



Emergent Literacy

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CRANE
CENTER
FOR EARLY
CHILDHOOD
RESEARCH AND
POLICY (CCEC)

Emergent Literacy

150 minutes:

- ‘emergent literacy’ & simple view of reading
- three emergent literacy domains
- several evidence-based practices

1. Overview of 'emergent literacy' &
simple view of reading



Continuum of Reading Development



**Emergent
Literacy**



Early Literacy



**Conventional
Literacy**



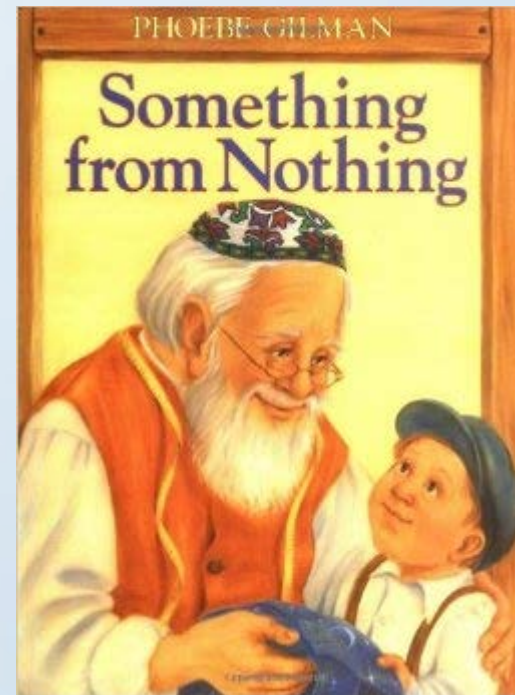
**Adolescent
Literacy**

What is reading, anyway?

When Joseph was a baby, his grandfather made him a wonderful blanket...

Question:

What is reading?



“Simple” View of Reading

$$D \times C = R$$

• دي موين هي مدينة جميلة جدا

Columbus es una ciudad muy hermosa

- Simple View of Reading (SVR)

$R =$

Word Recognition (Decoding) x
Comprehension (Language Skills)

D	C	Reading Status
Good	Good	Typical Reader (Fluent and automatic by about 9 years)
Poor	Good	Decoding-specific reading disability (dyslexia)
Good	Poor	Comprehension-specific reading disability (poor comprehenders)
Poor	Poor	Globally impaired reader (garden variety poor reader)

Children who will become poor readers are recognizable **before** reading instruction begins

They show lags in developing skills that are precursors to **decoding** and/or **comprehension**:

- **print knowledge**
- **phonological processing**
- **vocabulary (part of oral language)**

Literacy and Young Children?



Literacy and Young Children?



What skills do we observe in young children that are foundational to **(predictive of)** future reading?

BE SPECIFIC!

What does 'early literacy' look like in a young child?



