meat, thread, soon, woolen
- r-controlled vowels: farm, storm, shirt, spider
- digraphs wh, sh, ch, th, ng: what, ship, thumb, chin, sing
- odd plurals: mouse-mice, foot-feet, child-children
- irregular verbs: thought, caught, kept, sent, gave

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Research with Compounds and Related Words



At-risk second-grade readers failed to understand the meanings of compound words and did not recognize related word (e.g., *quick*, *quickly*, *quicksand*, *quicken*) (Nagy, Berninger, Abbott, Vaughan, & Vermeulen, 2003)

What would you call grass where bees like to hide?
beegrass or *grassbee*?

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Compound Words

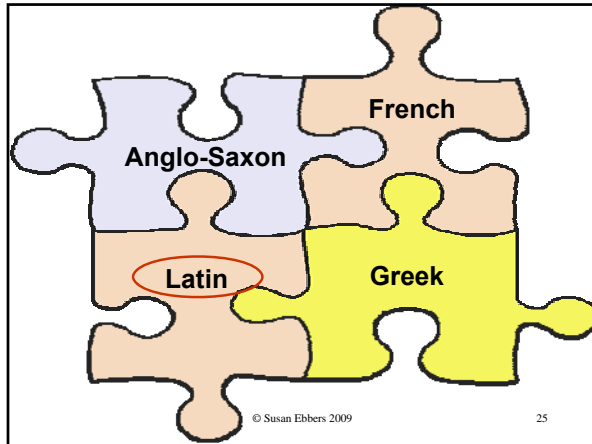
Build, Invent, Describe, Discuss

Pool of word cards	
green	drop
light	night
fly	horse
dog	flash
rain	fire
house	coat

Real word	Invented word
doghouse	horsedog

Verbalize it. Describe the meaning:
A *doghouse* is a house for a dog.
My *horsedog* is a dog that neighs like a horse.

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The brain needs to be prepared for the transition from Anglo-Saxon [glad] to Latinate or Greek words [ecstatic, jubilant, euphoric]

Without this preparation for a change in word structure the brain may be perplexed.

Berninger & Richards, 2002, pp. 233-234

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Teach Latin Word Structure

- Structured! Prefix...Root...Suffix
 - in vis ible (not ible vis in)
- Latin roots are unlikely to stand as free English words
- Bound morphemes (some free morphemes)
- Latin roots convey meaning
 - rupt in erupt: to break; dict in dictate: to speak
- There is often a schwa: ə dăpt ə ble, ä dăpt ä tən

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The Powerful Prefix!

interior
exterior
posterior
anterior
ulterior
deteriorate

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The Peripatetic Prefix

gress: Latin root "to step"

pro (forward)	progress	step forward
re (back, again)	regress	step back
con (with, together)	congress	step together
di (away from)	digress	step away
trans (across)	transgress	step across
e (out)	egress	step out

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White, Sowell, and Yanagihara (1989) found that third-graders who were given training on the nine most common prefixes and a strategy for decomposing words into roots and suffixes outperformed a control group on several measures of word meaning.

They concluded that teaching at least the top nine prefixes (if not all twenty) to middle school students would pay dividends in increased vocabulary learning.

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20 Most Common Prefixes in School Texts

1. <u>un</u> able	10. <u>sub</u> marine
2. <u>re</u> view	11. <u>pre</u> heat
3. <u>in</u> edible (<u>im</u> mobil <u>e</u> , <u>im</u> polite, <u>il</u> legal, <u>ir</u> responsible)	12. <u>int</u> erview
4. <u>dis</u> trust	13. <u>fore</u> warn
5. <u>en</u> lighten (<u>em</u> power)	14. <u>der</u> ail
6. <u>non</u> sense	15. <u>trans</u> fer
7. <u>in</u> side (<u>im</u> plant)	16. <u>super</u> sonic
8. <u>over</u> load	17. <u>semi</u> circle
9. <u>mis</u> guide	18. <u>anti</u> freeze
	19. <u>mid</u> term
	20. <u>under</u> fed

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Peel Away the Affixes

many face

The diamond was multifaceted;
it had many faces or sides.



