Sounds and Letters in Early Literacy: Phonological Awareness and Print Knowledge

Lucy Hart Paulson, EdD, CCC-SLP
The University of Montana
Definitions

- **Early literacy** learning is defined as the time period from birth to six years of age (Robyak, Masiello, Trivette, Roper & Dunst, 2007).

- **Early reading and writing** occur in kindergarten into the early elementary grades.

- **Early Childhood** is the period from birth through age 8.
Agenda

Phonological Awareness Development
- Rhyming,
- Blending
- Segmenting

Print Knowledge
- Print Awareness
- Alphabet Knowledge
- Being a Writer
Predicting Later Reading Development

The **best** **TWO** predictors of reading achievement from early kindergarten to 2\textsuperscript{nd} grade are:

- ✔ Phonemic awareness (sound isolation)
- ✔ Letter name knowledge

(National Reading Panel, 2000; Whitehurst & Lonigan, 2002.)
Phonological Awareness

the conscious manipulation of sounds in spoken language, involving awareness of words, syllables, and sound units of speech

= /base/ /ball/
Phonemic Awareness (also Phoneme Awareness)

the conscious awareness that words are made up of sound segments in our speech

\[ /b/ /oo//k/ \]
Phonological Awareness Research Highlights

- PA is uniquely associated with word reading skills in older preschoolers (Anthony, Williams, McDonald, & Francis, 2007).
- Phonological awareness is comprised of two dimensions (Anthony, Francis, Driscoll, Phillips, & Burgess, 2003):
  - Linguistic: as children get older they are able to manipulate progressively smaller units of word structure
  - Cognitive: skills such as working memory, matching skills, understanding of oddity
  Cognitive abilities seem to parallel linguistic development, but the exact progression remains to be specified.
- Analysis tasks (i.e., deletion, counting, sound substitution) have the strongest correlation for literacy development (Shanahan & Lonigan, 2010).
Phonological Awareness

• Rhyming
• Alliteration
• Blending
• Segmenting
Early Literacy Checklist
(LETRS for Early Childhood Educators, Paulson & Moats, 2010)

Rhyme
Imitates rhythmic patterns in songs, rhymes, and fingerplays
Fills in missing words to known songs, rhymes, and fingerplays
Identifies words that rhyme
Produces a word that rhymes with a given word
Produces a string of three words that rhyme

Blending
Blends words from syllables (e.g., cow–boy)
Blends the beginning sound to the rest of a word (e.g., f–ish)
Blends words with three sounds (e.g., s–u–n)

Segmenting
Segments words into syllables
Identifies the number of syllables in words
Identifies words that begin with the same sound
Segments the beginning sound from the rest of a word (e.g., s–un)
Segments sounds in words with three sounds (e.g., h–a–t)
Phonological Awareness Skill Development

Rhyming
• Produce rhymes, fingerplays, and songs 2 - 3 years
• Match words that rhyme 3 - 5 years
• Produce words that rhyme 5 - 6 years

Blending
• Combine syllables to produce words 3 - 4 years
• Combine sounds to produce words 4 - 5 years

Segmentation
• Identify syllables in words 3 - 4 years
• Identify sounds in words 5 - 6 years

Manipulation
• Change words by deleting, adding, and switching sounds 6 - 7 years and up
Rhyming

• Rhyme sensitivity emerges with speech sound development (Rvachew, 2006).
• Cognitive abilities need to be considered when measuring rhyming skills.
• Rhyme matching tasks, rather than production tasks, appear to be a better measure of phonological abilities and control for other cognitive skills such as memory (Phillips et al., 2008).
Rhyme Matching
Rhyme Oddity
After reading the book, have the children identify what the “Hungry Thing” wants to eat. Play a guessing game using pictures of food. Change the initial sound of the word and have the children guess the food item. Then have the children create rhyming words for their food pictures.
There’s a Wocket in My Pocket by Dr. Seuss

After reading this book, have the children invent their own character and draw a picture of the character on a rhyming household object using this sentence frame:

There’s a _________
on my ________.

