

June 16, 2007
Agenda

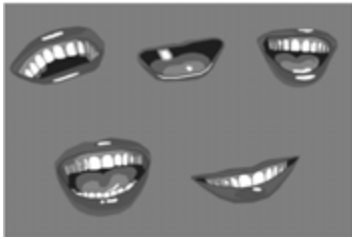
- Role of the SLP in Early Reading
- Administration and Interpretation of the TILLS
- Lunch
- English Learners and Early Reading
- Linking Assessment to Intervention

Role of SLP in Early Reading

Two Major Areas

- Oral language development
- Phonemic awareness

Oral Language In the
Classroom

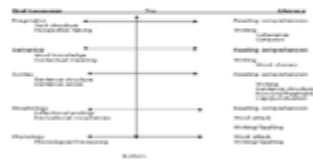


Language and Literacy A GOLDEN Opportunity: Good Oral Language Development

Language-Literacy Connection:

Literacy is a language-based skill

- Ultimate goal = to understand the text
- Listening and reading comprehension strongly correlated (Harris, 2000)
- Reading taps all aspects of language (Schuele, 2008)



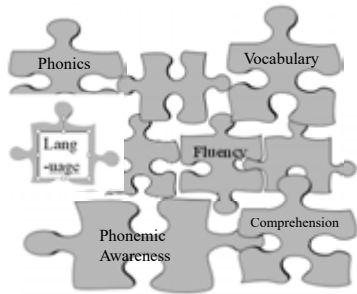
The Link Between Language Disabilities and Reading Disabilities

- Proficient reading requires integrated skills across decoding and comprehension that draw on basic language knowledge (phonetics, syntax, and phonology) (Schuele, 2008)
- 40% of preschool children with language impairments develop significant literacy learning difficulties (Kam & Nelson, 1990; Rescorla, 2000)
- Literacy learning difficulties persist even if language delays appear resolved by age 5 (Gathercole, 1998)
- Emergent literacy weaknesses apparent prior to formal reading instruction and persist into adolescence and adulthood (Schuele, 2008)
- Moderate to severe language difficulties in young children, particularly those affecting language comprehension, are predictive of long-term problems affecting learning, school achievement, and behavior (ASHA, 2013)
- Successful readers in first grade have a 20,000 word receptive vocabulary - poor readers have less than 5,000 words (Jenkins, 2000)

The Link Between Language, Poverty and Reading

- Children from low language resource backgrounds hear only the most commonly occurring words (Peters, 2011)
- By age 3, the child of a professional family has heard 45 million words spoken as opposed to the 13 million words heard by a child in poverty (Peters and Riley, 1995)
- Children in poverty hear 70% fewer encouragements than children from a professional family (Peters and Riley, 1995)
- Prior to kindergarten, a child in poverty averages a total of 25 home hours spent in reading experiences as opposed to high language resource background children who average 1,000 home hours (McArthur, 1997)
- Children from poverty who succeeded as readers experienced exposure to rich vocabulary, extended discourse, and negatively and linguistically stimulating home and school environments (Dickenson and Nelson, 1993)

The Essential Components of Reading



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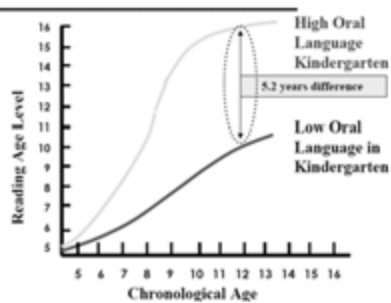
Oral Language at the Core



- "For children learning to read, comprehension can take advantage of skills they have been using in their oral language
- "Spoken language and reading have much in common. If the printed words can be efficiently recognized, comprehension of connected text depends heavily on the reader's oral language abilities, among them."

(Snow, Burns, & Griffin, 1998)

The Effects of Weaknesses in Oral Language on Reading Growth



Domains for Language

Semantics

- The meaning of words and combinations of words

Morphology

- Rules that govern how morphemes are used.

Syntax

- the rules that pertain to the ways in which words can be combined to form sentences in a language
- Understanding or Use of correct sentence structure

Pragmatics

- Understanding language in relation to social contexts
- Knowing What to Say, How to Say it and When to Say It

Phonology

- Study of the speech sound (i.e., phoneme) system of a language, including the rules for combining and using phonemes
- Ability to Identify and Distinguish phonemes

Language is the foundation for...

all curriculum objectives.