Pretending to write

Pretending to read

Naming letters

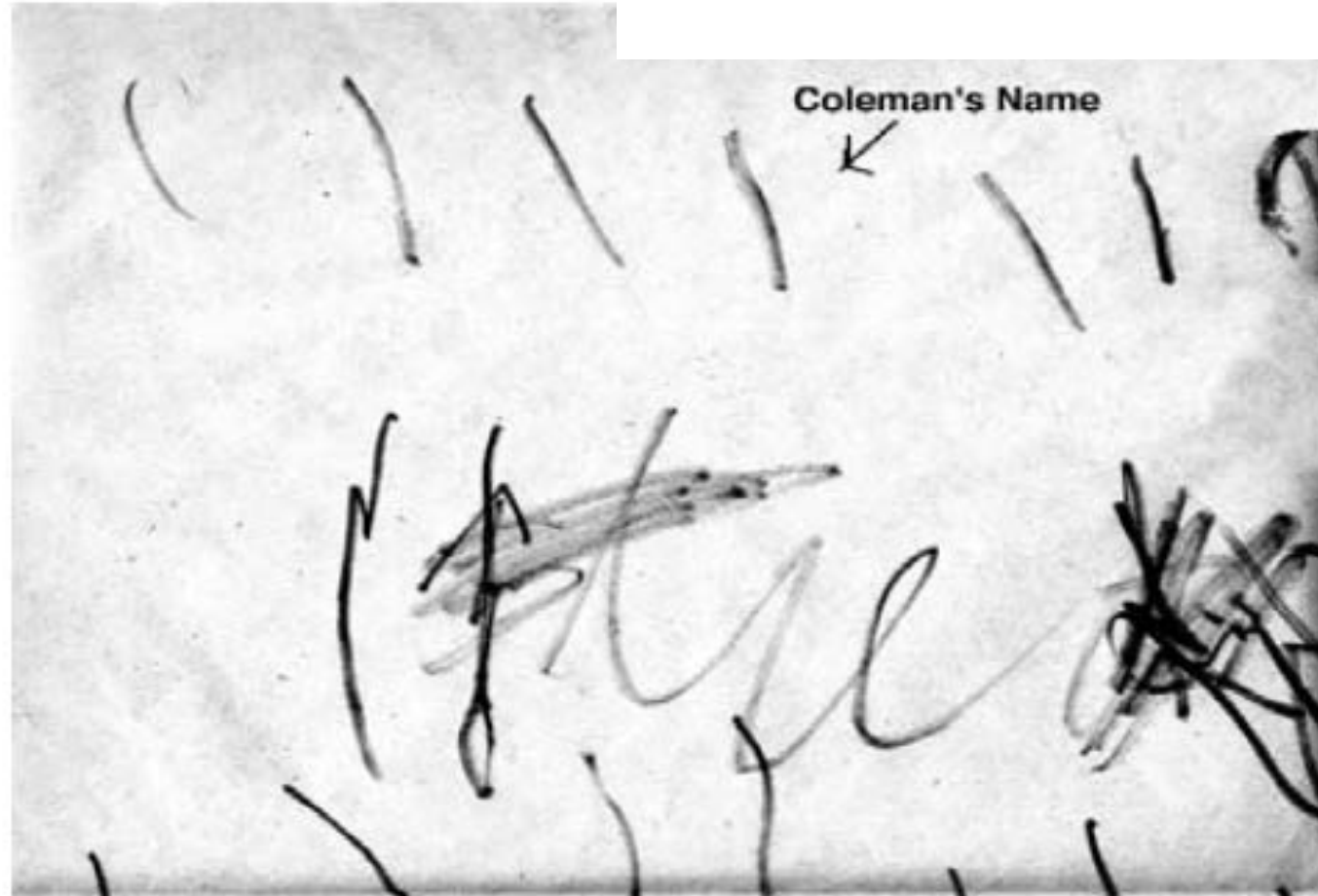
“Reading” print in environment

Writing own name

Asking questions about print

Asking to be read to

Figure 5. Coleman's Signature (January 11)



Rowe (2008)



5 Key Understandings

- 1 Preschoolers' language and literacy skills are consistently and significantly related to later reading achievement

"Code Based Skills"	"Meaning Based Skills"
Foundational for D (Decoding)	Foundational for C (Comprehension)