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Will the Real Prefix Please Stand Up?

reheat	prefix re-	not prefix re-
red		
return	reheat	red
read		
rebuild		
rewind		
rest		
rescue		

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Coin or Clip New Words

(Latin prefix bene: good)



benefit
beneficial
beneficiary
benefactor
benediction
benevolent
Benedict Arnold
très bien

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Derivational Suffixes

“one who” (noun-makers)

-ist	--or	--ian	--er	--eer
scientist	governor	librarian	teacher	engineer
pianist	mayor	dietician	painter	mountaineer
cartoonist	senator	politician	leader	pioneer

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A Derivational Word Wall

Speak it, Grasp the Pattern, Change it out

	syntax shift	un = not, opposite
I am...	predictable	unpredictable
I act...	predictably	unpredictably
I show...	predictability	unpredictability

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important
morphemic analysis
doesn't always work

report
reporter
unreported

support
supporter
supportive
unsupportive
supportively

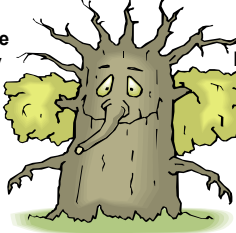
transport
transporter
transportation

deport
deportee
deportation

import
importer
importation

portfolio

portable
portability



port: *to carry* (L.)

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Networks, Webs, Diagrams


Make a word web, spoke diagram, or root tree for the Latin root script or scrib, meaning *to write*.

describe

scribble

prescription

scripture



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Linking Vocabulary Across the Curriculum
Through Morphological Families

terra (Latin for 'earth')

- territory
- Mediterranean Sea
- terracotta pots, terracotta tiles
- extraterrestrial exploration
- rough terrain
- subterranean excavation
- territorial or possessive behaviors
- *terra firma*
- *Tara ?? (Gone with the Wind)*

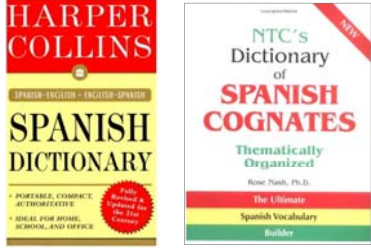
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Chart Morpheme Meanings
Examples & Non-Examples

Morpheme Root or Prefix	Meaning	Description		
		Clearly in	Somewhat in	But not in
Port	To carry	Transport	Comport	Sport
Path	Pain, illness	Pathogen	Sympathy	Pathway
Pan-	All	Pantheism	Panic	Panda bear
Uni-	One	Unicycle	Unique	Immunity
Tri-	Three	Triangle	Trigonometry	Tricky

Source: Ebbers & Denton, 2008

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Teachers and students benefit from resources for accessing the cognate (e.g., Spanish)

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Spanish-English Cognates, Pictured

Latin root *rod, ros*: 'to gnaw, to chew'

<i>corrosion</i>	<i>rodent</i>	<i>erosion</i>
		
<i>corrosión</i>	<i>roedor</i>	<i>erosión</i>

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ELL Results: Effective and Interesting

“Teaching new words was subordinated to the goal of teaching about words— various kinds of information about words that could help children figure out meanings on their own”

Carlo, August, McLaughlin, Snow, Dressler, et al., 2004, p. 205

- Referring to a successful fifth-grade intervention study that included morphology, cognates, academic English, and multiple meanings, with ELLs and native English speakers
- see also Kieffer & Lesaux, 2008

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When students are aware of Spanish-English cognates, they resolve vocabulary tasks more effectively.

Nagy, Garcia, Durgunoglu, & Hancin-Bhatt, 1993

Uncover and Discuss False Cognates!

insect/insecto, observe/observar

Most Spanish words that end in -ción can be translated into English by changing the suffix to "-tion"

- constitución* means "constitution"
- nación* means "nation"

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The Latinate Nexus

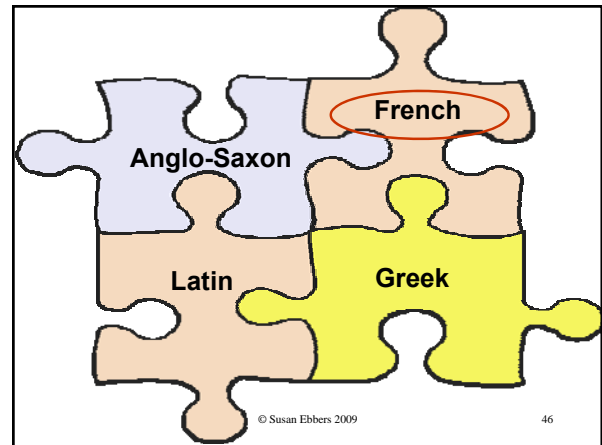
Romance Languages, from Latin-speaking Romans

Morta: Roman goddess of death

“The Latin root for the word *death* is *mort*. The French spell it *morte* and the Spanish, *muerte*. In English, we have a network of related words: *mortal, immortal, mortality, mortician, mortuary, postmortem*, etc.”

