

**Dyslexia: SLP Role
Fall OSHA Conference**

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Disclosures

- Jennifer Larsen is employed by Portland State University. She has no other financial or non-financial disclosures.

Agenda

- **Update on Oregon Dyslexia Legislation and Implementation**
- **Linguistic Contributions to Reading and Spelling**
- **Overview of Dyslexia**
- **Assessment and Intervention for Word Knowledge**
- **Questions and Discussion**

PART I

**UPDATE ON OREGON DYSLEXIA
LEGISLATION**

Oregon's Dyslexia Legislation

- **2015 Legislative Session: SB 612**
 - Department must annually develop a list of approved dyslexia trainings
 - One K-5 teacher in each K-5 school must complete the dyslexia training by Jan 1, 2018
 - Department must develop a plan to ensure that every student first enrolled in K or 1 in a public school receives a screening for risk factors of dyslexia

Oregon's Dyslexia Legislation

- **2017 Legislative Session: SB 1003**
 - Extends the deadline for meeting training requirements until July 1, 2018
 - Requires that each school district ensures that every student is screened for risk factors of dyslexia using a screening test identified by the department when the student first enrolls in a public school in K (or grade 1) beginning in the 2018-2019 school year

SB 1003

The Department shall:

- √ identify screening tests that are cost effective
- √ the tests administered to students in kindergarten must take into account:
 - phonological awareness
 - rapid naming skills
 - correspondence between sounds and letters

SB 1003

- And family history of difficulty in learning to read IF the student shows risk factors for reading difficulties, including dyslexia



SB 1003

- The Department shall provide guidance for **notifications** to be sent by school districts to parents of students who are identified as having risk factors for reading difficulties, including dyslexia.

SB 1003

- The department shall develop guidance regarding **best practices for assisting students** who are identified through screening or through parental input as showing risk factors for reading difficulties, including dyslexia.

SB 1003

- The Department of Education shall submit a report by September 15, 2018, including recommendations for legislation, to the legislature **about best practices for screening students for risk factors of dyslexia and instructional support** for students who show risk for or who are identified as having dyslexia.

Planning to Meet Screening Requirements

TIMELINE	ACTIVITY
FALL 2017	Draft OARs related to screening requirements and gain approval from SBOE
WINTER 2018	Develop list of approved screeners. Develop guidance for parent notification.
SPRING 2018	Districts select a universal screener and plan for administration.
FALL 2018	Districts begin universal screening in kindergarten

What Does the Law Require for the Training?

- Comply with the knowledge and practice standards of an international organization on dyslexia;
- Enable teacher to understand and recognize dyslexia; and
- Enable the teacher to implement instruction that is systematic, explicit, and evidence-based to meet the educational needs of students with dyslexia

Who Will Complete the Required Training?

- The teacher who completes the dyslexia-related training must be a licensed or registered teacher serving in a position teaching students in any configuration of grades kindergarten through fifth grade and assigned to the school building at least .50 FTE. The position may include, but is not limited to, that of classroom teacher, reading specialist, special educator or English language learner.

What if a teacher in our building has already completed the dyslexia training?

- A K-5 teacher from each school is required to complete a training opportunity included on the Department's annual list.
- If a teacher has previously completed a training opportunity that is included on the list, he/she will be considered to have met the training requirement.



The Training Must:

- Include content in the following areas:
 - **Understanding and recognizing dyslexia;**
 - Using evidence-based practices to systematically and explicitly teach the **foundational skills in reading;** and
 - **Intensifying instruction** to meet the needs of students with severe reading difficulties, including dyslexia.
- 581-002-1805 (2)(b)

Understanding and Recognizing Dyslexia

- Definition of Dyslexia
- Prevalence of Dyslexia/Common Co-Morbid Exceptionalities
- Neurological Aspects of Dyslexia
- Typical Reading Development
- Indicators of Dyslexia by Age/Grade Level
- Overview of Screening/Assessment for Dyslexia
- Power of Early Intervention
- Overview of Accommodations/Assistive Technology
- Common Dyslexia Myths/Misconceptions

IDA Knowledge and Practice Standards for Teachers of Reading

- A. Foundation Concepts about Oral and Written Learning
- B. Knowledge of the Structure of Language
- C. Structured Language Teaching (Phonology, Phonics and Word Recognition, Fluency, Automatic Reading of Text, Vocabulary, Text Comprehension, Handwriting, Spelling, and Written Expression)
- D. Interpretation and Administration of Assessments for Planning Instruction
- E. Knowledge of Dyslexia and Other Learning Disorders

Training Requirements

The required dyslexia training consists of 3 focus areas: Understanding and Recognizing Signs of Dyslexia, Foundational Skills of Reading, and Intensifying Instruction

A teacher must complete a training or combination of trainings that addresses all 3 focus areas.

