Preparing Children to Become Readers and Writers

Part 1 Oral Language

• Lucy Hart Paulson, EdD, CCC-SLP

Foundations of Literacy Development

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

Oral Language

Phonological Processing

Print Knowledge

Preparing Children to Become Readers and Writers
Oral Language, Phonological Processing, Print Knowledge
Ohio Literacy Academy, 2021
Dr. Lucy Hart Paulson, EdD, CCC- SLP

Key Concepts

Literacy Developmental Phases	Word Reading and Spelling Development
-	1.
-	2.
-	3.
-	4.

6 Stages of Oral Language Development	Oral Language Structures Used
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Language Facilitation Strategies
- Receptive understanding: Self-talk (I DO) and parallel talk (WE DO)
- Expressive language: Recasts and expansions
- Vocabulary teaching routines
- Read alouds

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Literacy Developmental Phases

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

- **Early literacy** learning is the time period from birth to six years of age.

(Paulson & Moats, 2018)

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

- **Reading to learn** is a transition into the intermediate grades after basic reading and writing competency has developed.

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Part 1 Pre-Session Activity

- Read the overview of Ehri's Phases of Word Reading and Spelling provided by University of Florida Literacy Institute

https://education.ufl.edu/ufli/files/2020/03/EhriPhases.pdf

Word Reading and Spelling Development

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

Pre-alphabetic	Early Alphabetic	Later Alphabetic	Consolidated
• 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 compositions

(Ehri, 2014)

Foundations of Literacy Development

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

Oral Language

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Ponders and Queries for Oral Language

- What are the 5 main oral language structures?

- What are the main stages of oral language development?

- What structures emerge and are used at each stage?

- What oral language stimulation strategies and routines do you use?

Finally,

- How do the oral language structures connect to written language?

Key Concepts of Oral Language Structures

Match the oral language structure to the key concept.

1. Prosody

2. Phonology

3. Semantics

4. Syntax

5. Morphology

Word meaning

Word parts

Expression

Speech sounds

Word order

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Stages of Oral Language Development

Infants Toddlers Preschoolers   --   growing older with increasing complexity

Prelexic - Babbling (6-8 months)

Lexic - First Words (8-14 months)

Systematic Simplification – Word combinations (18-24 months)

Assembly – Word parts (2½ - 3 years)

Metaphonological – Word meaning and structure

Discourse/Narration – Expanding complexity

(Paulson & Moats, 2018)

Oral Language Foundations

Infants Toddlers Preschoolers   -- growing older with increasing complexity

Prosody – Expression and melody of language

Phonology – Speech sounds

Semantics – Word and phrase meaning

Syntax – Word order in sentences

Morphology – Word order in sentences

Facilitating Oral Language Development

- **Receptive Language**
  - Self-talk
  - Parallel talk

- **Expressive Language**
  - Expansion
  - Recast

- **Vocabulary Teaching Routines**

- **Questioning Routines**

- **Read Alouds**

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Part 1 Post-Session Activities

Post-Session Reflection
- Reflect on what structures of oral language contribute to reading and spelling words.

Breakout session preparation
Reflect on these questions:
- What oral language facilitation strategies are you using?
  - Receptive and expressive language routines
  - Questioning routines
  - Vocabulary selection and teaching routines
  - Read-aloud routines

Preparing Children to Become Readers and Writers

Part 2 Phonological Processing

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Foundations of Literacy Development

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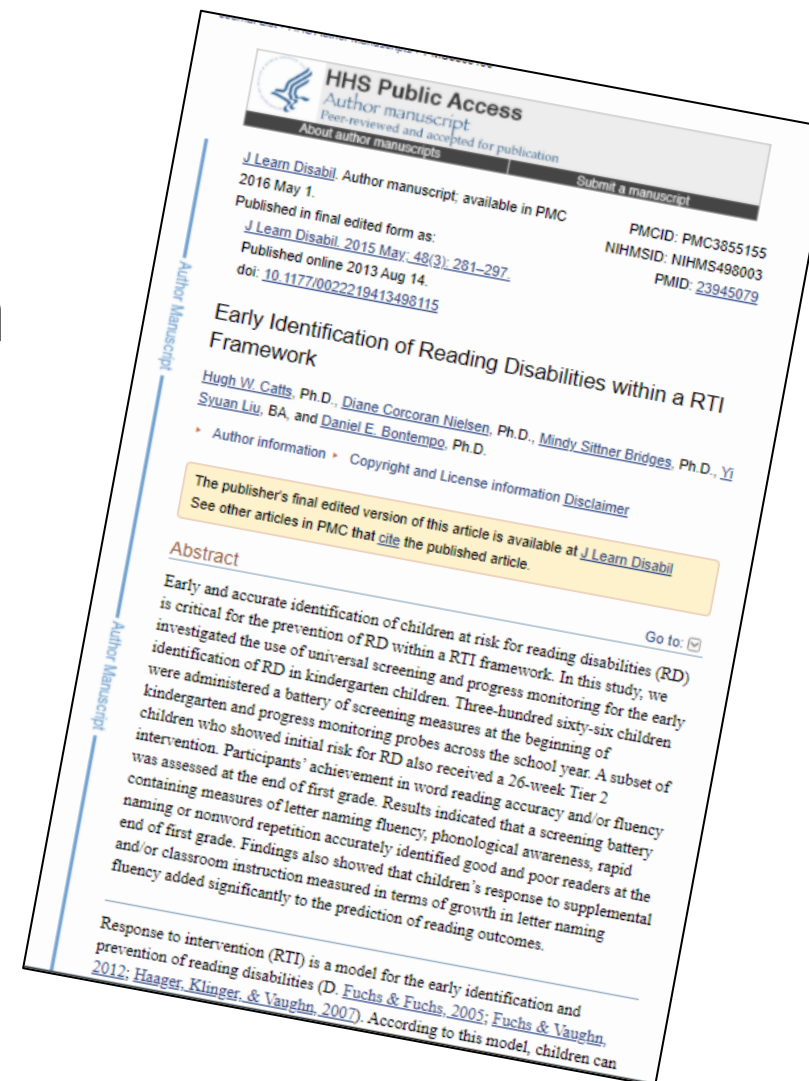

Oral Language

Phonological Processing

Print Knowledge

Part 2 Pre-Session Activity

- Read the Catts et al. article "Early Identification of Reading Disabilities within a RTI Framework."

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855155/

Ponders and Queries for Phonological Processing

What is your understanding of these "PH" terms?

☺ ☺ Phonological vs phonemic awareness

☺ ☺ Phonological naming and retrieval

☺ ☺ Phonological working memory

☺ ☺ Phonological sensitivity

☺ ☺ Phonological representation

Phonological Awareness Learning

What word parts do young children <u>typically</u> learn to play with first?