Ebbers, p.207, 2004

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French Invades English

- 1066 William the Conqueror invades England
- Normans rule England, speak French
- French is the required language of the upper classes
 - justice, country, chivalry, parliament, duchess, royal, bacon, beef, design, leisure, joy, flowers
- Peasants continue to speak Old English
- Old English segues into Middle English
- ~10,000 French words absorbed into English

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French Spellings & Structure

- French is based in Latin roots
- é pronounced /ā/: fiancé, sauté, risqué
- et pronounced /ā/: ballet, buffet, croquet
- ge /zh/: barrage, genre, beige, rouge
- ch /sh/: charade, chic, parachute
- qu /k/: antique, mannequin, quiche
- ine /een/: machine, limousine, marine

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Spelling Patterns for /sh/

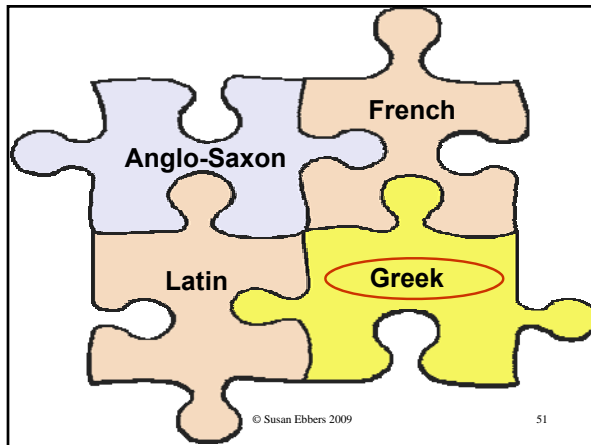
Germanic sh	Latin ci, ti, si	French ch
shoe	official	chef
shine	spacious	charade
fish	ratio	chivalry
ship	nation	chauffeur
should	mission	panache

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Viva La France, Viva La Difference!

Voila! En route from the ballet, we enjoy champagne, savor gourmet hors d'oeuvres, and engage in risqué badinage, while our chauffeur—not much of a chaperone—whisks us to an avant-garde soirée.

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Greek Structure & Spellings

- ch for /k/: chorus, technology, scholar
- ps for /s/: pseudonym, psychology, psalm
- ph for /f/: graph, spherical, epitaph, emphatic
- th: theology, theater, thesis, sympathy
- y for /i/: symphony, typhoid, rhythm
- x for /ks/: dyslexia, lexicon, oxygen
 - x also represents /z/: xenophobic, xylophone
- long final e: epitome, anemone, hyperbole

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Linking the Curriculum Through Morphological Families

astro is Greek for stars, heavens

aster (flower)
astronomer
astrology
astrobiology
astrophysics
disaster
*** asterisk ***

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Greek Combining Forms (roots)

graph	hydro	geo
bio	phon	neuro
ortho	scope	photo
therm	crat	psych
chron	phobe	pseud
onym	crypt	path
logy	sphere	the, theo

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Counting in Greek and Latin

	Greek	Latin	
1	mono	uni	centimeter
2	di	bi, du, duo	hemisphere
3	tri, tris	tri	octave
4	tetra	quadri	pentagon
ten	deca, deka	deci	monopoly
half	hemi	semi	
many	poly	multi	

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Greek and Latin in Content Reading

Germanic: Earth	
Latin: terra	Greek: geo
terrain	geode
terrace	geology
territory	geometry
terracotta	geocentric
Mediterranean	geography
terrestrial	geomagnetic
subterranean	geochronology

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grammar school
grammar books
rules of grammar
grammatical
grammatically
ungrammatical
ungrammatically
grammatology

**gram, graph
to write,
written**
Greek

grammar

telegram
mammo**gram**
histo**gram**
anag**ram**
cryptog**ram**
monog**ram**
electrocardiog**ram**

