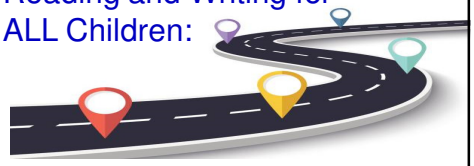
Readying the Road to Reading and Writing for ALL Children:



Important Foundations for Literacy Learning

Lucy Hart Paulson, EdD, CCC-SLP

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Topics:

- Definition considerations
- Early indicators of later literacy learning
- Early literacy foundations
  - Effective and engaging practices

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Developmental Time Frames

- **Early literacy** learning is the time period from birth to six years of age.
- **Early reading and writing** occur in kindergarten into the early elementary grades.
- **Reading to learn** is when basic reading and writing competency is developed in grade 3 and beyond.

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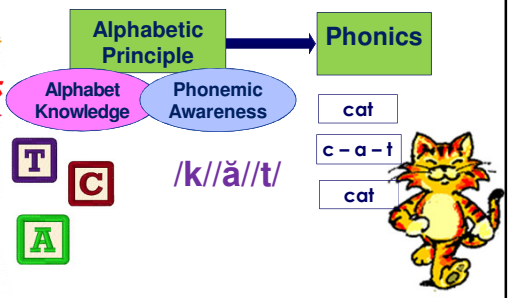
Transition from Early Literacy to Early Reading and Writing



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Timeline of Literacy Development

Early literacy **Early reading/writing** **Reading to learn**

Early literacy	Early reading/writing		Reading to learn
- Sound and language processing - Visual processing	- Phonological processing - Letter recognition writing	- Letter/sound mapping - Reading/ writing simple words - Reading connected text	- Reading complex text - Writing composi-tions

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Developmental Dyslexia

- Impacts 10-12% of children
- Neurobiological specific learning disability
  - Difficulty with accurate and/or fluent word recognition
  - Poor spelling and decoding abilities
- Cannot be explained by poor vision or hearing, lack of motivation, or educational opportunities

(International Dyslexia Association, 2002)

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Dyslexia Paradox (Gaab, 2018)

- Dyslexia is generally diagnosed after the most effective time for intervention has passed.

Window for prevention and most effective intervention	Typical window for diagnosis
"Support Model"	"Failure Model"

Early literacy Early reading/writing Reading to learn

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Impact of the Dyslexia Paradox

- Multiple intervention studies have reported larger effect sizes for kindergarten and first graders (with many of these children reaching average reading performance levels) than with children in 2nd and 3rd grades with.

(e.g., Torgesen, 2004, Wanzek & Vaughn, 2007)

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Genetic Predictors

Dyslexia occurs in:

- up to 68% of identical twins;
- up to 40–60% of individuals who have a first-degree relative with dyslexia.

(Grigorenko; 2004; Finucci & Childs, 1983; Volger et al., 1985)

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General Cognitive Abilities

- Historically, dyslexia has been diagnosed based on a reading achievement and IQ discrepancy model.
- There is little empirical support that IQ can reliably identify dyslexia risk.
  (Francis et al., 1996; Vellutino et al., 2004)
- The core mechanisms of dyslexia are consistent regardless of IQ.
  (Stanovich, 2005, Tanaka et al., 2011)

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Behavioral Predictors of Later Literacy Difficulties

2½ years

- Produces short sentences
- Has less accurate word production

3 years

- Displays receptive language problems
- Has difficulty naming items, objects, people *(processing speed)*
- May have phonological patterning problems *(unintelligibility)*

(Paulson & Moats, 2010)

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Behavioral Predictors of Later Literacy Difficulties

4 years

- May not know the boundaries between words
- Has problems differentiating similar-sounding words
- Has problems distinguishing and producing complex words

5 years

- Poor word recall *(phonological retrieval, naming)*
- Poor letter and letter-sound knowledge
- Poor rhyming
- Poor phonemic awareness

(Paulson & Moats, 2010)

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Early Language Predictors

- Early language development in infants as young as 8–30 months old. Poor speech perception in infants as early as 6 months of age.
- Impairment in syllable production by 19 months of age and fewer words and less grammatically complex sentence structures at 30 months of age.

(Lyytinen et al., 2005; Marchman & Fernald, 2008; Richardson et al., 2003; Scarborough, 1998)

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Precursors of Dyslexia in Early Literacy

across different languages

- Deficits in:
  - phonological awareness,
  - rapid automatized naming,
  - verbal working memory, and
  - letter knowledge
  - oral language/vocabulary

have been shown to be robust precursors of dyslexia in children as young as age three and into kindergarten.

(Al Otaiba & Fuchs 2006; de jong & van der Leij, 1999; Georgiou & Parrila, 2008; Puolakanaho et al., 2007 Schatschneider et al., 2004; Wanzek & Vaughn, 2007)

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Continuum of Literacy Development

	Phonemic Awareness	Alphabet Knowledge
Pre-K to K	Initial sound isolation	Letter name knowledge
K to Grade 1	Segmenting CVC words	Letter sound knowledge
Grade 1 to Grade 2	Complete phoneme segmentation	Word reading accuracy and fluency
Beyond Grade 2	Phoneme (rapid) manipulation	Multisyllabic word accuracy and fluency

(Catts et al., 2015; Kilpatrick, 2015; National Reading Panel, 2000)

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Phonological Awareness Age Expectations

What are the approximate age expectations for each of these skills?