Lang Arts

- Retell familiar events & stories to include beginning, middle, end

Lang Arts

- Describe people, places, things, locations, & actions

Soc Studies

- Describe people, events, culture, maps

Soc Studies

- Describe work people do

Science

- Describe changes in size, weight, color, or movement

Oral language base for reading

- Proficiency in oral language provides children with a vital tool for thought
- Without fluent and structured oral language, children will find it very difficult to think (Jerome Bruner,1983).
- Oral language is often associated with vocabulary as the main component. However, in the broadest definition, oral language consists of phonology, grammar, morphology, vocabulary, discourse, pragmatics. And semantics (Fielding et al., 2007).

Syntactic Tasks

- Grammatically correct oral expression of phrases & sentences
- Comprehension of syntactic structures
- Knowledge & expression of grammatical analogies
- Given syntactically different sentences, recognition of same or different meanings
- Judgment of and ability to correct sentence grammar

Language Skills to Build

- Description
 - People
 - Place
 - Attributes
- Compare and Contrast
- Sequencing
- Retell
- Identification/Labeling

Building Descriptive Skills

Relationships and Descriptive Skills to Build:

- Descriptions of single objects
- Description of categories
- Objects related to topic
 - Things we see at school
- People related to topic
 - People that we see at school
- Related objects by categories
 - Types of Fruit
- Parts or objects related to topic by attributes
 - Name things that are long
- Similar objects
 - Things we can use to brush our hair

Describing Objects

- Start with a single object
- Ask the following questions:
 - What is the name of the object?
 - What do you do with it?
 - Who might use object?
 - Where might I find this object? Where go to buy or find?
 - What does it look like?
 - Define size, color, shape, texture, taste, etc.
 - What category does it go into?
 - Is it a fruit?
 - Is it a toy?
- Wrap up description by using a sentence with the descriptions, functions and attributes of the object.
This is an orange. It is round, orange in color, a piece of fruit and something that we eat.
- Start to introduce how it's different from another object in the category in the wrap up.
This is an orange. It is round, orange, a fruit, and something we eat. It is different from apple because of it's shape and taste.

Receptive Language/ Comprehension

What is it?

- Refers to the understanding of the implications and explicit meanings of words and sentences of spoken language

Impact on Academics

- following directions
- learning vocabulary,
- understanding instruction
- reading comprehension-
main ideas, details,
paraphrasing
- difficulty retaining concepts

Oral Expression Difficulty Characteristics

Difficulty with grammatical processes of inflection, marking categories like person, tense, and case(e.g. the "s" in *jumps* marks the third-person singular in the present tense), and derivation, the formation of new words from existing words (e.g., *acceptable* from *accept*)

Learning vocabulary

Difficulty formulating complete, semantically and grammatically correct sentences either spoken or written

Difficulty explaining word associations, antonyms/synonyms

Difficulty with retelling, making inferences, and predictions

Expressive Language (Oral Expression)

What is it?

•Oral expression pertains to the use of words and includes the ability to formulate and produce words and sentences with appropriate vocabulary, grammar, semantics, and application of conversational rules

Impact of Academics

- May limit the ability to
 - express ideas
 - explain thinking (critical in math)
 - retell stories
 - contrast and compare concepts or ideas

Explicit Oral Language Skills to Support Reading in ELA Standards

Description
People, place,
attributes

Retell
Summarize
Paraphrase

Compare and Contrast
Similarities &
Differences

Identification/Labeling
Attributes

Sequencing

Oral language Skills from ELA Standards

- Identify the main idea of a multiparagraph text as well as the focus of specific paragraphs within the text.
- Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- Describe the connection between a series of events, concepts, or steps in a procedure within a text.
- Determine the meaning of words and phrases as they are used in grade-level text including multiple-meaning words.
- Explain how graphic representations contribute to and clarify a text.

Oral Language Skills
from ELA Standards

- Describe how reasons support specific points the author makes in a text.
- Compare and contrast the most important points presented by two texts on the same topic.
- Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases.
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing from a range of strategies and tools.

Oral Language Skills from ELA Standards

- Recount stories and determine their central message, lesson, or moral.
- Describe how characters in a story respond to major events and challenges.
- Describe how words and phrases supply rhythm and meaning in a story, poem, or song.
- Acquire and use grade-appropriate conversational, general academic, and domain-specific words and phrases.