Sounds   or   **Syllables**

Phonological "PH"oundation Considerations

PHONOLOGICAL PROCESSING		
Phonological Awareness	**Phonological Naming**	**Phonological Memory**
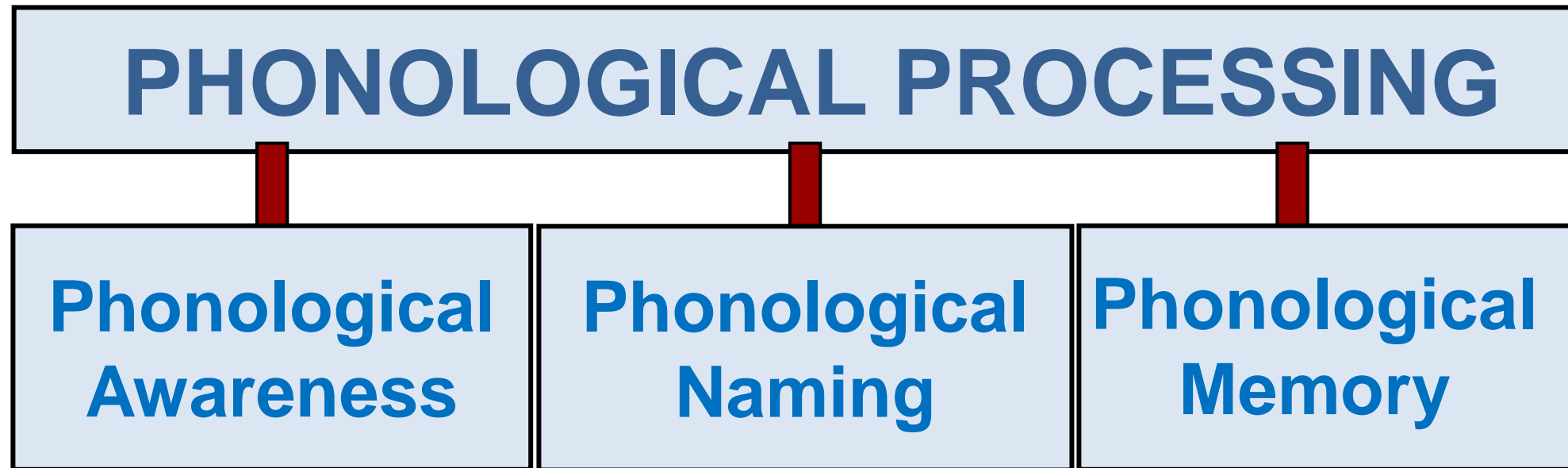
- **Phonological awareness:** Ability to *consciously manipulate* syllables and sounds (**phonemic awareness**) in oral language

- **Phonological naming** (or access to lexical storage): Ability to *retrieve* words from long-term memory

- **Phonological working memory:** Ability to process and recall sound information in *short-term memory*

(Anthony & Francis, 2005; Lonigan, 2006; Wagner, Torgesen, & Rashotte, 1994; Whitehurst & Lonigan, 2002).

Phonological "PH"oundation Considerations
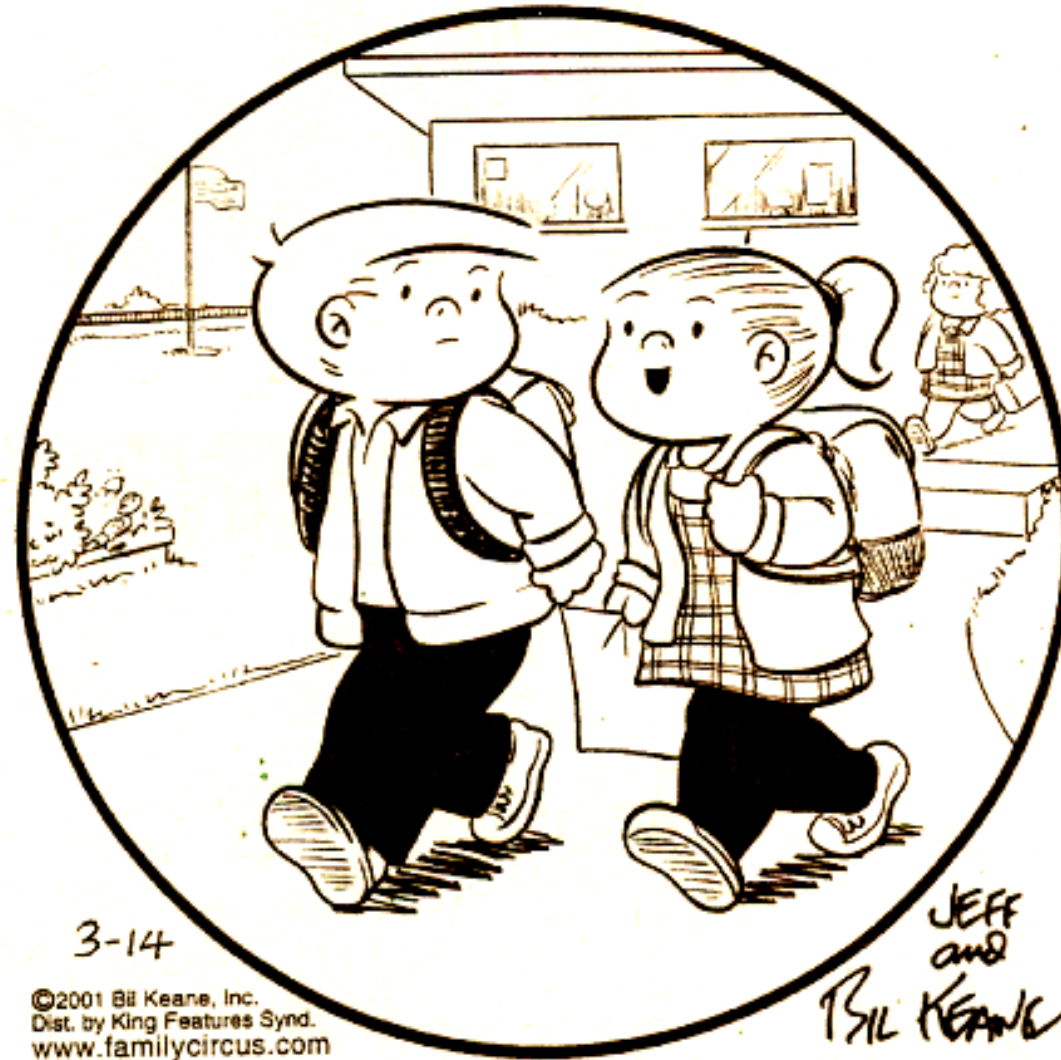
Phonological Sensitivity:

- Infants and toddlers become "sensitive" to the phonemes, syllable patterns and word boundaries of the language they are loved in.
- Speech sound development and early word learning

(Guttorm et al., 2005; Morais, 1991; van Goch, McQueen, & Verhoeven,2014)

Doe in da tar.
Doe in da tar.