1. Blending and segmenting syllables _____
2. Rhyme matching _____
3. Initial sound segmentation _____
4. Rhyme production _____
5. Sound segmenting single-syllable words _____
6. Sound deletion _____

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Optimal Letter Learning

Letter-Name Learning

- Considering literacy outcomes of word identification, spelling, and passage comprehension in first grade

  AND

- Looking at sensitivity, specificity, and positive predictive power

  THEN

- The optimal benchmark at preschool to kindergarten is:
  - **18 uppercase letter names**
  - **15 lowercase letter names**

(Piasta, Petscher, & Justice, 2012)

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Letter Learning Outcomes

What are the grade expectations for each of these skills?

Skill	Begins	Expected
Letter-name knowledge	_____	_____
Letter-sound knowledge	_____	_____
Letter-name fluency	_____	_____
Letter-sound fluency	_____	_____
Letter writing	_____	_____

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Required Universal Screening Skills Texas Dyslexia Handbook

Figure 2.2. Criteria for English and Spanish Screening Instruments

Kindergarten	First Grade
• Phonological Awareness • Phonemic Awareness • Sound-Symbol Recognition • Letter Knowledge • Decoding Skills • Spelling • Listening Comprehension	• Phonological Awareness • Phonemic Awareness • Sound-Symbol Recognition • Letter Knowledge • Decoding Skills • Spelling • Reading Rate • Reading Accuracy • Listening Comprehension

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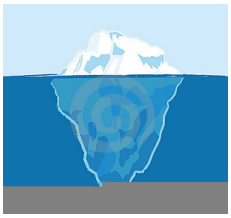
Statistical Learning



Explicit instruction
(the visible tip of the iceberg)

Leads to

Implicit learning
(the submerged part of the iceberg)

"Semi-supervised within an implicit experience." (Seidenberg, 2017)

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Early Literacy Foundations of Reading and Writing

- Oral Language
- Phonological Awareness
- Print Knowledge

- Phonemic Awareness
- Phonics
- Vocabulary
- Fluency
- Comprehension
- Spelling
- Composition

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Early Literacy Foundations

- Oral Language
  - Speaking and listening
- Phonological Awareness
  - Conscious awareness and ability to manipulate sound structures of words
- Print Knowledge
  - Concepts of print
  - Alphabet knowledge
  - Being a writer

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By Kindergarten . . .

Young children need to hear . . .

20,000 words every day!

(30 Million Words, Suskind, 2015)

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To build children's brains:

3 Ts of Talk

- **Tune in:**
  - to notice what children need from you
- **Talk more:**
  - self-talk
  - parallel talk
- **Take turns:**
  - "Strive for 5" turns

(30 Million Words, Suskind, 2015)

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Language Facilitation Strategies

Developing Receptive Language

- **Narration:** Talking about what is happening
- **Self-talk (I DO):** Describing what you are doing or how to do something
- **Parallel Talk (WE DO):** Describing what the child is doing or should be doing

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Language Facilitation Strategies

Developing Expressive Language

- **Recast**: An adult repeats what a child inaccurately says with a correct model.
- **Expansion** (extension): An adult adds more information (vocabulary or grammar) to the sentences that the child expresses.

Then encourage the child to say the sentence again.

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Phonological Awareness and a Bit More…

- **Phonological Sensitivity:** Speech development (infants and toddlers)
- **Phonological Awareness:** Metalinguistic (metaphonological) development (preschoolers)
- **Alphabetic Principle:** Letter/sound (grapheme/phoneme) development (pre-K to K)

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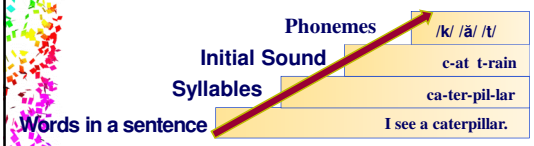
Linguistic Hierarchy of Words

The word parts of oral language include:



The hierarchy describes PA development.

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Phonological Awareness Hints

- Motion and gestures are important.
- Syllables are easier than sounds to identify in words.
- Say each syllable or sound in 1-second intervals. Decrease the time interval to make the task easier, and increase it to make the task more challenging.
- Say the *sounds* in the word and not the letter *names* (e.g., say "/d/–/ŏ/–/g/," not "*d – o – g*" or "/duh/–/ŏ/– /guh/").
- Beginning sounds are easier to isolate than ending sounds; middle sounds are the hardest.
- Consonant blends are more difficult.

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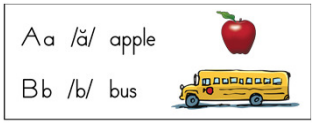
Letter Instruction Components

- Name
- Shape (uppercase/lowercase)
- Sound
- Target word
- Mouth shape
- Writing it



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Definition of "Sight Words"

Old definition: High frequency or irregularly spelled words

More current definition: Words read from memory

"People used to regard sight words as limited to high-frequency or irregularly spelled words, but it turns out that all words when practiced become read from memory by sight."

Linnea Ehri, 2014

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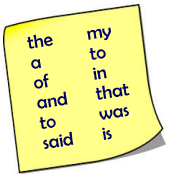
Sight Word Learning Expectations

- High frequency sight words (regular and irregular) are often taught in parallel to beginning phonics concepts.
  - 25-50 by the end of kindergarten
  - 150+ by the end of Grade 1 (Moats & Hall, 2010)
- Sight words are NOT learned holistically.
- 2000-3000 sight words represent about 95-98% of words in text. (Share, 2017)



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Being a Writer

- **Teach:**
  - Handwriting
  - Spelling
  - Composition
- **Learn:**
  - to write your name
  - to shape the letters
  - to write a message

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Letter Writing Instruction:

- Teaches transfer of handwriting to composing;
- Aims instruction at all levels (units) of language close in time so that all the components of working memory perform in synchrony;
- Adds instruction in transcription (handwriting and spelling) to writers' workshops and process approaches to written composition.

(Berninger, 2012)

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