Oral language and reading comprehension-
oral language is the base for comprehension

Timothy Shanahan and Christopher Lonigan explore the connection between early oral language development and later reading comprehension success

<http://languagemagazine.com/5100-2/>

- The student has to read the word, but that is no guarantee the student understands it
- Student has to use the word correctly in oral language to demonstrate comprehension

Oral language and reading comprehension

- As children accomplish the ability to automatically and fluently read printed words, language comprehension begins to contribute more to individual differences in reading comprehension.
- Most children who score poorly on reading comprehension tests have difficulty decoding words and understanding language.
- Sentence structure is crucial to comprehension
- Sentence structure depends on oral language comprehension

Help with Sentence Meaning

Texts may be hard because of grammar or syntax:
Oral language precedes reading comprehension

- Firefighters must be able to respond quickly to many kinds of fires and other dangerous situations.
- Other kinds of fire trucks include ladder trucks, tanker trucks and rescue trucks.

Students have to know and explain that "fire" has more than one meaning. In one sentence the word "fire" means a person. In the other sentence "fire" means a truck.

Help with Sentence Meaning

Guide students orally to interpret complex sentences (clause and phrase analysis)

- After driving along the highway to collect the ingredients, she returned to the shop. She quickly made Val's sandwich. Val ripped it apart and ate it in a flash (*Students have to know and explain that "ripped" has more than one meaning*)
- They also build cocoons to store the air. Other spiders live on top of the water. They run across the water when they hunt (*Students have to know and explain how spiders can live on top of water and then run across the water*).

Building Descriptive Skills

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- People related to topic
 Example: People that we see at school
- Related objects by categories
 Example: Types of Fruit
- Parts or objects related to topic by attributes
 Example: Name things that are long
- Similar objects
 Example: Things we can use to brush our hair

Describing Objects

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Describing Objects

Wrap up description by using a sentence with the descriptions, functions and attributes of the object.

This is an orange. It is round, orange in color, a piece of fruit and something that we eat.

Start to introduce how it's different from another object in the category in the wrap up .

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Determining the Category

- Provide students with a list of 4-5 items.

- Orange, Banana, Apple, Kiwi, Cherries

Ask what category do these fit into?
"these are all _____"

Can give two choices for students who struggle. Are these objects furniture or fruit?

Increase complexity by making the associations broader or the categories more complex

Words: happiness, anger, sad, brave

These are all _____ (feelings).

Building "Reverse" Descriptive Skills

- What is it?

- Explicitly teach students questions

- What color is it?
- What is it made of?
- Where do you find it?
- What shape is it?
- Function
- What size it?
- What category does it belong to?

Compare and Contrast

Defined: Ability to understand and talk about similarities and differences

Connection to Reading:

Making comparisons and thinking about relationships within the reading and/or between the reading and the student's life can deepen understanding

Prerequisites: Descriptive vocabulary to describe attributes, sizes and temporal concepts. The ability to describe an object by attributes and categories. Knowledge of the vocabulary same/different

Where Do I Start?

Use words and drawings as the foundation for sentence elaboration, descriptions, sharing and extending to writing

The complexity of Idioms-
Based in Oral Language

- Some common idioms and idiomatic expressions are:
- It's *raining cats and dogs* today. (Meaning of idiom: It's raining heavily)
- Maria felt like a *fish out of water* on the first day of school. (Meaning of idiom: Maria felt different, as if she didn't belong)
- He didn't have his coat on, and *he caught a cold*. (Meaning of idiom: He got sick)
- Last night my mom *lost her temper*. (Meaning of idiom: She was very angry)
- I think that you will *get a kick out of* the movie. (Meaning of idiom: You will enjoy watching the movie)
- I *let the cat out of the bag* and told her that I was moving. (Meaning of idiom: I told the secret)

Sequencing—Oral Base

Defined: Ability to put events into order. Higher order sequencing is the ability to put retell events in order.

Connection to Reading:

The ability to sequence events is crucial in comprehension of stories and retell for writing purposes later

Prerequisites: Descriptive vocabulary to describe attributes, sizes, and temporal concepts. The ability to describe an object by attributes and categories. Short term memory and direction following. Vocabulary terms such as first, second, third

Where do I start?

Use of hands on activities familiar to students (i.e., making a sandwich, washing hands, lining up for lunch) then proceed to picture sorts to sequence events

Building Recall Skills To impact
Oral Retell Skills

- **Start** with the student stating what happened FIRST
- **Add:** What happened Last?
- **Then:** Beginning -Middle -End
- **Then:** 3-4 events/details

Building Recall Skills To Impact Oral Retell Skills

Purpose:

- Retell is an essential skill to demonstrate comprehension

Prerequisite language skills:

- Sequencing, age appropriate vocabulary, labels, attributes

Language skills that may impact success:

- Use of verbs, short term memory, labeling, descriptions, answering one step questions

What the Research Says About PA

- The ability to hear and manipulate phonemes plays a causal role in the acquisition of beginning reading skills (Smith, Simmons, & Kame'enui, 1998).
- There is considerable evidence that the primary difference between good and poor readers lies in the good reader's phonological processing ability.
- The effects of training phonological awareness and learning to read are mutually supportive.