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Word boundaries...

Family Circus

"Mrs. Clarke is reading us 'The Ugly Duckling' by Hans Christian and her son."

Phonological Sensitivity

- Babies born up to three months premature can recognize different syllables in human speech.

- Similarities were found in the way the brain processes language in newborns and adults—including specific neurological reactions to changes between the "ba" to "ga" sound and to a male to female voices.

(Mahmoudzadeh et al., 2013)

Phonological "PH"oundation Considerations

Phonological Sensitivity:

- Speech sound development and early word learning (Guttorm et al., 2005; Morais, 1991; van Goch, McQueen, & Verhoeven, 2014)

Phonological Representation:

- How the pronunciations of known words are stored ("inner speech") (Sutherland & Gillon, 2005)
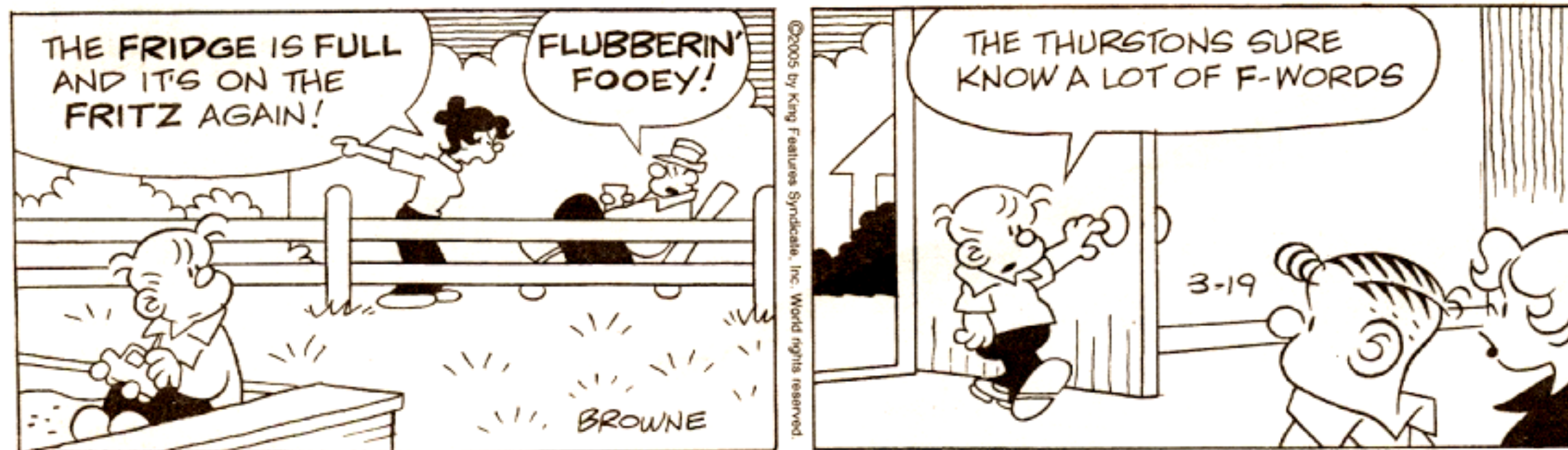
Phonological Awareness: (preschoolers)

- Metaphonological (metalinguistic) development

Phonological "PH"oundation Considerations
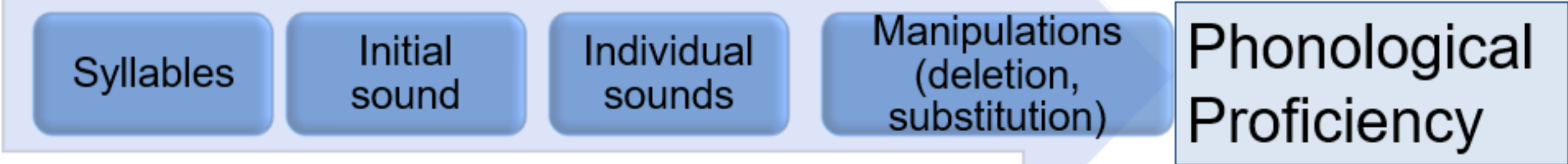
- **Phonological Awareness:** (preschoolers)
  - Metaphonological (metalinguistic) development

Progression of Phonological Awareness Skill Development

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

Early ⟩ Basic ⟩ Advanced

| Syllables | Initial sound | Individual sounds | Manipulations (deletion, substitution) | Phonological Proficiency |

(Kilpatrick, 2015)

Progression of Phonological Awareness Skill Development

Early	Toddler to preschooler	Segmenting and blending syllables
		Rhyme detection
Basic	Preschool to 1st grade	Segmenting and blending initial and individual phonemes
		Rhyme production
Complex	2nd grade and beyond	Adding, deleting, substituting, and reversing word segments

Catts et al., 2015; National Early Literacy Panel, 2008;
Kilpatrick, 2015; National Reading Panel, 2000

Linguistic Hierarchy of Words

The word parts of oral language include:
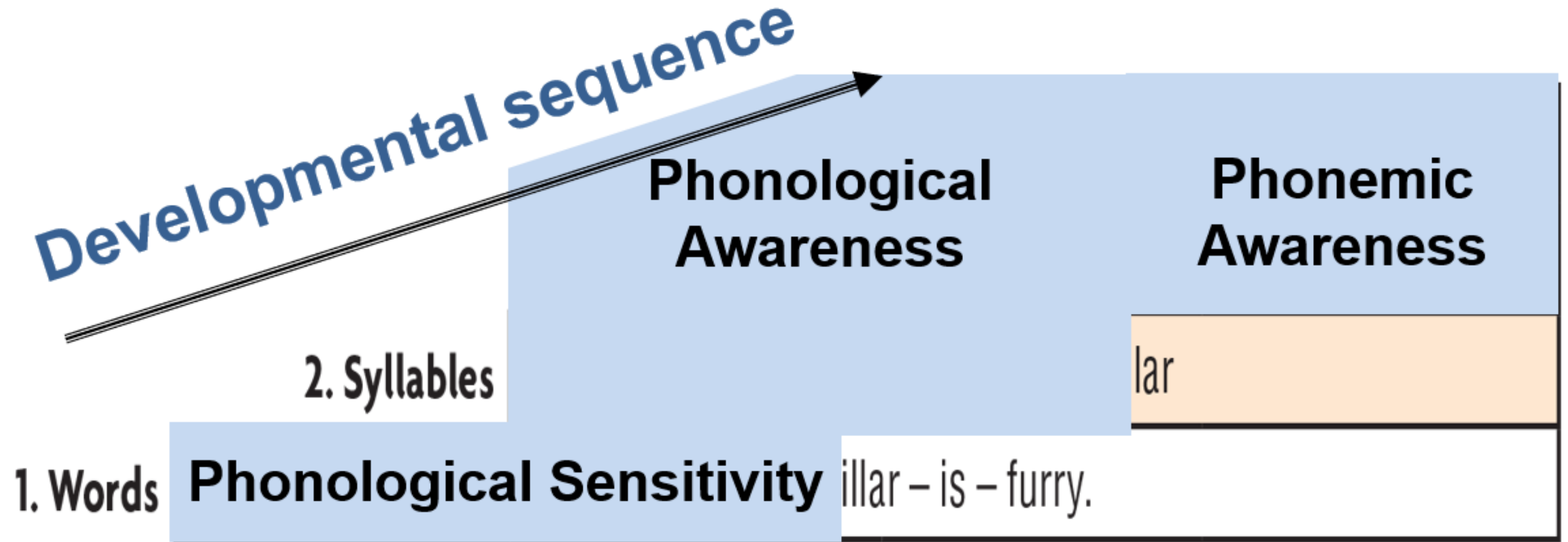
Why NOT Onset/Rime in PA?