- ### List of Approved Training Opportunities
- The final list of approved trainings was posted on 07.31.17
 - The final list includes 16 vendors offering trainings that address 1, 2, or all 3 of the required focus areas.
 - The final list includes both face-to-face and online training opportunities

Approved Training Opportunities

PDX Reading Specialist	Reading Rockets	WILDD	ORBIDA
IMSE	Deborah Glaser	Slingerland	June Shelton School
Pearson	Education Northwest	University of Oregon	Mastery Learning Institute
The Blosser Center	95% Group	Voyager Sopris Learning	Mayerson Academy

List of Approved Training Opportunities

Vendor	Title of Training	Focus Area(s)	Contact	Format	Length of Training	Training Dates	Location	Minimum Participants	Cost
The Blosser Center	Central Group 60/60/60/60 Training Course	V	Lynn Adams, lynn.adams@theblossercenter.org, 503.855.4134	Face-to-Face	30 hours, 3 sessions over 5 days		The Blosser Center, Portland	25	Cost per person of \$1000 total for 18 days for trainer + \$6000 total for 18 days for trainer + \$80 per teacher for materials
95 Percent Group	Understanding Dyslexia	V	Susan Hill, s.hill@95percentgroup.com, 847.498.8202	Online	2 hours		Online	NA	\$200 per teacher
Voyager Sopris Learning	Language Essentials for Teachers of Reading and Spelling (LETRS)	V	Amy Dick, amy.dick@voyagerlearning.com, 1.800.347.6147 x120	Face-to-Face	60 hours, 6 hours per day for 10 days		See district request	40	Cost for trainer per day is \$3750 to \$4200 + cost of LETRS modules (\$30 per module per teacher)
Oregon Department of Education	K-2 Summer Reading Academy	V	Carrie Thomas Beck, Ph.D., carrie.thomas.beck@state.or.us, 503.947.5833	Face-to-Face	18 hours, 6 hours per day for 3 days	July 31 - August 2, 2017	Eugene	50	No cost for targeted focus and priority schools

- ### Funding for Training
- SB 182
- Establishes Educator Advancement Council to provide resources related to educator professional learning and other educator supports
 - \$1.9 million has been allocated to reimburse school districts for the required dyslexia training in the 2017-2019 biennium

- Thank you to Dr. Carrie Thomas-Beck, ODE Dyslexia Specialist for providing this update.
- Questions or comments about legislation and process for implementation?
 – carrie.thomas-beck@state.or.us

PART II

Linguistic Contributions to Reading and Spelling Development

Development of Decoding and Spelling

- Speech to print: process of integrating additional linguistic information into existing lexical representations (or building entirely new representations with unfamiliar words seen only in print)
- The vast majority of children require specific instruction to learn to map speech onto print
- Different linguistic skills support this process, depending on factors such as developmental stage, reading proficiency, task, context...
 - Moats, 2010; Masterson & Apel, 2014

Repertoire/Multilinguistic Explanation

(Masterson & Apel, 2014)

- Multiple aspects of language are involved in spelling and decoding
- Ex. beginning readers/spellers are not necessarily limited to phonetic strategies
- Degree to which a child uses different aspects of linguistic information changes over time
- Broadly, we can consider phonemic awareness, orthographic knowledge, morphology, and ability to apply meaning to spelling (semantics)

Phonemic Awareness

Schuele & Boudreau, 2008

- Awareness of individual sounds within words
- Ability to use that awareness to decode and spell words
 - Ex. Sound out individual letters, then blend into word
 - Ex. Represent every sound in a word with a letter (or group of letters)