What the Research Says About Phonological Awareness (PA)

- The best early predictor of reading difficulty in kindergarten or first grade is the inability to segment words and syllables into constituent sound units (phonemic awareness) (Lyon, 1995).



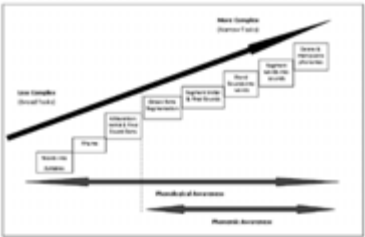
Diane Lewis, SLP and Linda Mercer, SLP, SlideShare

Phonological Processing Umbrella



Speech	Phonological Awareness	Phonological Memory
<ul style="list-style-type: none">• Reception (listening)• Production (speaking)	<ul style="list-style-type: none">• Word• Syllable• Onset-rime• Phoneme	<ul style="list-style-type: none">• Phonological Working Memory• Retrieval• Naming

The Continuum of Phonological Awareness



Why Phonemic Awareness is Important



- PA teaches students to attend to sounds. It primes the connection of sound to print.
- PA gives students a way to approach reading new words.
- PA helps students understand the alphabetic principle, that letters in words are systematically represented by sounds.

Phonemic Awareness

- SLPs don't get tagged for all phonemic awareness work in general education
- Primary role of SLP in phonemic awareness is to model and demonstrate for teachers

What Is Phonemic Awareness?

- Phonemic awareness is the most sophisticated level of phonological awareness
- It involves the ability to **auditorally** notice that the spoken word contains a 'sub-level' of smaller sounds or 'phonemes'
- The smallest unit of sound in spoken language is a *phoneme*

What's Involved in Phonemic Awareness?

- Phonemic Awareness involves the ability to :
 - **Segment**, or separate, words into sounds
 - **Blend**, or put those sounds together to make a word
 - **Manipulate** sounds, or change sounds within words to make new words

Why Phonemic Awareness is Difficult

- There are 26 letters in the English language.
- Though the number of phonemes vary across sources, there are approximately 40 phonemes.
- Sounds are represented in 250 different spellings (e.g., /f/ as in ph, f, gh, ff).
- Phonemes are coarticulated, thus logical “sound units” are not readily apparent and must be taught.
- No “white spaces” between letters, syllables, or words.

Research Examining Educators' Phonemic Awareness Skills

- ✓ **Brady, Gillis, Smith, Lavelette, Lisa-Bronstein, Lowe, North, Russo, & Wilder (2009):** First-grade teachers had weak phonological awareness and phonics knowledge and skills.
- ✓ **Cheesman, McGuire, Shantaweller, & Coyne (2008):** EC, Spec Ed and elementary teachers do not have the recommended knowledge or skills sufficient to provide effective PA instruction.
- ✓ **Spencer, Schuele, Guillot, & Lee (2008):** SLPs had superior performance on the measure of phonemic awareness compared to other educators.
- ✓ **Box, Mather, Dickson, Podhajski, & Chard (2001):** Pre-service and in-service educators' demonstrated limited knowledge of PA or terminology related to language structures and phonics. They also found that these teachers perceived themselves as only somewhat prepared to teach early reading to struggling readers.
- ✓ **Muets & Fournier (2003):** Found a significant relationship between teachers' knowledge of language and reading, their overall instructional competence and student achievement.

Why Focus on Phonemic Awareness?

Longitudinal studies of reading acquisition have demonstrated that...

- the acquisition of phonemic awareness is highly predictive of reading success.
- At the kindergarten level, phonemic awareness abilities appear to be the best single predictor of successful reading acquisition.

Without direct phonemic awareness instructional support....

- 22% of middle-class first graders and substantially more children from less literacy-rich backgrounds will evidence serious difficulty in learning to read and write.