(Gillon, 2017)

ONSET - the initial consonant(s) preceding a vowel in a syllable

RIME - the vowel(s) and following consonants in the syllable

   r – ain,   **tr** – ain,   **str** – ain

RHYME - words that sound the same at the end

RHYME

**Phonologic
Oral Language**

RIME and RHYME

**Orthographic
Written Language**

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"Early Identification of Reading Disabilities: Within an RTI Framework"

(Catts, Nielsen, Bridges, Liu, & Bontempo, 2015)

A screening battery in kindergarten of:

➤ **Letter name fluency**

➤ **Phonemic awareness (sound matching)**

➤ **Rapid Naming**

➤ **Nonword repetition**

Accurately identified good and poor readers at the end of 1st grade.

Rapid Automatic Naming (RAN) Tasks

- RAN assessment tasks are more relevant at different ages and instructional levels.

- Naming objects, colors, and shapes are more predictive of literacy development for younger students, before receiving reading instruction.

- Letter and numeral naming tasks are better predictors for older students, after the onset of reading instruction.

(de Jong, 2011; Lervåg & Hulme, 2009)

To Teach or Not To Teach?

Screener Indicators

➤ **Letter name fluency**

➤ **Phonemic awareness**

➤ **Rapid Naming**

➤ **Nonword repetition**

Instruction Targets

➤ **Letter names?** ➤ **YES**

➤ **Phonemic awareness?** ➤ **YES**

➤ **Rapid Naming?** ➤ **NO**

➤ **Nonword repetition?** ➤ ***maybe**

*maybe – all new vocabulary words are "nonwords" to young children

Facilitating Phonological Awareness Development

What are the routines and strategies you use to assess and teach the continuum of phonological awareness skills?

- Intentional and explicit instruction?

- Embedded opportunities?

Part 2 Post-Session Activities

Post-Session Reflection
- Reflect on your big AHAs and ways you will use this information; with a colleague, describe the interaction among phonological sensitivity, phonological representation and phonological processing.

Breakout session preparation
　　Reflect on these questions:
- What is the sequence of development of phonological to phonemic awareness?
- How do you assess phonological awareness?
- What instruction and/or intervention strategies do you use to teach phonological and phonemic awareness?

Ponders and Queries for Phonological Processing

What is your understanding of these "PH" terms?

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☺ ☺ Phonological naming and retrieval

☺ ☺ Phonological working memory

☺ ☺ Phonological sensitivity

☺ ☺ Phonological representation

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Part 2 Phonological Processing

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Part 3 Pre-Session Activity

- Read the article "Moving to Assessment-Guided Differentiated Instruction to Support Young Children's Alphabet Knowledge" by Shayne Piasta.
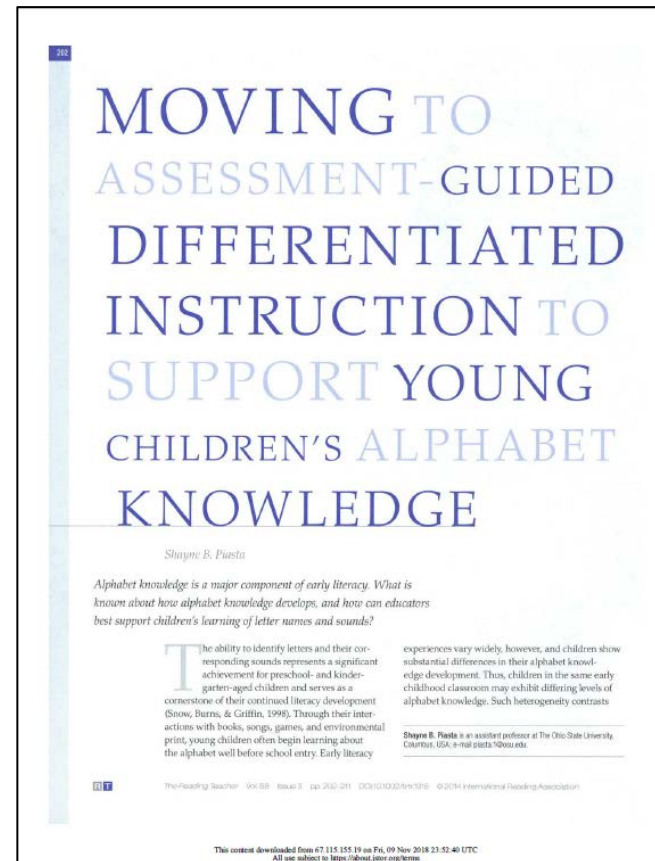
Your Perspective on Letter Knowledge

True or ~~**False**~~ ?

In order to learn to read well, a child needs to know **letters names** <u>and</u> **letter sounds**.