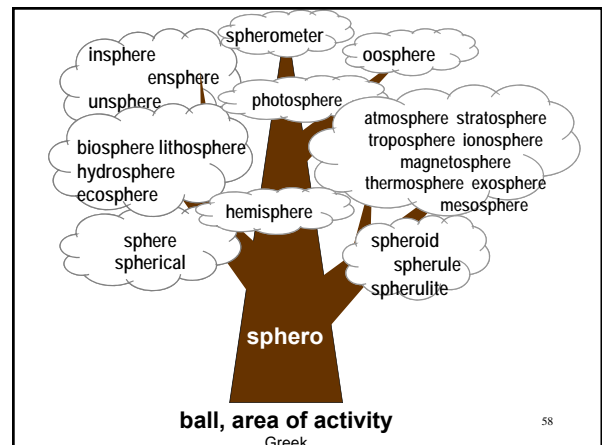
photograph
polygraph
mimeog**raph**
phonog**raph**
telegraph
parag**raph**

photographer
cartog**rapher**
geog**rapher**
cryptog**rapher**
autobiog**rapher**
xylog**rapher**
paleog**rapher**
biog**rapher**

graph

graphite
grapheme
graphologist
graphic
graphically

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In Context

Look Outside - Look In

Look outside the word, at context: Grocery shopping was difficult, due to her *dyscalculia*. She filled her cart with more than she could afford.

Look inside the word: dys calculia

Use the analogy strategy: I don't know what *dyscalculia* means but I do know that *dyslexia* means you have trouble reading and I know that a calculator helps you do math, so...I think maybe dyscalculia might be when you have trouble doing math. That would make shopping a challenge.

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The Strategy of Analogy

Think Aloud:

I don't know what *biosphere* means but I do know that *atmosphere* and *hemisphere* have to do with earth which is a sphere and I do know that a *biography* is the story of someone's life, so....along with the context clues, I think maybe *biosphere* might be a specific place on earth where specific life exists.

(Anita Archer on Content Reading)

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Grade 7
Exploring the Titanic

The story of the *Titanic* began before anyone had even thought about building the great ship. In 1898, fourteen years before the *Titanic* sank, an American writer named Morgan Robertson wrote a book called *The Wreck of the Titan*. In his story, the *Titan*, a passenger ship almost identical to the *Titanic*, and labeled “unsinkable,” sails from England headed for New York. With many rich and famous passengers on board, the *Titan* hits an iceberg in the North Atlantic and sinks. Because there are not enough lifeboats, many lives are lost.

Real Spelling Matrices, courtesy of Pete Bowers
www.wordworkskingston.com

busy “occupied”	ly	body	es
	er		es
	est		es
	ed		like
ing	ness	man	
es		men	
		woman	
		women	

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Object of Game: Build as many words as possible
Each partner writes one morpheme on each of six paper “chips”. Put all 12 chips in a pool. Partners build a word, write it, and reuse the chips. Drop or double vowels as needed for spelling.

photo	graph	y	Partner A	Partner B
			eme	phono
tele	graph	ic	tele	ist
			graph	bio
bio	graph	er	er	y
			ic	photo
			logy	scope

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Sort the Spelling and Speech Patterns
school, which, champagne, chronic, Chardonnay

Germanic /ch/	French /sh/	Greek /k/
child	chef	chaos
chin	charade	archaic
ditch	chivalry	charisma
chide	chauffeur	technology
such	panache	anchor

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Sort the Spelling and Speech Patterns
phoebe, passé, anemone, side, appliqué, psyche

Germanic final silent e	French long a /ā/	Greek long e /ē/
stone	fiancé	epitome
take	sauté	sesame
bridegroom	risqué	catastrophe
outside	touché	calliope
mine	puree	Penelope

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Language Personalities

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So Many Shades Of Meaning

“A Positive Emotion”		
content	pleased	delighted
glad	happy	carefree
lighthearted	merry	joyous
joyful	overjoyed	cheerful
cheery	jolly	blissful
satisfied	gladsome	blithe
ecstatic	euphoric	exhilarated
jubilant	exultant	elated

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Anglo-Saxon	French	Latin	Greek
bathroom	toilet	lavatory	
drawing	portrait	picture	photograph

Sort each row of synonyms by origin:

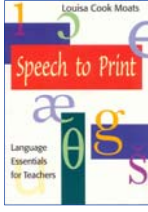
- royal, king, monarch, regal
- chaperone, watchman, sentinel
- chagrin, shame, embarrassment
- victory, win, triumph
- motion picture, show, cinema, theater

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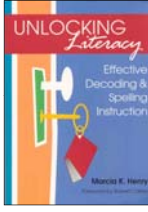
A-S	French	Latin	Greek
drawing	portrait	picture	photograph
king (C.)	royal	regal	monarch
wreck	sabotage	subvert	
watchman	chaperone	sentinel, sentry	
shame	chagrin	embarrassment, humiliation	
hearten	encourage	inspire	
show	cinema	motion picture	theater
fatherly		paternal	patriarchal
thought	perspective, opinion		idea
win		victory	triumph
holy	sacred	consecrated	