Julius, 2009

Final Facts & Statistics

- Research indicates that without direct instructional support, phonemic awareness eludes roughly 25% of middle class 1st graders
 - Impact is substantially greater for children from less literacy-rich backgrounds
- Evidenced in serious difficulty learning to read, write, and spell

• Diane Lewis, SLP and Linda Mercer, SLP, Stoddard

First Things First

- Before children can make sense of the alphabetic principle, they must first understand that those sounds that are paired up with letters are “one and the same” as the sounds of speech ⁽⁴⁾
- Children must therefore have solid phonemic awareness skills before undertaking phonics instruction
- We must begin with the *sounds* of language

More Good News

- Research indicates that critical levels of phonological awareness can be developed through carefully planned instruction, and this development has a significant influence on children's reading and spelling achievement

• Diane Lewis, SLP and Linda Mercer, SLP, Stoddard

1. LISTENING SKILLS

- Focus the child's attention on sounds of interest (a pre-phonemic awareness skill)
 - Tapes of birds Cars
 - Wind Breathing
 - Footsteps Door closing
 - Sink running Doorbell
 - Silverware being placed in a drawer

For older students also try listening for specific musical instruments in classical music pieces; try to recognize familiar voices on a tape

2. WORDS IN SENTENCES

- NOTE: Segmenting begins at the sentence level, with the eventual goal being segmenting at the phoneme level
- Introduce the idea that sentences are made up of strings of words and that a sentence is like a short story. It tells something and has to name who or what it is telling about

Words in Sentences

- Recognize complete sentences
 - Thumbs UP or DOWN:
 - "has blue eyes"; "the children"
- Count by Clapping
 - Clap for each word in the sentence
 - Begin with one syllable words; later introduce two syllable words, etc.
 - Begin with short sentences and gradually lengthen

Words in Sentences

- Represent the number of words in sentences by placing colored squares/ blocks/or counting chips on the table
 - Repeat the sentence while touching each counter
 - Great for language, sequencing, and memory
- Also a useful method in later grades for sentence dictation/spelling; use finger-tapping method or drawing lines on paper

3. AWARENESS OF SYLLABLES

- Introduce the concept that words are made up of parts called 'syllables'
- Start with compound words
 - **Segment** into single syllables by clapping or using colored squares/blocks to show the two components
 - snowman, airport, sailboat, cattail

Awareness of Syllables

- **Blend** two one-syllable words to form a compound word
 - snow + man flash + light
- **Syllable Deletion** with compound words
 - Say *goldfish*. Now say it again but don't say *fish*
 - Say *mailbox*. Now say it again but don't say *mail*

Awareness of Syllables

- Introduce children to the nature of syllables by modeling
 - Begin by clapping and counting the number of syllables in their names
 - Play 'Clap It' or 'Whisper It'
 - Use colored blocks to represent the number of syllables in everyone's names; compare the number of syllables

4. INITIAL AND FINAL SOUNDS

- NOTE: Now working at the phoneme level
- First, lead children to discover that words contain phonemes

- Second, help them begin to learn about the phonemes' separate identities so they can recognize them & distinguish them from one another

Initial and Final Sounds

- The identities and distinguishing characteristics of the phonemes are easier to feel in one's mouth than to hear in one's ear
 - Direct children's attention to the articulation of phonemes *and* how they sound

Initial and Final Sounds

- Phonemes are easier to recognize in the initial positions of words
 - Move from beginning sound to final sound; sounds in the middle of words comes last as they are hardest
- Be sure to use “pure” sounds when modeling
 - /b/ the sound stops on your lips; be careful not to add “uh” as an extra sound

5. SEGMENTING WORDS

- Segmenting words into phonemes
 - Use colored squares to represent each sound in the word
 - What sounds do you hear in the word “hot”
- Counting phonemes in words
 - How many sounds do you hear in the word “man”; “hat”; “cake”; “bike”

6. BLENDING PHONEMES INTO WORDS

- What word would you have if you put these sounds together
 - /s/ /a/ /t/
- Begin with initial sound plus end of word
 - /c/ at /p/ en
- Move to final phoneme blending
 - coa /t/ hou /se/
- Increase complexity by blending individual sounds

7. DELETION OF PHONEMES

- Say "cat"
- Say "cat" again without the /k/
- What sound do you hear in "meat" that is missing in "eat"

CONCLUSION

- Phonemic awareness is one of the necessary building blocks to reading and spelling success
- The strategies we discussed also help with general listening skills and vocabulary development
- Continue the wonderful work you do and have fun with language!