Your Perspective on Letter Knowledge

What do young children
<u>typically</u> learn first?

letters names   or   **letter sounds**

Word Reading and Spelling Development

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

Pre-alphabetic	Early Alphabetic	Later Alphabetic	Consolidated
• 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 compositions

(Ehri, 2014)

Developmental Trend Connections

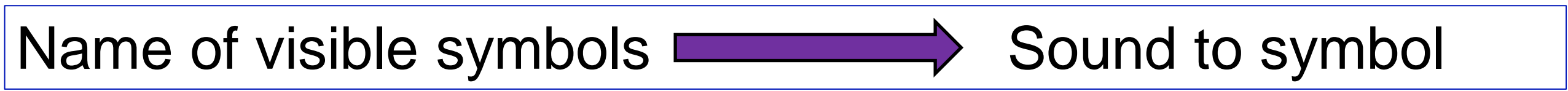Early literacy ⟹ Early reading/writing ⟹ Reading to learn
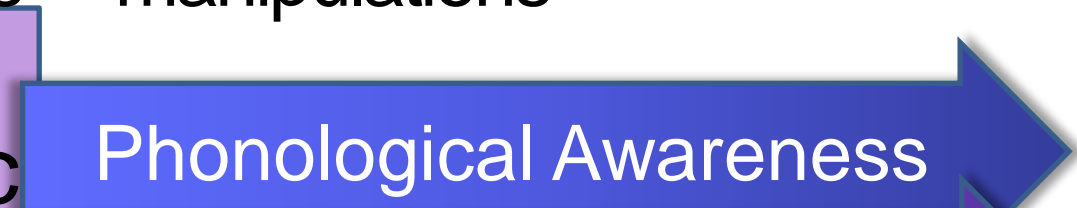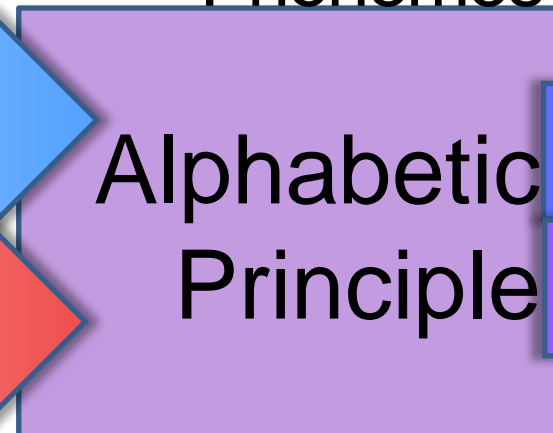

Early   **Basic**   **Basic**   **Advanced**

Syllables - initial sounds   Phonemes - manipulations

Phonological Awareness

Letter Knowledge

Alphabetic Principle

Phonological Awareness

Phonics

Name of visible symbols ⟹ Sound to symbol
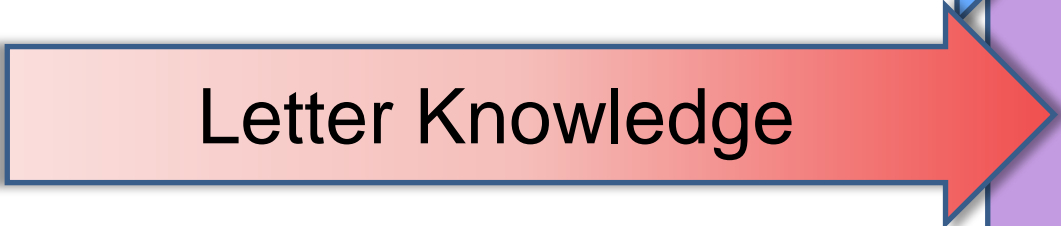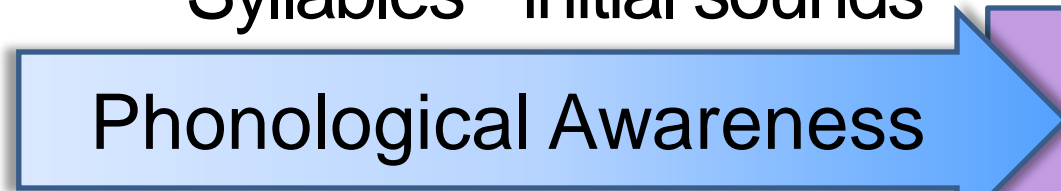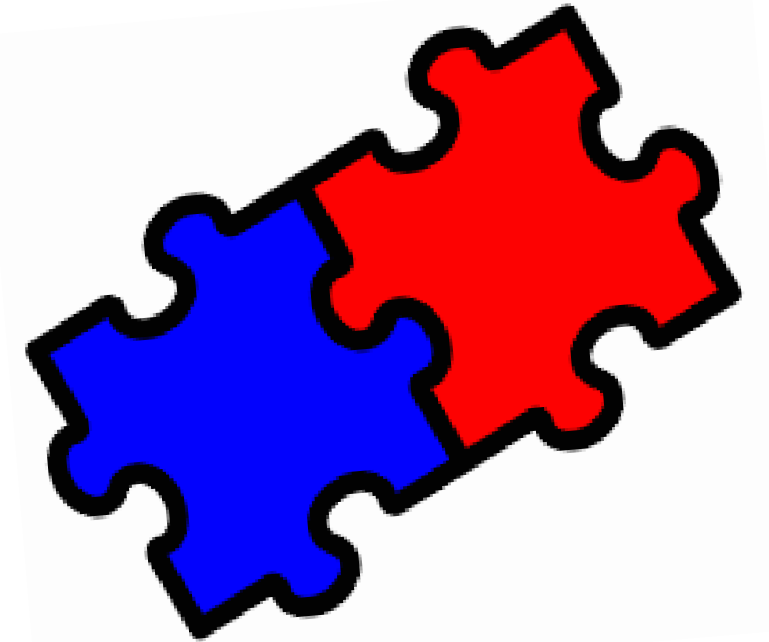
Predicting Later Reading Development

The **best TWO** predictors of reading
achievement in early kindergarten to
2nd grade are:

☑ **Phonemic awareness (sound isolation)**

☑ **Letter knowledge**

(National Early Literacy Panel, 2008; National Reading Panel, 2000)