Orthographic Knowledge

Apel, 2011

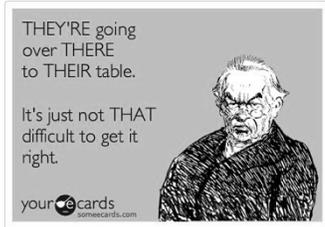
- Information that is stored in memory that allows us to represent spoken language in written form and includes:
 - Knowledge of orthographic patterns specific to a language
 - What letters can and cannot be used to represent specific sounds
 - Which letter combinations are permissible
 - Constraints on the position of specific letters within a word
 - Mental orthographic images of specific words

Morphological Knowledge

Nippold, 2016

- Awareness of the internal structure of words
- Grammatical: base words and grammatical affixes
 - Be/being; shoe/shoes
- Derivational: base words and derivational affixes
 - Attend, attention, inattention
- What spelling patterns govern these combinations?

Semantic Knowledge



“Mine is a long and sad tale!” said the Mouse, turning to Alice and sighing.
 “It is a long tail, certainly, “ said Alice, looking down with wonder at the Mouse’s tail; but why do you call it sad?”

Carroll, 1865

Expectations/Development

- Emergent/Pre-reading
 - Birth-5
- Initial Decoding
 - K-1
- Confirmation/Fluency
 - 2-3
- Reading to Learn
 - 3-8
- Multiple viewpoints
 - High school
- Construction/Reconstruction
 - College and beyond

Emergent/Pre-reading

- Developing letter-sound knowledge
- Developing phonological awareness
- Recognize some words but very bound to context
- Typically in preschoolers, entering kindergarten
- Logos, own name
- Error examples: will read a word below a picture as the name of that picture
- Book/print awareness

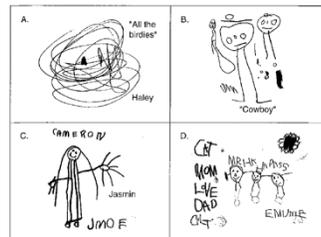
<p>Random Marks</p>	<p>Representational Drawing</p> <p>"This is my sister."</p>	<p>Drawing Distinct from Writing</p> <p>"A flower for my Mom."</p>
<p>Mock Linear or Letter Like</p> <p>"A note for Daddy"</p>	<p>Symbol Salad</p> <p>"Macaron"</p>	<p>Partial Phonetic</p> <p>"K" "cat" "BB" "baby" "ILU" "I love you"</p>



"mana"

Emergent Spelling

FIGURE 1-6 Early Emergent Writing, Adapted with permission from Hoodspet, 18 (1996).



Larsen 11/2010

Initial/Decoding

- Instruction plays key role in reaching this stage
- Letter-sound knowledge
- Phonemic-level awareness
- Awareness of short vowel rimes begins
- Basic word recognition
- "Cracking the code"
- Word attack skills

Early Conventional Spelling

E L V I O V I e
 ← ♥ ← ♥
 M E G → ♥ →
 K N R U K M

Larsen 11/2010



Larsen 11/2010

FIGURE 1-8 Middle to Late Letter Name-Alphabetic Spelling: Kathy's Farewell Note to her First Grade Teacher

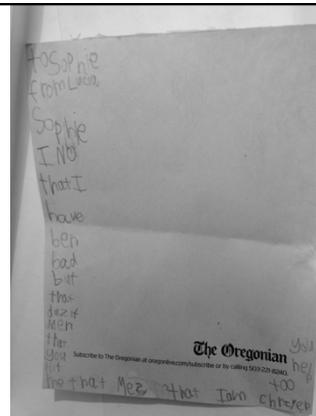
I will mes you. I
 rile dot onet you to lev.
 I Love you So mich.
 But I hoq you have
 a grat tim.

Larsen 11/2010

those out of practice reading young children's writing, Kareem wrote, "If I had a brontosaurus I would tell him to get the bad guys so the cops would have a rest. And I would tell him to fix fires so the firemen would get a rest.")