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Facts & Statistics

- The ability to decode single words accurately and fluently is dependent upon the ability to segment words and syllables into phonemes.
- Deficits in phonological and phonemic awareness reflect the core deficit in reading disabilities

Phonics

- The study of the relationship between the speech sounds (phonemes) and the letters that represent them.
- Sometimes referred to as decoding.
- The study of phonics provides for the development of the skill in decoding of visually unfamiliar words.

Decoding

- The process of converting written language into spoken sounds.

Encoding

- The reverse.
- The process of converting oral language into written language.

Cooper, J. D. & Kiger, N. (2003). *Literacy: Helping Children Construct Meaning*, 5th ed.

IMPORTANCE OF PHONICS

- 1. Learning to read involves everyday encounters with words the child has never before seen in print.**
- 2. Phonemic analysis provides the most important single clue to the identity of unknown words in print.**

Torgesen, J.K. Teaching all students to read: Working together as a school level system. Invited presentation to annual meetings of the American Speech and Hearing Association. Miami, November, 2006.

Phonics

•A method of teaching reading based on the sounds of letters, groups of letters, and syllables.

•A phonics approach to reading emphasizes spelling patterns, for example:

•care, bare, fare

•fair, hair, chair

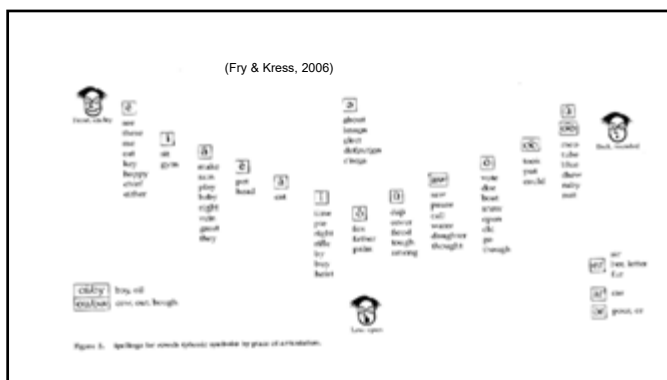
•Some phonics symbols are the same as IPA, and some are different (especially vowels).

•Jaskolski / Moyle, ASHA Convention 2013

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“ ... a weakness of some SLPs:
They don’t pay enough attention to the
transition between phonemic awareness and
phonics.”

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Be the Bridge

Connect speech to
print



- Use letters in your lessons for sound blending, segmenting, and manipulation
- Identify letters that represent sounds

Short Vowel Sounds	Intermediate Vowel Sounds	Long Vowel Sounds
<p>Short /i/ in <i>bit</i> Short /e/ in <i>bed</i> Short /a/ in <i>bat</i> Short /o/ in <i>boat</i> Short /u/ in <i>but</i> Short /æ/ in <i>bat</i> Short /ɒ/ in <i>boat</i> Short /ʊ/ in <i>but</i></p>	<p>Short /e/ in <i>bed</i> Short /a/ in <i>bat</i> Short /o/ in <i>boat</i> Short /u/ in <i>but</i> Short /æ/ in <i>bat</i> Short /ɒ/ in <i>boat</i> Short /ʊ/ in <i>but</i></p>	<p>Long /i:/ in <i>bit</i> Long /e:/ in <i>bed</i> Long /a:/ in <i>bat</i> Long /o:/ in <i>boat</i> Long /u:/ in <i>but</i> Long /æ:/ in <i>bat</i> Long /ɒ:/ in <i>boat</i> Long /ʊ:/ in <i>but</i></p>
Long Vowel Sounds	Short Vowel Sounds	Short Vowel Sounds
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Moyle, ASHA Convention 2011

International Phonetic
Alphabet (IPA)

- A system of phonetic symbols that anyone can learn to use and that can be used to represent the sounds of any language
- A one-to-one correspondence between sounds and symbols
 - For example, the words read, need, and Reid would be transcribed the same way: /ri:d/

Jacobson & Moyle, ASHA Convention 2011

IPA Chart

THE INTERNATIONAL PHONETIC ALPHABET (revised in 2005)

Category	Symbol	Approximate English Sound
Stops	p, b, t, d, k, g	p, b, t, d, k, g
Fricatives	f, v, s, z, ʃ, ʒ, ʰ, ʱ, ɦ	f, v, s, z, sh, zh, h, ʔ, ʕ
Nasals	m, n, ŋ	m, n, ng
Liquids	l, r, ɹ, ʎ	l, r, ɹ, ʎ
Glides	w, y, ɥ	w, y, ɥ

IPA Chart showing various phonetic symbols and their approximate English sounds.