See also Bryson, 1990; King, 2000; Lederer, 1991 69

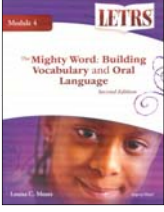
Professional Morphology Guides



Moats, 2000



Henry, 2003




Moats, 2009
LETRS Module 4

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Literature for Linguistic Awareness

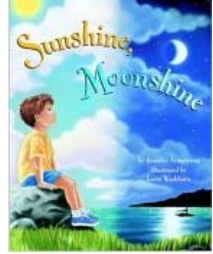
The Unbreakable Code by Sara Hoagland Hunter

Portrays the quiet pride of a Navajo code talker as he explains to his grandson how the Navajo language, faith, and ingenuity helped win World War II

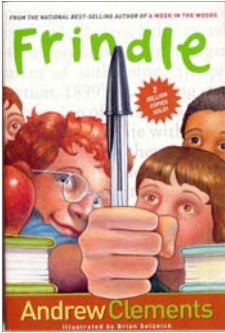


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- Sunshine, Moonshine
 - by Jennifer Armstrong
 - compound words
- Once There Was a Bull... (frog)
 - by Rick Walton
 - compound words
- Fortunately
 - by Remy Charlip
 - prefix un-
 - unfortunately,
 - teacher add: mis-
 - misfortune, misfortunate



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Etymology, Word Origins

- Frindle
 - by Andrew Clements
 - grades 4-8, chapter book
 - word origins, coining new words
 - Samuel Johnson's dictionary
- Cryptomania!
 - by Edith Hope Fine
 - grades 4-8, graphic book
 - Greek and Latin roots in math and science

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“Rowling” into Morphological Awareness




expelliarmus
 "expelo" L. to push or drive out
 + "arma" L. weapon
 expecto patronus
 wingardium leviosa
 prior incantato
 lumos
 source: www.hp-lexicon.org

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Closing Thoughts


- Keep it playful and engaging
- Model enquiry and interest in words
- Build networks, seek associations
- Develop word consciousness
 - including morphological awareness
- Provide distributed review
 - especially via morphemic analysis in context
 - teach, model, and apply the outside-in strategy

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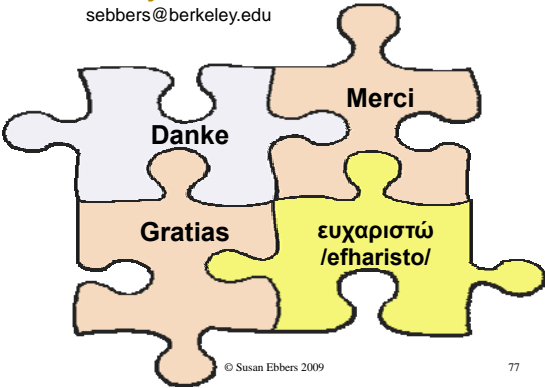
Morphology is only one aspect of literacy.

May you have the **hindsight** to know where you've been, the **foresight** to know where you are going, and the **insight** to know when you have gone too far.



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Thank you!
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 blog <http://vocablog-plc.blogspot.com> (check it out!)

Sopris West Publications:

- Vocabulary Through Morphemes: Suffixes, Prefixes, and Roots for Intermediate Grades
- Power Readers (consumable interactive decodables with pre-reading and post-reading material)
- Supercharged Readers: Decodable chapter books with strong vocabulary component
- Daily Oral Vocabulary Exercises: A Program to Expand Academic Language in Grades 4-12

Anglin, J.M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development* 58 (Serial No. 238).

Baumann, J.F., Edwards, E., Font, G., Treshinski, C.A., Kame'enui, E.J., & Olesnik, S. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly*, 37(2), 150-176.

Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.

Beminger, V., & Richards, T. (2002). *Brain literacy for educators and psychologists*. San Diego: Academic Press.

Bortram, R., Baayen, R.H., & Schreuder, R. (2000). Effects of family size for complex words. *Journal of Memory and Language* 42(3), 390-405.

Bravo, M.A., Hiebert, E.H., & Pearson, P.D. (2007). Tapping the linguistic resources of Spanish-English bilinguals: The role of cognates in science. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 140-156). New York: Guilford.

Bryson, B. (1990). *The mother tongue: English and how it got that way*. New York: Avon Books.

Carlisle, J.F. (2000). Awareness of the structure and meaning of morphologically complex words: Impact on reading. *Reading and Writing*, 12, 169-190.