IF I HAD A
 I W D TAL H M BRASS.
 G+ THE BAD GIES TO
 SO THE COPS W D
 HAV A RAS
 AND I W D TAL
 SO TO F+ FETS
 W D GA I M MANS
 HAST

Larsen 11/2010

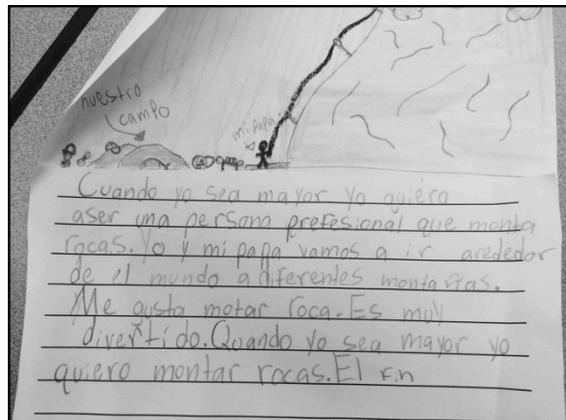
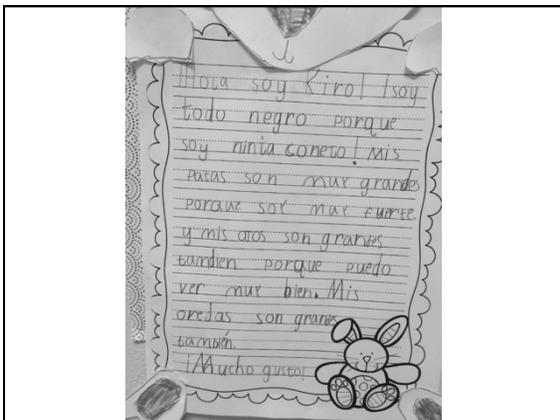
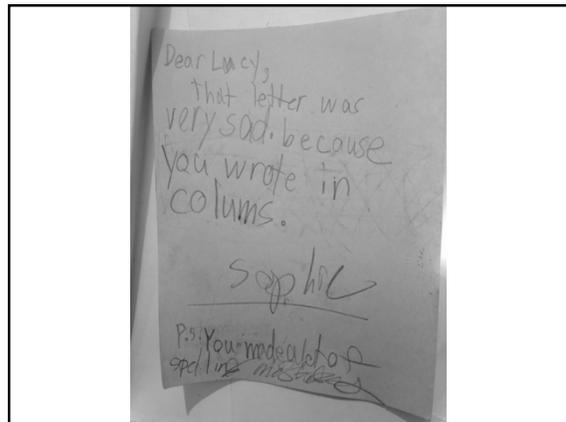
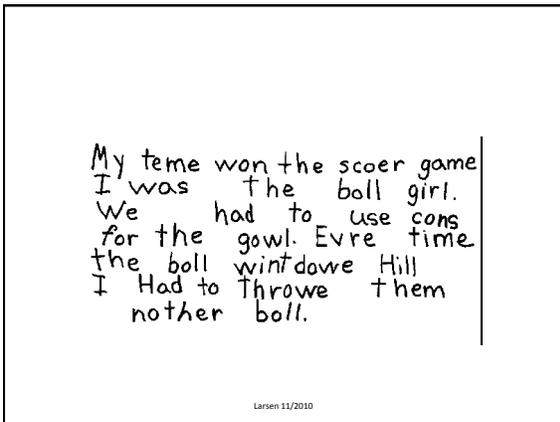


Confirmation/Fluency

- Quick and accurate word recognition
- Fluent reading
- Beyond short vowel spellings into knowledge of orthographic patterns
- Reading paragraphs, articles, short books
- Writing sentences, stories and paragraphs
- End of this stage = reading to learn

Fluency/Confirmation

- Still developing:
 - Knowledge of derivational morphology and how to represent in spelling
 - Spelling patterns associated with grammatical spellings
 - Spelling of homophones or similar sounding words
 - Effects of lack of mental orthographic images apparent, especially with higher level literate vocabulary (interacts with morphological knowledge)