There’s a Zomething
on My Something.

There’s a ____________
on my ____________.
Linguistic Hierarchy of Phonological Awareness

The word parts of oral language include:

Words: caterpillar

Syllables: ca-ter-pil-lar

Onset/Rime: c-at tr-ain

Phonemes: /k/ /ă/ /t/
Alliteration Matching
Alliteration Categorization
Hickity Pickity Bumble Bee

Sing the song using a bumble bee puppet: *Hickity Pickity Bumble Bee, please say your name for me.* Tap your knees or clap your hands for each syllable in the person’s name.  

Ja-cob  Ti-ffa-ny  Scott  Sa-man-tha

Who’s Here? Bouncing Speech

As you introduce yourself, please “bounce” on the beginnings sound of your name. For example, say, “I am J – J – J – Jenna,” or “I am M – M – M – Mike.”
Gather small objects to be put into a surprise bag. Reach into the bag and choose an object keeping it hidden. Segment the name of the object into syllables or sounds and have the children blend the word for the object. Then have them segment the word.
Picture Puzzles

Cut pictures into pieces that match the number of syllables, or the number of sounds, in the words. Say the name of the picture in a segmented manner and have the children guess it. They can then put the pieces of the picture together to complete the puzzle.

- Rainbow: "rain-bow"
- Dinosaur: "Din-o-saur"
- Ambulance: "am-bu-lance"
- Fish: "f-i-sh"
- Pig: "p-i-g"
- Cat: "c-a-t"
Which Word Weighs More?

Use a balance scale, counters, and a set of pictures to sort by syllables (two to five syllables) or by sounds (two to four sounds).

Have the children pick two pictures from the same set, count either the syllables or sounds, and determine “which word weighs more” by placing the appropriate number of counters on the scale.
Kindergarten Common Core Standards for Phonological Awareness Skills

• Recognize/produce rhyming words
• Count, pronounce, blend, segment syllables
• Blend/segment onset/rime units of single syllable words
• Isolate and pronounce I/M/F sounds in CVC words
• Add or substitute individual sounds in single syllable words to make new ones
Print Knowledge

• Concepts of print
  – Book and print awareness

• Alphabet knowledge leading to the alphabetic principle

• Writing process
Early Literacy Checklist
(LETRS for Early Childhood Educators, Paulson & Moats, 2010)

**Print Awareness**
- Holds book right-side-up and turns one page at a time
- Identifies the pictures and words on a page
- Recognizes symbols and print seen in the environment
- Follows print using left-to-right sequencing
- Points to words using 1:1 word correspondence
- Recognizes own written name

**Alphabet Knowledge**
- Sings the “Alphabet Song”
- Identifies uppercase letters
- Identifies lowercase letters
- Identifies the sounds of letters
- Produces the sounds of letters

**Writing Development**
- Writes using scribble-like markings
- Writes using individual letter-like characters or mock letters
- Writes using recognizable, random letter strings
- Writes using semiphonetic spellings
- Writes using phonetic spellings
**Concepts of Print**

**Research Findings**

- These skills only have a moderate level of predictive validity (NELP, 2009)

- There is a wide range of skills that are described as concepts of print with a high level of variability and little developmental data.
Print Awareness Skills

• Book awareness
• Identifying print and pictures
• Symbol recognition
• Left-to-right sweeping
• 1:1 word correspondence
Magic Mirror

Have the children create a “magic mirror” and then use it to find words in the environment. They can write the words on pieces of paper and then make a word book.

Younger children may use their mirror to find the target concept that is being taught, such as colors, numbers, letters, animals, etc.
• **Alphabet knowledge** is the idea that spoken words are represented by written symbols. It is the underpinning of alphabetic understanding.