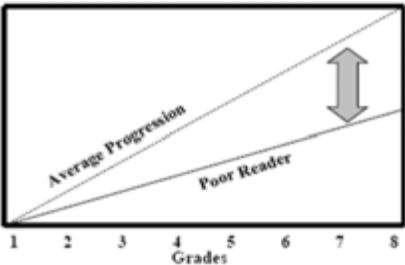
“Matthew Effects”

Stanovich (1986)

Children who learn to read easily, enjoy reading, read more, are exposed to more complex and varied vocabulary, exhibit greater comprehension.

Children who struggle with reading, become frustrated with reading, read less, encounter fewer new words, learn less vocabulary, and understand less of what they read.

Hypothetical “Matthew Effects”



What we know

- Good language comprehension & good word reading skills are required for effective reading comprehension
- Most poor readers experienced early & continuing difficulties in accurately identifying printed words
- Poor readers are slower at developing "sight words"
- Ultimately, it is this difficulty in rapid word recognition that limits comprehension in older poor readers
- *Torgesen, 1998*

Children with a history of oral language impairment are 4-5 times more likely to present with reading difficulties than the general population (their peers).

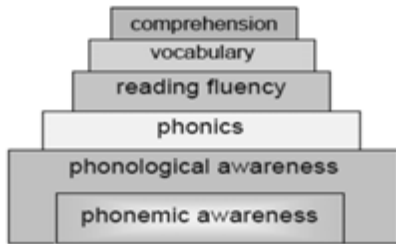
(Catts et al., 2001)

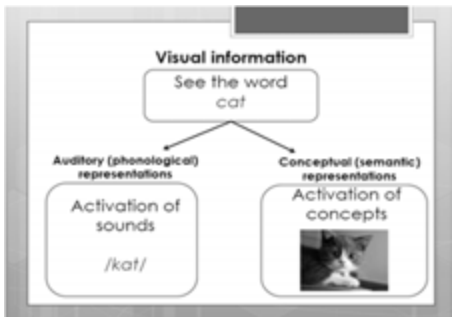
Research - Post N.R.P.

- Foorman et al. (2003) 4872 K students
- Phonemic awareness activities (not syllable and word level) were keys to reading instruction in Kindergarten
- Helping students grasp sound/symbol relationship
- Instruction that combined PA and Phonics was more effective than instruction of PA alone.

Building Blocks of Successful Reading

- Penny Castagnozzi





Relationship between phonological awareness and reading

- In reading, the "sounds of spoken language [are] mapped onto letters or syllables (graphemes)."
- "Beginning readers must decode print to access the [sound] and meaning of words. They already know the meanings of words in spoken language, but they have to learn to relate [the sounds of spoken] language to print through explicit phonological awareness."

(Gabriell 2009)

Phonological awareness impairments in dyslexia

- "Children with dyslexia frequently exhibit poor phonological awareness. **Initially for spoken words and subsequently for printed words.**"
- "These children have difficulty performing oral language tasks that depend on phonological awareness," such as:
 - Deciding which words start with the same sound
 - Segmenting words into parts
 - Blending sounds to create a word
 - Deleting a sound within a word, saying what's left

(Gabriell 2009)

Speech problems that may signal poor phonological awareness

- Persistence of normal developmental speech errors beyond the ages at which they would normally disappear. For example:
 - Voicing errors (big/pig) – gone by age 3
 - Final consonant deletion (coe/comb) – gone by age 3;3
 - Fronting (lar/car) – gone by age 3;6
 - Weak syllable deletion (fata/potato) – gone by age 4
 - Cluster reduction (poonh/poon) – gone by age 4
 - Gliding (wike/like) – gone by age 5

(Bowen, 2012)

Speech problems that may signal poor phonological awareness

- Presence of unusual speech errors (not seen in typical speech development):
 - Initial consonant deletion (og for dog)
 - Backing (moving front sounds like /t/ and /d/ to the back of the mouth like /k/ and /g/)
 - Glottal replacement (ha er for hammer)
 - Fricatives replacing stops (sop for top)
 - Stopping of glides (dam for yam)
 - Vowel error patterns

(Paul, 2007)

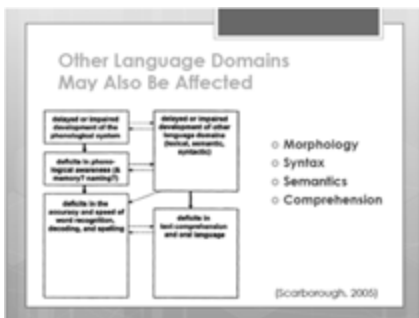
Additional symptoms of poor phonological awareness