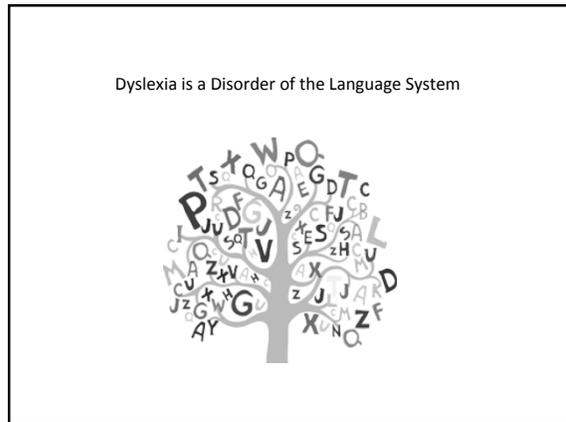


Dear Harrison,
 your flight. it has
 been bad since I broke
 my foot. I have fallen
 down approximately 500
 times! But there is a
 up side. I dont
 have to go to swimming.
 I dont have to go
 on hikes (alghae sometimes I
 enjoy them) I get to
 play a lot of vidio games!
 unfortunately this happend during
 summer so I missed a
 lot of fun stuff. But
 enough of that! how are
 you? how school going?
 hows candle? tell me everything!
 your cousin
 Jan.

I am crazy about
 food!! I especia
 love dogs because
 there odibent
 I like to play vidio games
 My favorite desert is
 and tipe of PE and
 ice cream. my fave
 pizza really makes
 my day. Hope I
 can be a scintist
 when i grow up I
 am thankful for
 my house. and Pasim
 adan nature. Im Hoping
 when i see my
 mom. I remember
 a few of my
 favorite things I
 feel awesome

PART III

DYSLEXIA
CHARACTERISTICS AND DIFFERENTIAL
DIAGNOSIS REVIEW



Dyslexia is...

- a specific learning disability
- neurobiological in origin
- characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities
- the result of a deficit in the phonological component of language
- often unexpected in relation to other cognitive abilities and effective classroom instruction
- secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.

IDA/NICHD, 2002

Dyslexia is not...

- A disorder of the visual system
- An advantage
- Something we can "cure"
- Something that only gifted kids have
- Letter reversals

Dyslexia Basics

IDA 2017

- Prevalence reports are widely variable (5-20%)
 - Likely due to diagnostic procedures, expectations and cultural considerations
- Occurs in people of all backgrounds and intellectual levels
- Occurs equally in males and females
- There is a genetic component (family history)
- Has been documented in speakers of many languages
- Can be co-morbid with other disorders including language impairment and ADHD

Early Symptoms

- Family history of dyslexia or other reading problems
- Difficulty learning letter names
- Difficulty learning letter sounds
- May have difficulty producing phonologically complex words

Early Elementary

- Lack of phonemic awareness
- Difficulty learning letter sounds and names (also lack of fluency/automaticity)
- Difficulty learning to sound out words, even simple ones
- Illogical errors in decoding and spelling
- Anxiety about reading and spelling tasks
- Oral language WNL

Later Elementary and Beyond

- Slow, laborious decoding
- Significantly impaired spelling
- May start to see secondary effects due to lack of exposure to age- and grade-level written text; oral language measures may fall below expected levels

Reciprocity

- As children become independent readers (or are expected to do so), written language becomes a primary source for language learning and performance
- Children who are unable to access grade level texts may begin to exhibit symptoms consistent with a language impairment

Differential Diagnosis

(Lombardino & Gauger, 2014; Berninger, Richards & Abbot, 2015)

- Intervention planning requires a diagnostic formulation
- Co-morbidity
- Differentiating between LI and dyslexia can be difficult-shared symptomatology
 - Phonological processing deficits appear in both disorders
 - Decoding and spelling deficits may appear in both disorders
 - Working memory is implicated in both disorders
 - Secondary effects of dyslexia are similar to LI
 - Heterogeneity is a key feature of both disorders

Differential Diagnosis, cont

- Dyslexia diagnosis is shared by many disciplines
 - SLPs
 - Educational team
 - School or private psychologist
 - Neuropsychology
- May result in different formulations or definitions
- This can add to the difficulty

Catts, Adlof, Hogan & Weismer, 2005

	Poor WR	Typical WR
Typical LC	Dyslexia	All is well!
Poor LC	Language impairment	Language impairment (?)