Carlisle, J.F., & Katz, L. (2006). Effects of word and morpheme familiarity on reading of derived words. *Reading and Writing*, 19(7), 669-693.

Carlo, M.S., August, D., McLaughlin, B., Snow, C.E., Dressler, C., Lippman, D.N., et al. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39(2), 188-215.

Deacon, S. H., Parrila, R. & Kirby, J. R. (2008). A review of the evidence on morphological processing in dyslexics and poor readers: A strength or weakness? In G. Reid, A. Fawcett, F. Manis, & L. Siegel (Eds.), *The Sage Handbook of Dyslexia*. SAGE publishers.

Ebbers, S.M., & Denton, C.A. (2008). A root awakening: Vocabulary instruction for older students with reading difficulties. *Learning Disabilities Research & Practice*, 23(2), 90-102.

Edwards, E.C., Font, G., Baumann, J. F., & Boland, E. (2004). Unlocking word meanings: Strategies and guidelines for teaching morphemic and contextual analysis. In J. F. Baumann, & E. J. Kame'enui (Eds.), *Vocabulary instruction: Research to practice* (pp. 159-176). New York: Guilford Press.

Finkenstaedt, T., & Wolff, D. (1973, Winter). *Ordered Profusion: Studies in dictionaries and the English lexicon*. Heidelberg.

Graves, M.F. (2006). *The vocabulary book: Learning and instruction*. New York: Teachers College Press.

Henry, M. (1997). The decoding/spelling curriculum: Integrated decoding and spelling instruction from pre-school to early secondary school. *Dyslexia*, 3, 178-189.

Henry, M.K. (2003). *Unlocking literacy: Effective decoding and spelling instruction*. Baltimore: Paul H. Brookes.

King, D. (2000). *English isn't crazy: The elements of our language and how to teach them*. Baltimore: York Press.

Kieffer, M. J., & Lesaux, N. K. (2008). The role of derivational morphology in the reading comprehension of Spanish-speaking English Language Learners. *Reading and Writing: An Interdisciplinary Journal*, 21(8), 783-804.

Lederer, R. (1991). *The miracle of language*. New York: Pocket Books.

Mann, V.A., & Singson, M. (2003). The little suffix that could: Linking morphological knowledge to English decoding ability. In E. Assink & D. Sandra (Eds.) *Morphology and reading: A cross-linguistic perspective*. Amsterdam: Kluwer Publishers.

McBride-Chang, C., Wagner, R.K., Muse, A., Chow, B.W., & Shu, H. (2005). The role of morphological awareness in children's vocabulary acquisition in English. *Applied Psycholinguistics*, 26, 415-435.

McCardle, P., & Chhabra, V. (2004). *The voice of evidence in reading research*. Baltimore: Brookes.

Moats, L. (2000). *Speech to print: Language essentials for teachers*. Baltimore: Paul H. Brookes Publishing Co.

Moats, L.C. (2009). *LETRS Module 4: The mighty word: Building vocabulary and oral language* (2nd ed.). Longmont, CO: Sopris West.

Mountain, L. (2005). Rooting out meaning: More morphemic analysis for primary pupils. *The Reading Teacher*, 58-8, 742-749.

Nagy, W.E. (2007). Metalinguistic awareness and the vocabulary-comprehension connection. In R.K. Wagner, A.E. Muse, & K.R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 52-77). New York: Guilford Press.

Nagy, W.E., & Anderson, R.C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19, 303-330.

Nagy, W.E., Anderson, R.C., Schommer, M., Scott, J.A., & Stallman, A.C. (1989). Morphological families in the internal lexicon. *Reading Research Quarterly*, 24(3), 262-282.

Nagy, W., Beminger, V., & Abbott, R. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle school students. *Journal of Educational Psychology*, 98(7), 134-141.

Nagy, W.E., Beminger, V., Abbott, R., Vaughan, K., & Vornmeulen, K. (2003). Relationship of morphology and other language skills to literacy skills in at-risk second-grade readers and at-risk fourth-grade writers. *Journal of Educational Psychology*, 95(4), 730-742.

Stahl, S. A. (1999). *Vocabulary development*. Newton Upper Falls, MA: Brookline Books.

Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56(1), 72-110.

Willingham, D.T. (2002, Summer). Allocating student study time: Massed versus distributed practice. *American Educator*, 47, 37-39.

Wolfe, M. (2007). *Proust and the squid: The story and science of the reading brain*. New York: Harper.