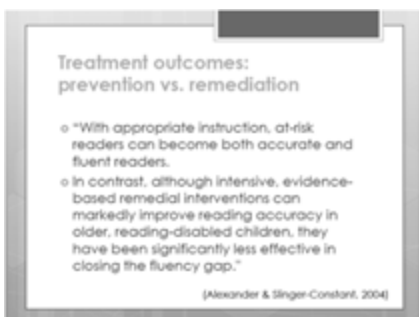
- Errors in sequencing sounds in spoken language (animal / animal)
- Trouble remembering sound-symbol relationships (e.g., the sound /b/ is made with the letters b and l)
- Overreliance on whole-word and context cues when reading
- Difficulty sounding out unfamiliar words
- Slow reading rate
- Difficulty sequencing sounds in words when spelling
- Confusions between similar-sounding sounds (e.g., the short vowel sounds /e/ and /i/)

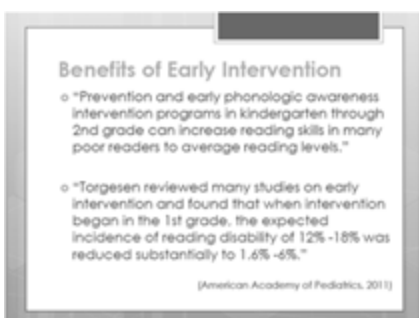
(Mather & Wendling, 2012)

Quick word for SLPs on treating phonologically-based speech sound disorders

- Don't use traditional articulation therapy
- Use a phonological approach to intervention, such as:
 - Cycles Therapy
 - Metaphon Therapy
 - Minimal Pair Therapy
 - Phoneme Awareness Therapy
- You are working on correcting the child's spoken language system, not their articulation skills







Risks of Waiting

- "Children identified as reading disabled after 2nd grade rarely catch up to their peers."
- "Results of longitudinal studies have shown that when intervention is delayed until 3rd grade or 9 years of age (the average age at which these children receive services), approximately 74% of these children will continue to have difficulties learning to read through high school."

(American Academy of Pediatrics, 2011)

Roles and Responsibilities of Speech-Language Pathologists With Respect to Reading and Writing in Children and Adolescents (2001)

- It is the position of the American Speech-Language-Hearing Association (ASHA) that speech-language pathologists (SLPs) play a critical and direct role in the development of literacy for children and adolescents with communication disorders.

- The connections between spoken and written language are well established:
- Spoken language provides the foundation for the development of reading and writing
- Spoken and written language have a reciprocal relationship, such that each builds on the other to result in general language and literacy competence

o SLPs' knowledge of normal and disordered language acquisition, and their clinical experience in developing individualized programs for children and adolescents, prepare them to assume a variety of roles related to the development of reading and writing.

SLPs are Language Specialists

- SLPs are trained in acquisition, development and integration of language systems
- The SLP has expertise in the language demands of the curriculum, for example:
 - vocabulary
 - High level language (metaphors, analogies, figurative language)
 - Paraphrasing
 - Grammar
 - Comprehension/processing during language of instruction

Appropriate roles and responsibilities for SLPs include, but are not limited to:

- o Preventing written language problems by fostering language acquisition and emergent literacy
- o Identifying children at risk for reading and writing problems
- o Assessing reading and writing
- o Providing intervention and documenting outcomes for reading and writing
- o Assuming other roles, such as providing assistance to general education teachers, parents, and students; advocating for effective literacy practices; and advancing the knowledge base

SLP role: early identification

- Catts et al. recommend:
 - "All children who enter kindergarten **with known histories** of speech and/or language problems should be screened"
 - "Their history of speech-language problems places [these students] at risk for reading difficulties that are 4 to 5 times greater than those of children from the general population."

Catts et al. (2001)

SLP role: early identification

- For children who enter kindergarten **without known histories** of speech and/or language problems, teachers should "make liberal referrals to the SLP for screening" if characteristics such as the following are observed:
 - Child appears to be behind in their familiarity with books
 - Teacher has concerns about speech and/or oral language development
 - Child has difficulty with phonological awareness tasks that are part of the kindergarten curriculum

SLP role: teaming with teacher

- "Classroom reading activity should be intensified by increasing the time of instruction and/or reducing teacher-to-student ratios"
- SLP works with classroom teacher in planning and conducting intensified instruction on phonological awareness and sound-letter correspondences

Catts et al. (2001)

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