Differential Diagnosis-Key Points

(Lombardino & Gauger, 2014)

- SLPs are “allowed” and fully qualified to diagnose dyslexia
- In practice, many SLPs may not “officially” diagnose dyslexia (especially in school settings), but a diagnostic formulation is necessary.
- Relative performance on spoken and written language tasks is the key
- Keep in mind that older children with dyslexia may present with depressed scores on language assessment-but you will still see a pattern of relative strengths and can rely on developmental and family history to aid your decision

PART IV Intervention

Repertoire model applied to
intervention
Planning intervention
Techniques and activities

Repertoire Theory and Intervention

- Five components
 - Phonemic awareness
 - Orthographic pattern awareness
 - Semantic awareness
 - Morphological awareness
 - Mental orthographic images (MOIs)
 - Also...
 - Relative strengths and weaknesses of each
 - Metalinguistics
 - Other related cognitive capacities
- Orthographic pattern awareness (includes phonics)
 - Sound-letter knowledge
 - Spelling patterns (ex. Long vowel spellings)
 - Semantic awareness
 - Meaning and spelling interactions, ex. homophones
 - Morphological awareness
 - Inflected spellings to signal grammatical class
 - Derivational-word relationship signaled by spelling (roots, prefixes, suffixes)
 - Mental orthographic images (MOIs)
 - Mental “picture” of a word that supports automatic recognition and spelling

Decoding Assessment

- Standardized assessments and curriculum based assessments can give valuable information
- Attend to fluency and automaticity as well as accuracy
- Attend to error types
- Real word (MOIs) vs. nonsense word decoding (orthographic knowledge)

- Curriculum-based assessments
- Progress monitoring tools/screenings (ex. DIBELS)
- Standardized assessments
 - Test of Word Reading Efficiency
 - TILLS subtest
 - Others?

Descriptive Spelling Assessment

Bear et al 2016

- Spelling is a window onto word knowledge
- The type of spelling error can reveal deficits in the specific underlying language skill(s) needed to correctly spell and read (Brimo, 2013)
- This is important information to direct intervention
- May also aid in differential diagnosis
 - Child with dyslexia is likely to have many errors related to phonemic awareness
 - Child with LI may have more errors related to semantic or morphological awareness

Spelling Assessment Procedure: Elicitation

- Selecting words
 - Should give opportunity to spell a variety of orthographic and morphological patterns
 - Depending on age, grade, language status and developmental levels
 - Errors are informative so collect lots!
- Administration
 - Standard spelling test procedures
 - Can support by using word in a sentence
 - Consider pointing out errors and asking them to try again (without erasing the first attempt)

Published Spelling Inventory-Based Assessments

- Words Their Way (Bear et al, 2016)
 - Primary, Elementary & Upper Level
- SPELL (Masterson et al 2012)
- Curriculum-based measures?

Spelling Analysis Practice

- In groups, analyze the spelling sample
- In order to spell each word correctly, child must rely on one or more specific linguistic skills.
- For each word, identify which linguistic component(s) are involved in the spelling errors.
- Which linguistic skills seem most problematic?
- How would this guide our intervention?

Word Knowledge Intervention: General Principles (Bell et al 2013)

- Address both spelling and decoding
- Attend to underlying linguistic skill(s)
- Systematic/explicit instruction
- Strategic/metacognitive instruction
- Combination of word study and authentic reading and writing tasks to allow practice and application, preferably within the same session

Systematic/Explicit

- Incorporate both spelling and decoding practice
- Combine discrete, decontextualized practice with authentic reading and writing activities
- Review as you go
- Have explicit discussions with students about spelling patterns, including “oddballs”
- Match sequence of instruction to what we know about spelling acquisition
- Emphasize connection between spelling and meaning
- Word selection

Sorting/Guided Discovery

- Basic procedure used frequently across linguistic areas
- Involves presenting client/student with categories of words that illustrate pattern or rule being addressed
- With needed levels of support from SLP, student sorts and determines patterns

Overview of Spelling Acquisition

Wascowicz et al, 2012

- Consonants b, p, t, d, v, z, k, j, f, s, m, n, x
- Short vowels
- Consonants r and l before vowels
- Consonants g, h, w, y, qu
- Consonants k vs. hard c
- Consonants r and l after a vowel
- Digraphs and ng, th, wh, sh, ck
- Within word doubling ff, ss, zz, ll
- Long vowels
- Diphthongs
- Complex consonants (ex. Judge)
- R spellings
- Grammatical morphological spellings
- Derivational morphological spellings