• **Alphabetic principle** is the understanding that there is a systematic relationship between letters and speech sounds.
Teaching Letter Names and Sounds

• Letter of the week instruction is based on tradition (Justice, 2006).
  – It takes 26 weeks for to cover the alphabet.
  – Some letters are easier to learn than others.
  – Some children already know some letters.
  – Repetition and practice are required for learning.

• Research-based method:

  Enhanced Alphabet Knowledge (EAK) Instruction
  (Jones & Rutzel, 2012)
Enhanced Alphabet Knowledge (EAK) Instruction

Explicit lesson format includes teacher modeling and guided practice for:

1. Identifying upper and lower case letter name and sound
2. Recognizing the letter in text
3. Producing the letter form

(Jones, Clark & Reutzel, 2012)
Children’s ability to learn letter-sound correspondences appears directly related to their knowledge of letter names, which serves perhaps as their entry point into understanding the alphabetic principle.

Children begin the task of mapping English sounds onto written letters by first learning letter names.

Evidence for this can be found in the invented spellings of young children, which often reflects use of a letter-name strategy (e.g., r for are, yt for what, etc.). (Bailet, Repper, Piasta & Murphy, 2009).
Letter Name and Sound Knowledge

• Phonological skills may be the catalyst for letter name knowledge (i.e., being able to segment the sounds in letter names “b” into /b/ /i/) (Piasta & Wagner, 2010).

• Letter name knowledge helps children develop letter sound knowledge (Mann & Foy, 2006).
  • Letter sounds with regular CV phonological structure (e.g., b, c, d, g, k, p, t, v, z) were learned more readily than letters with VC structure (e.g., f, l, m, n, s, x) or inconsistent structure (e.g., a, e, i, o, u, h, j, q, r, w, y )

• Letter sound recognition tasks were easier than recall tasks, which were easier than production tasks (Dodd & Carr, 2003).
ABC “EYE Chart

Make a chart of the alphabet letters that follows the pattern of the ABC song. Use it as a song card or in the housekeeping center as an “eye” chart.

A B C D  a b c d
E F G  e f g
H I J K  h i j k
L M N O P  l m n o p
Q R S  q r s
T U V  t u v
W X  w x
Y Z  y z
Letter Shape Pieces

• Cut these shapes out of sturdy material (foam, thin wood, or cardboard).
• Use these shapes to create letters of the alphabet.
• One set allows you to build uppercase and lowercase letters.
Being a Writer

Writing is a complex process that requires the integration of a number of skills:

- understanding print
- developing motor skills
- generating ideas

Skills to be continuously taught and supported:

- pencil grip
- letter formation
- letter-sound correspondences
- conventions of print
Print Developmental Sequences

1. Pre-conventional
   - Scribble
   - Mock Letters
   - Random Letter Strings

2. Semi-phonetic

3. Phonetic

4. Transitional
   Please pass the peas.

5. Conventional
   Please pass the peas.
Writing Instruction (Puranik & Lonigan, 2011)

• Teach writing sequentially.
• Young children should be encouraged to scribble and pretend to write.
• Name writing is different than writing.
• Scaffold instruction using prompts, cues, modeling and feedback.
Assessing children’s writing provides useful indicators of their level of print development and their understanding of the sound structure of language.
Common Core State Standards for Kindergarten Print Knowledge Skills

Foundational Skills
- Follow words left to right, top-bottom, page to page
- Recognize spoken words represent written words with specific letter sequence
- Uses spaces between words
- Name all upper and lower case letters
Common Core State Standards for Kindergarten Print Knowledge Skills

Writing Standards
- Draw dictate and write: an opinion, information about a topic, and single to several events and a reaction
- Add details to strengthen writing with support
- Explore digital tools to produce and publish writing
- Participate in shared research and writing projects
- Recall info from experiences or gather info from provided sources to answer a question
Contact Information

• Lucy Hart Paulson, Ed.D, CCC-SLP
  Communicative Sciences and Disorders
  The University of Montana
  32 Campus Drive
  Missoula, MT 59812
  lucy.hartpaulson@mso.umt.edu