Transition from Early Literacy to Early Reading and Writing

Alphabetic Principle

Phonics

Alphabet Knowledge

Phonemic Awareness

/k/ /æ/ /t/

cat

c – a – t

cat
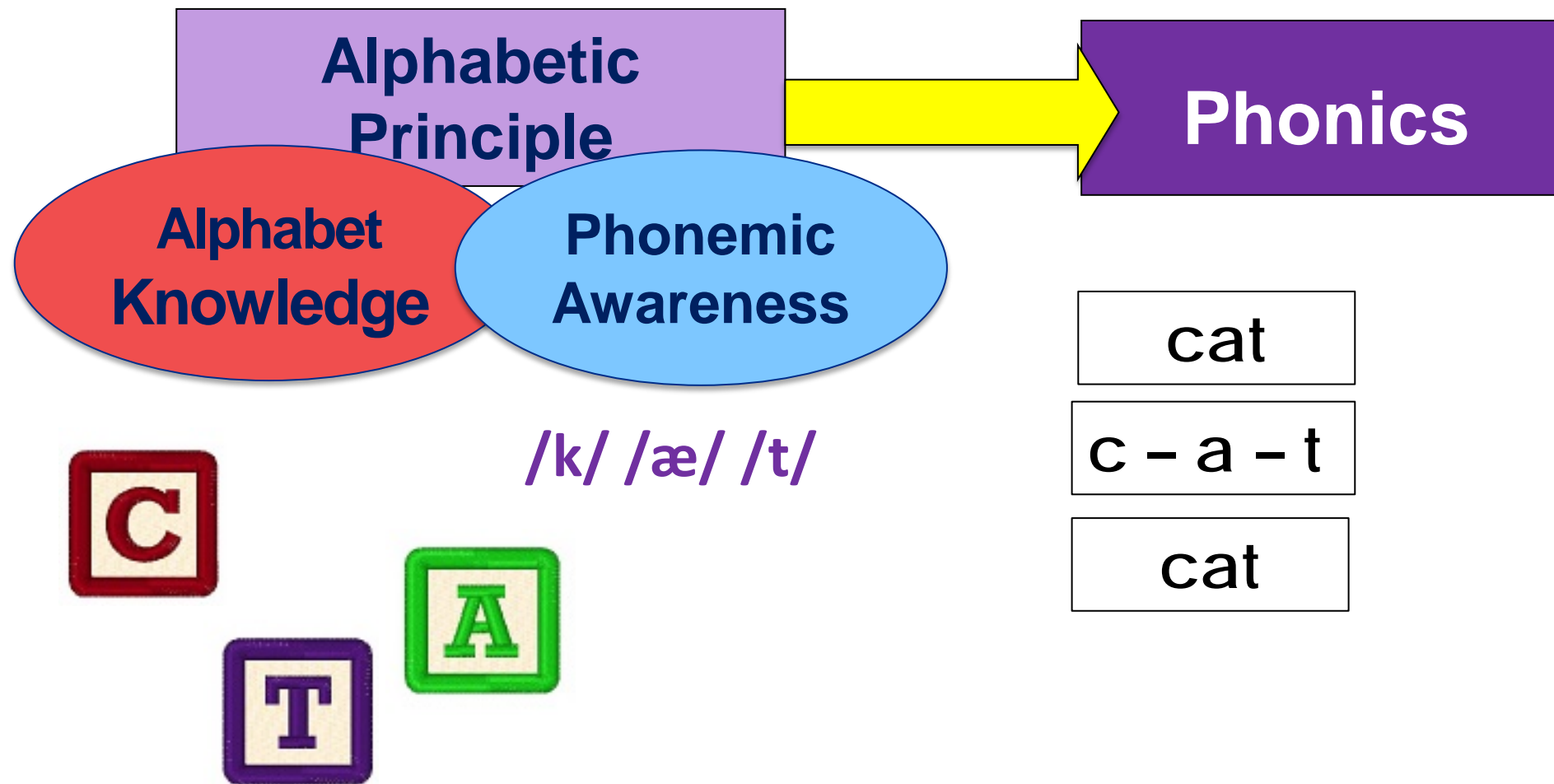
Letter Naming Considerations

- Letter-name knowledge is one of the most powerful predictors of later reading achievement. (Caravolas et al., 2005; Leppanen et al., 2008; Schatschneider et al., 2004)

- Letter naming speed is the largest predictor of word-reading ability for first grade students. (Neuhaus & Swank, 2002)

- Letter naming must be accurate and fast. (Neuhaus & Swank, 2002)

- Letter names are the catalysts for learning letter sounds. (Ehri, 2005, Foulin, 2005, NRP, 2000)

Letter Recognition Considerations

- Letters are the written symbols that are cognitively processed to make reading possible. (Adams, 2002)

- Letter names are the only property of a letter that does not change.

- Reading both letters and words requires the ability to encode, store, and retrieve lexical labels for abstract symbols. (Allen & Neuhaus, 2018)

Letter Properties

- Consonant or vowel
- Place and manner of articulation
- Age when a speech sound is typically produced
- Confusability of letter shape and/or pronunciation with other letters
- Frequency in print materials
- Letter name-to-sound facilitation effect (i.e., B vs C)

(Piasta & Wagner, 2010b)