Longitudinal Studies

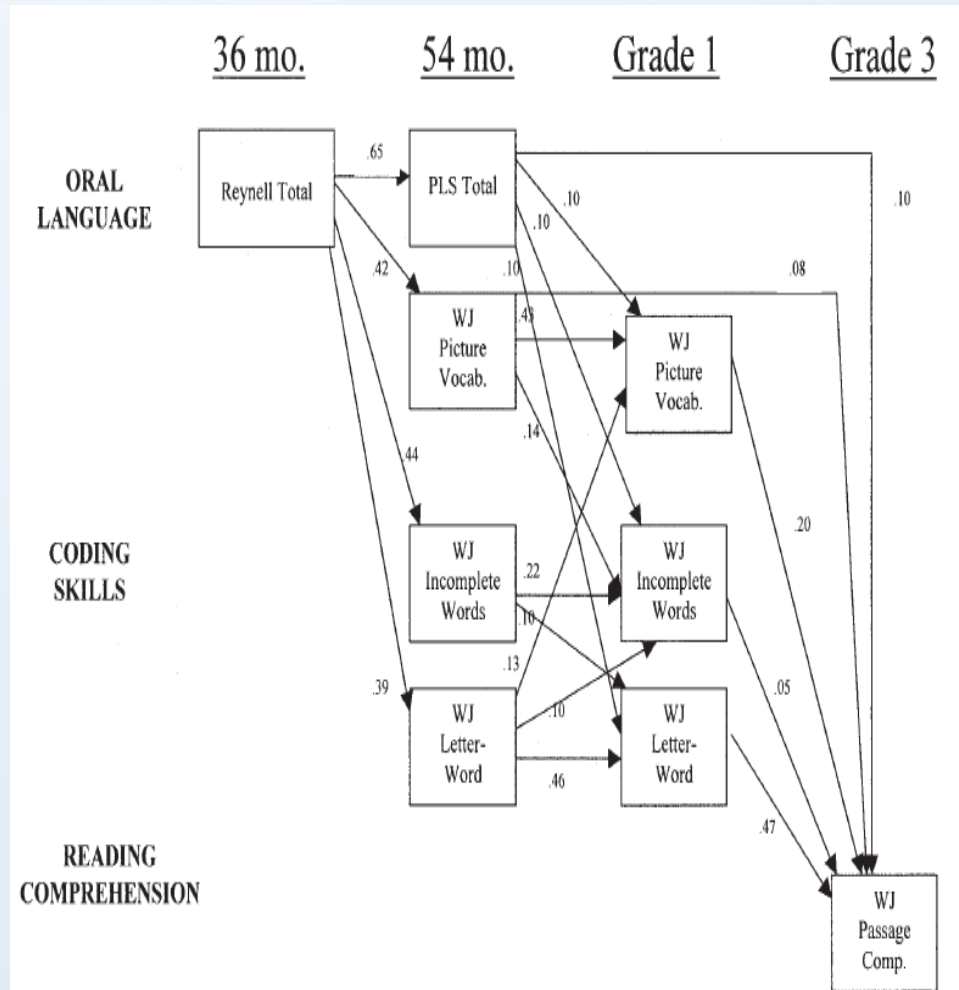
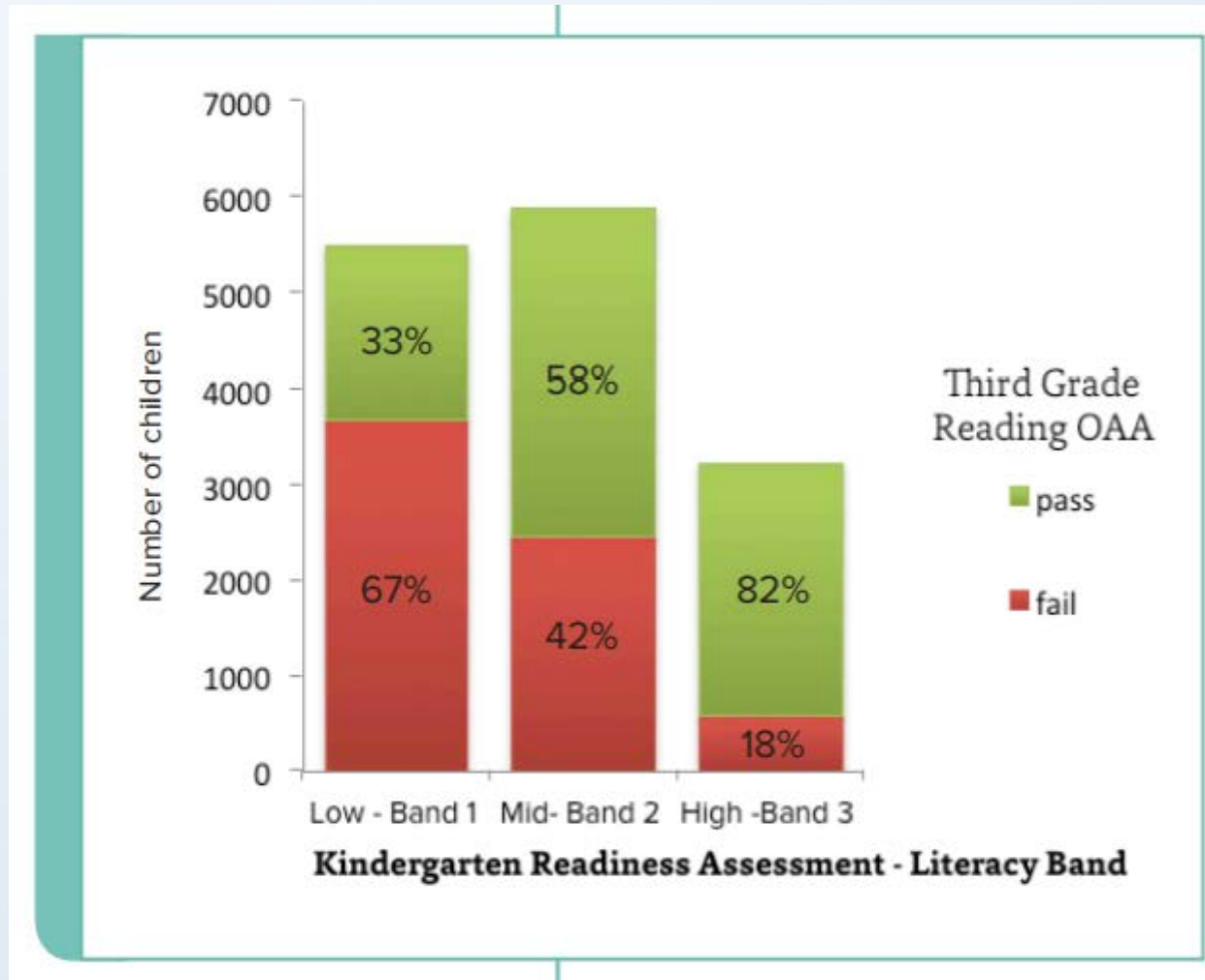