Selecting Words: Considerations

Wascowicz et al, 2012

- | | |
|--|---|
| • Position of spelling pattern within word | • Beginning<end<middle |
| • Number of syllables | • More syllables = harder |
| • Other spelling patterns in the word | • Depending on stage of instruction; consider no “new” patterns |
| • Familiarity | • Familiar words are easier to spell |
| • Morphological structure | • Affixes increase difficulty; transparent vs. opaque |

Strategic

- Support self-assessment and self-monitoring
 - Support students in developing strategies to spell and read unfamiliar words
 - These will depend on the student, and the focus on word knowledge instruction.
- Examples:
- I need to represent each sound I hear
 - Some letters do not make their own sound
 - “V” at the end of the word usually is spelling -ve

Mental Orthographic Images

Apel, 2008

- “Picture” (clear and complete image) of a word so that it can be immediately retrieved when needed to read or spell
- Addressed all along the way
 - With each pattern or strategy, should include MOI work specific to that context
 - Generally, MOIs are most influential when the word cannot be correctly spelled with the expected letter or group of letters; or when there are multiple options

- Examples when addressing consonants
 - Different sounds for same consonants (rose/froze)
 - Uncommon spellings-oddballs (island, one)
- Short vowel patterns
 - Bed and head
 - Vowels followed by /r/ ex. at vs art
- Long vowels and complex vowel spellings
 - Intensive focus on MOIs usually required
 - Which pattern goes with which word?
 - Dream or dream?
 - Fall, auto, caught, gone, thought....

- Inflectional morphology
 - MOI work needed when spelling patterns don't apply
 - Ex. chief/chiefs
- Derivational morphology
 - Heavy emphasis usually needed
 - Words where the same meaning is signaled by differently spelled affixes
 - Actor, teacher, beggar
 - Base words with more than one option for suffix
 - Attend/attention vs. extend/extension
 - Oddballs
 - Gas/gaseous, wonder/wondrous

Basic Procedures

Wasowicz et al 2012

- “Take a picture”
- Does this word look “funny”?
- Word inside the word (mat/mate)
- “Glue” the meaning to the spelling
 - Ex. My sister *made* me *mad*.
 - Ex. *Hey*, that horse ate some *hay*.
- Practice visualization of words
 - How many letters are in the word?
 - How many vowels/consonants?
 - Can you spell the word backward?
- Letter fill-ins
h___ s e

Mental Pictures
Mental pictures help me read and spell words quickly and easily

What sound am I spelling?
ch, F

What are some example words with this sound?
leaf, neck, nest

What are the patterns used to spell this sound?
ea, ee, fe, re

Fill in the blanks:
 I have a d r e a m.
re ad books.
 Part of a movie is called a sc e n e.
 Someone who steals is a th i e f.
 The side of the pond was filled with reeds.
 Doctors help people re ad.
 The re ad reel swims in the ocean.

Write one sentence with each of the following words:
 Leaf the boy leaves
 Feast there was a great feast
 Beach leave the beach!

I can choose a spelling by thinking of the options and deciding which looks right. I use my mental pictures to do this.

Phonemic Awareness

- PA is a key area for early literacy development
- Difficulty with PA may be a first clue to dyslexia
- SLPs have strong background in supporting PA
 - However, kids with dyslexia need support not only in developing PA, but in applying their PA skills to decoding and spelling
 - Schuele & Boudreau, 2008

- <http://www.readingrockets.org/reading-topics/phonemic-awareness>
 - Phonemic segmentation
- <https://vimeo.com/143617644>
- <https://vimeo.com/143616954>

Orthographic Knowledge

- Identify target spelling patterns based on assessment and acquisition research
- Select target words
- Sort
- Read
- Spell
- Connected text

Example: Long a spellings

- Select target spellings
- Sort cards into families based on spelling patterns
- Read the words out loud
- Practice spelling
- Apply in connected text
- Make entry into strategies journal
 - “Long a is usually spelled with two vowels”

Video Examples

- <http://www.readingrockets.org/atoz/1149/video>
 - Exploring the -ay sound (.48 - 3.17)
 - Classroom example





Practice together

- Using the cards I provide, practice the basic procedure for the initial introduction to long vowel sounds
- Questions or comments for the group?