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Letter Learning Outcomes

- Letter name knowledge
- Letter sound knowledge
- Letter name fluency
- Letter sound fluency
- Letter writing
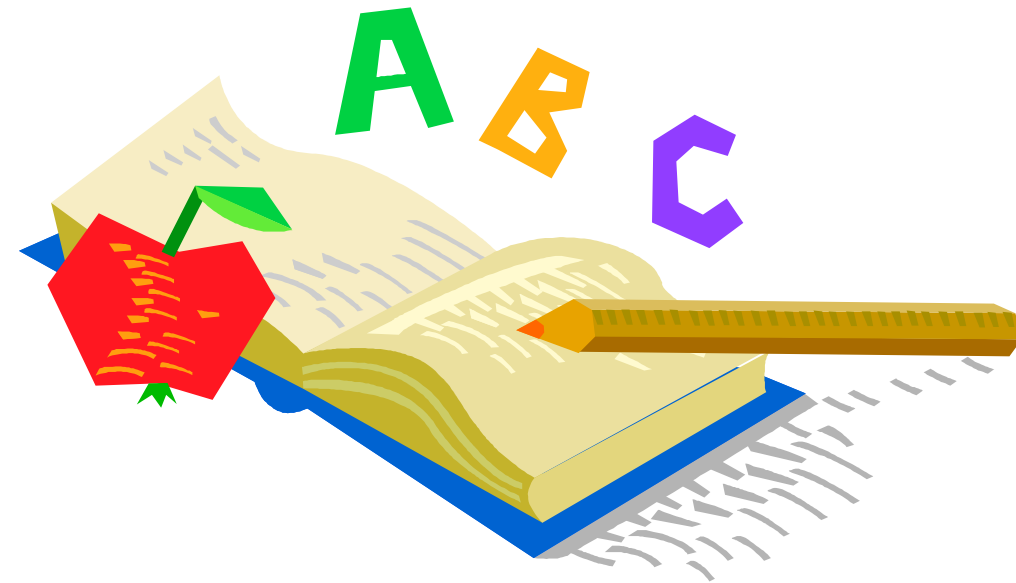
(Piasta, Petscher, & Justice, 2012)
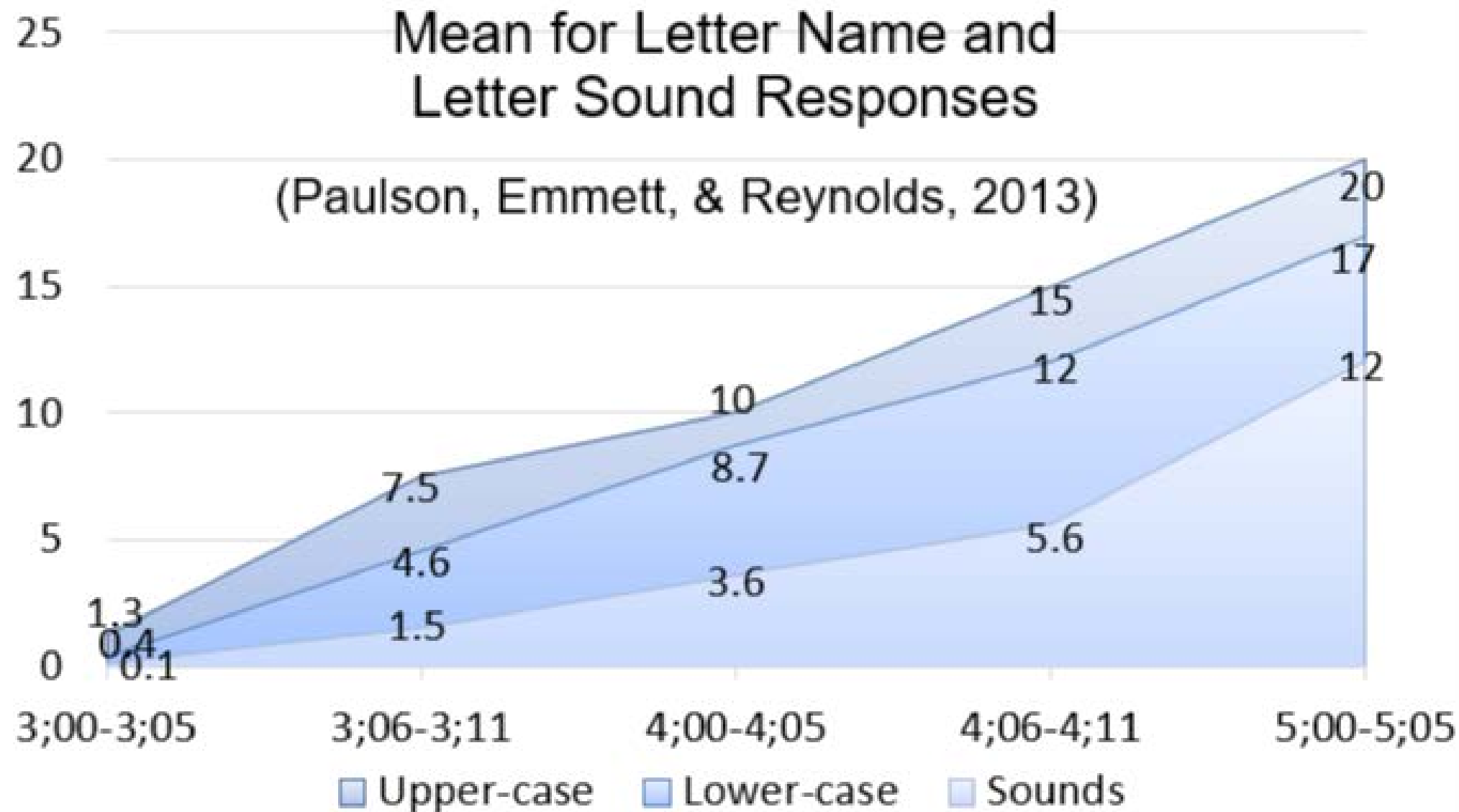
Narrow Window for Alphabet Learning

- **Floor effects** in preschool children
- **Ceiling effects** in studies with older children
  (Ouellette & Haley, 2013)

- There are wide ranges of alphabet learning achievement in young children.
  (Piasta & Wagner, 2010a)

Letter Name Learning in Preschool

Letter name knowledge in 3-4 yr. olds (Justice et al., 2006)	Impact Size
Own-name advantage	11 X
Any letter	1.5 X
Initial letter	7.3 X
Alphabet order hypothesis	1.02 X
Letter-name/sound pronunciation effect	
CV vs VC	n.s.
CV vs NOT	1.8 X
Consonant order hypothesis	1.09 X

Letter Name and Sound Learning in Preschool

Mean for Letter Name and Letter Sound Responses

(Paulson, Emmett, & Reynolds, 2013)

Age	Upper-case	Lower-case	Sounds
3;00-3;05	1.3	0.4	0.1
3;06-3;11	7.5	4.6	1.5
4;00-4;05	10	8.7	3.6
4;06-4;11	15	12	5.6
5;00-5;05	20	17	12

(Range was 0-26 at each age level for letter names.)

Letter Name and Sound Learning in Kindergarten

"Letter Name, Letter Sounds and Phonological Awareness: An Examination of Kindergarten Children Across Letters and of Letters Across Children"

(Evans, Bell, Shaw, Moretti, & Page, 2006)

Task	Mean	SD	Range
U/C Names	23.1	4.9	2-26
L/C Names	19.5	6.1	1-26
L/C Sounds	15.1	8.1	0-26

(Conducted in April of the school year)

Letter Name Knowledge

- LNK at entry into kindergarten was the best individual predictor of K reading achievement and second best after phoneme segmentation in first grade reading achievement.

- LNK allows children to bridge the gap between visual-cue strategy to phonetic-cue strategy in early literacy.

- LNK contributes to phonemic sensitivity.

(Bailet et al., 2009; Evans et al., 2006; Foulin, 2005; Piasta & Wagner, 2010b; Treiman et al., 1998)

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:

  Optimal benchmark at **P-K to K** of:

  – **18 uppercase letter names**
  – **15 lowercase letters names**

  Piasta, Petscher, & Justice, 2012

Current Challenges

- Approaches to alphabet teaching vary greatly with relatively little knowledge about the impact of these various methods of instruction.

    (Piasta & Wagner, 2010a)

Teaching Letter Knowledge

- Letter of the week instruction is based on tradition.
  - It takes 26 weeks 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.

Teaching Letter Knowledge

- A comparison of alphabet instruction in <u>preschool</u> curricula shows:
  - Some do not make mention of explicit instruction of letters
  - Instruction in ABC order
  - Instruction based on letter frequency
  - Instruction in letter sound only
  - Instruction in lowercase letters

  (Piasta & Wagner, 2010b)

Meta-Analysis of Alphabet Learning and Instruction

- Instruction in alphabet knowledge has <u>modest</u> effect sizes.

- Letter-name instruction led to significant impacts on letter-sound knowledge.

- Letter-sound (only) instruction led to letter-sound learning (not letter-name learning).

- Instruction in greater duration was more effective.

(Piasta & Wagner, 2010a)

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Meta-Analysis of Alphabet Learning and Instruction

Why only modest effect sizes?

- Alphabet learning may require significant amounts of rote memorization and repeated practice.

- Letter-name and sound instruction were embedded in a broader literacy program.

- Children have opportunities to learn about letters in other settings.

- This may reflect our current ability to teach alphabet knowledge in the early literacy period.

(Piasta & Wagner, 2010a)

Letter Sound-only Instruction

Drawbacks to teaching sound-symbol associations without teaching the names of the symbols:

– Some graphemes regularly represent more than one phoneme.