Figure 3. Path analyses for the comprehensive model. Nonsignificant paths and their correlations are not presented in the figure (see Tables 3 and 4). Reynell = Reynell Developmental Language Scales; PLS = Preschool Language Scale; WJ = Woodcock-Johnson Psycho-Educational Battery—Revised; Vocab. = Vocabulary; Comp. = Comprehension.

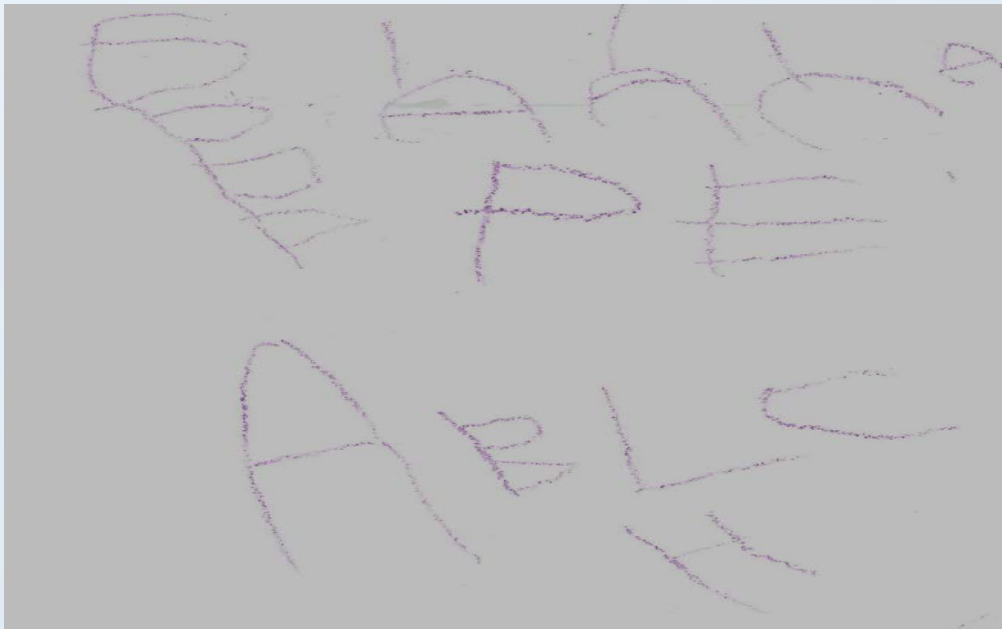
Longitudinal Studies



A student who scores in Band 3 on the KRA-L is eight times more likely to pass the third-grade OAA than a student who scored in Band 1, and is three times more likely to pass than a student who scores in Band 2.