Semantic Knowledge

- Support students in connecting meaning with spelling
- A relative strength in oral language can aid in this process
- Will interact with other linguistic underpinnings
- The key messages are:
 - Meaning influences word spellings
 - Different words may sound the same but be spelled differently
 - Development of robust mental orthographic images is critical

Semantic Knowledge

- Help students “glue” the meaning of the word to the correct spelling
 - First, teach allowable spelling patterns
 - Second, help students attach meaning to each spelling of a word
 - Third, help the student check themselves:
 - Does the spelling look “weird”? Help student cycle through the allowable spellings and choose the correct one.

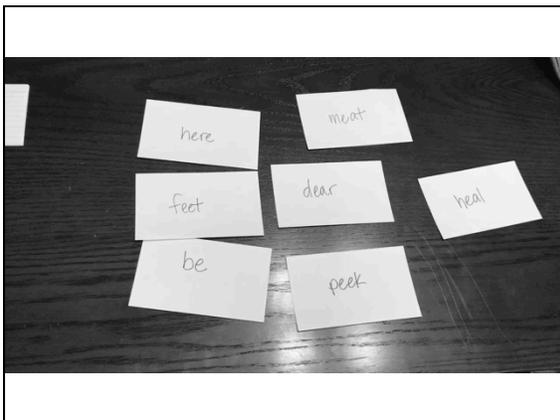
Semantic Knowledge

(Wasowicz et al, 2012)

BE	BEE
DEAR	DEER
MEET	MEAT
FEAT	FEET
PEEK	PEAK
HEAL	HEEL
HERE	HEAR

Procedure

1. Review homophones with student.
2. Place cards in two piles.
3. Turn over one card and direct student to find the homophone (you can give a meaning cue; e.g. the match for this word means “accomplishment”).
4. Have the student read both words and use them both in written or spoken sentences.
5. Review strategy and enter into journal.
 1. What are homophones?
 2. Why is their spelling important?
 3. How will you remember which spelling is correct?



- Practice

Morphological Knowledge

Apel & Werfel, 2014

- Ability to consciously consider and manipulate morphemes within words
- Spelling procedures that dictate combinations of morphemes in written language
- Supports ability to construct meaning during reading and to decode
- Spelling in English preserves the meaning of morphemes, sometimes at the expense of pronunciation
 - Jumped not jumpt
 - Health not helth
 - Shoes not shoos

Quick Review...

- Grammatical (inflectional) morphology
 - Grammatical endings that do not change the basic meaning or part of speech of base word
 - Verb tense, plurals, possessives etc.
- Derivational morphology
 - Affixes that can change the meaning and part of speech of the root word
 - Attend, attention, attentive, inattentive

- <http://www.readingrockets.org/atoz/1149/video>
 - Spelling Patterns

Spelling Plural Endings

Wasowicz et al 2012

- | | |
|----------|------------|
| • Bush | • Bushes |
| • Dog | • dogs |
| • Box | • Boxes |
| • Tomato | • Tomatoes |
| • House | • Houses |
| • Key | • Keys |
| • Dog | • Dogs |
| • Boy | • Boys |
| • Kid | • Kids |
| • Pot | • Pots |
| • sock | • Socks |

Procedure

1. Review relevant grammatical knowledge (e.g. suffixes can be used to change singular nouns to plurals)
2. Shuffle cards and present for sorting
3. Read the words aloud and use in sentence. Ask student to consider whether noun refers to one or more than one.
4. Choose a pair of singular and plural and ask student to use both in a sentence.
5. Ask student to reflect on how the spelling of the word indicates singular or plural. Enter a strategy into word journal.
6. Practice spelling and reading in single word and connected text.

Derivational Morphology

- | | |
|------------|---------------|
| • Play | • Playful |
| • Care | • Careful |
| • Help | • Helpful |
| • Rain | • Rainy |
| • Dirt | • Dirty |
| • Cheer | • Cheery |
| • Color | • Colorful |
| • Danger | • Dangerous |
| • Humor | • Humorous |
| • mountain | • mountainous |

Practice

1. Use the basic procedure already discussed, but....
2. Consider how you will explain/introduce the morphological structure.
How does the affix change the meaning?
How are the affixes spelled?
3. Remember to highlight the spelling-meaning connection throughout

To learn more...

- SPELL-Links/Learning by Design
– <http://www.learningbydesign.com/home.html>
– SPELLTALK
- Wolter, 2009
- Barber, 2013
- Brimo, 2013

- Questions?
- Thank you!
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