– When trying to identify unknown words, new readers without letter-name knowledge are limited to the number of letter-sound correspondences that have been taught.

– Students with more complete letter name knowledge may be able to use it to help retrieve the sounds of the letters that they are still learning.

– Labeling an item helps consolidate that information in long-term memory for quick and accurate recall.   (Adams, 1994)

Instructional Guidance (Piasta & Wagner, 2010b)

- "Our findings are <u>contrary</u> to findings that letter name instruction is unimportant or, worse, detrimental for children's letter sound acquisition…. Such beliefs have prompted approaches for teaching early literacy that disregard letter names altogether."
- Letter name learning, when combined with sound instruction may causally impact students' letter sound acquisition.

Letter Instruction Components

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

A a /ă/ apple

B b /b/ bus

Teaching Letters

Teaching Alphabet Knowledge (designed for kindergarten)

Explicit lesson format includes teacher modeling and guided practice for:

1. Uppercase and lowercase letter-name identification
2. Letter-sound identification
3. Recognizing the letter in text
4. Producing the letter form
5. Also include articulation production

(Ehri, 2014; Jones, Clark & Reutzel, 2012)

Teaching Letters (*cont.*)

Sequences:

1. Own-name advantage

2. Alphabet order

3. Letter-name and letter-sound connections

4. Letter frequency

5. Consonant acquisition order

6. Distinctive visual features in writing

(Jones, Clark & Reutzel, 2012)

What do we really know?

- Letter-name knowledge precedes letter-sound knowledge, and both are important.
- There are WIDE developmental ranges and a narrow time frame of development.
- Many characteristics influence letter learning.
- Explicit instruction has larger effect sizes than embedded instruction.
- Alphabet learning most likely requires significant amounts of rote memorization and repeated practice.
- Multi-component instruction is effective.

Writing Development Connections

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

| Pre-alphabetic | Early Alphabetic | Later Alphabetic | Consolidated |

- No distinction between drawing and writing
- Pre-conventional
  - Scribble
  - Mock Letter
  - Random Letter Strings

- Semiphonetic writing

- Phonetic writing

- Conventional spelling and writing compositions

Developmental Levels for Writing

0. No distinction between drawing and writing

1. Pre-conventional

   - Scribble

   - Mock Letter

   - Random Letter Strings

2. Semi-phonetic

3. Phonetic

4. Conventional

Facilitating Print Development

What are the routines and strategies you use to teach:

- Alphabet knowledge?

- Alphabetic principle?

- Writing development?

Part 3 Post-Session Activities

Post-Session Reflection
- Reflect on what aspects of this content matches up with your understanding and what you are contemplating with alphabet learning and instruction along with the importance of including writing instruction.

Breakout session preparation
Reflect on these questions:
- What is your sequence and schedule of alphabet instruction and how your students are learning,
- What does your writing instruction look like in your setting?
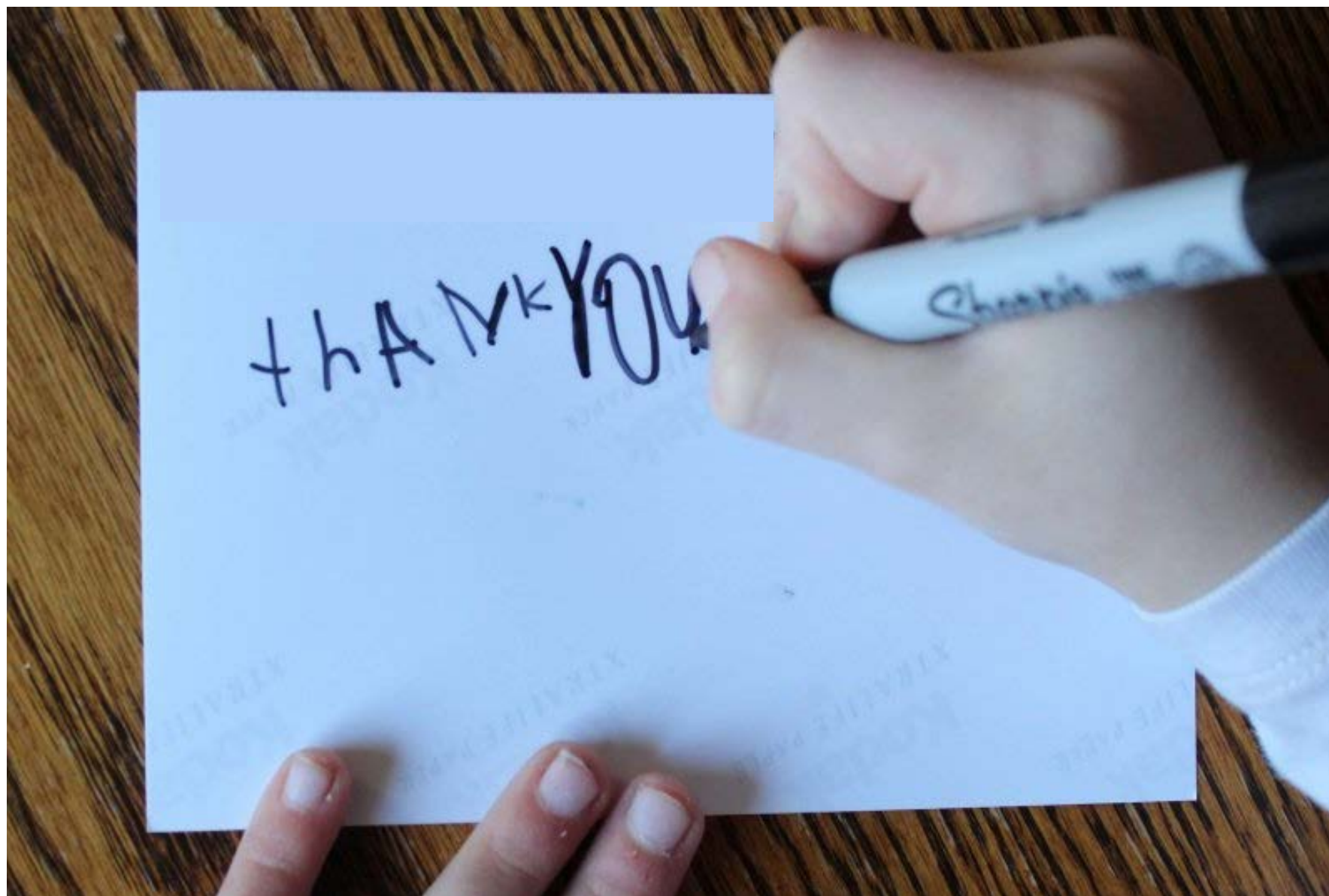
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