5 Key Understandings

- 2 Children with well-developed language and literacy skills at kindergarten entry tend to be better readers in the future than children with less-developed skills



5 Key Understandings

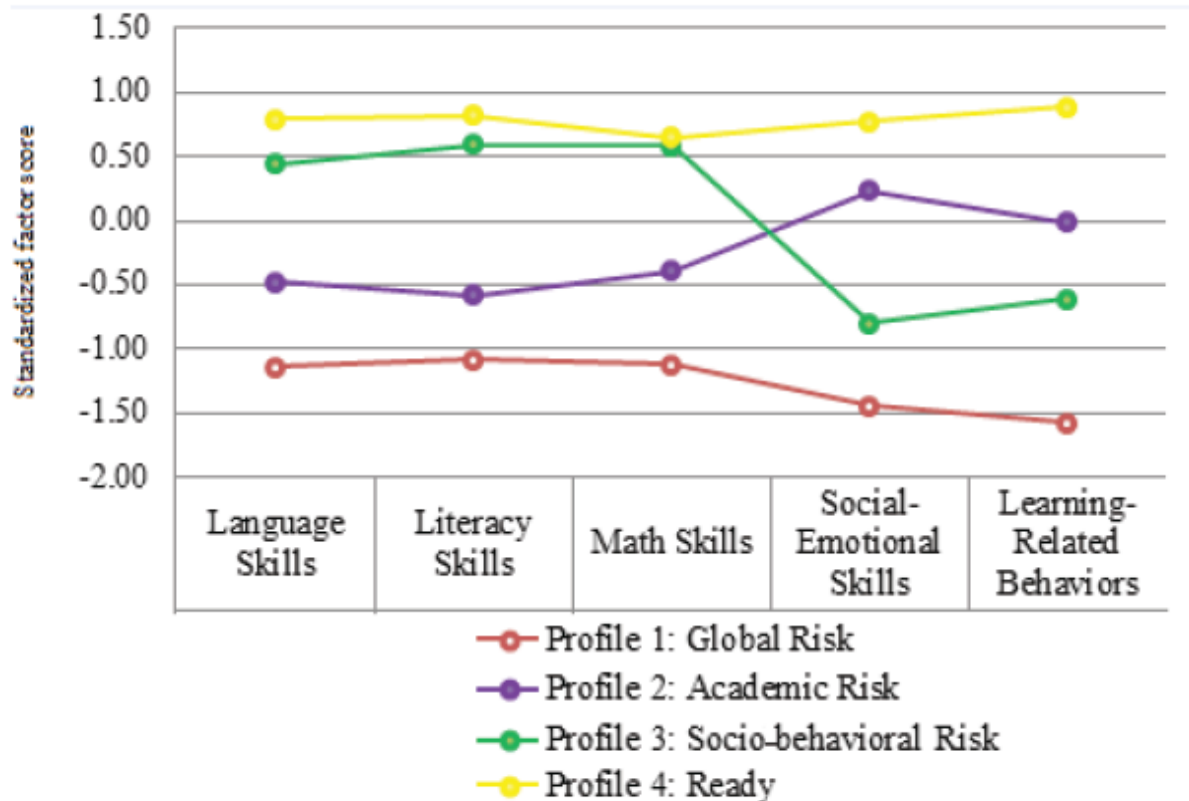
3 Some children are vulnerable for lags in early language and literacy development

→ Poverty

→ Developmental disability

→ Poverty + bilingual

Entering Kindergarteners in Ohio Rural Programs Serving Low-Income Children

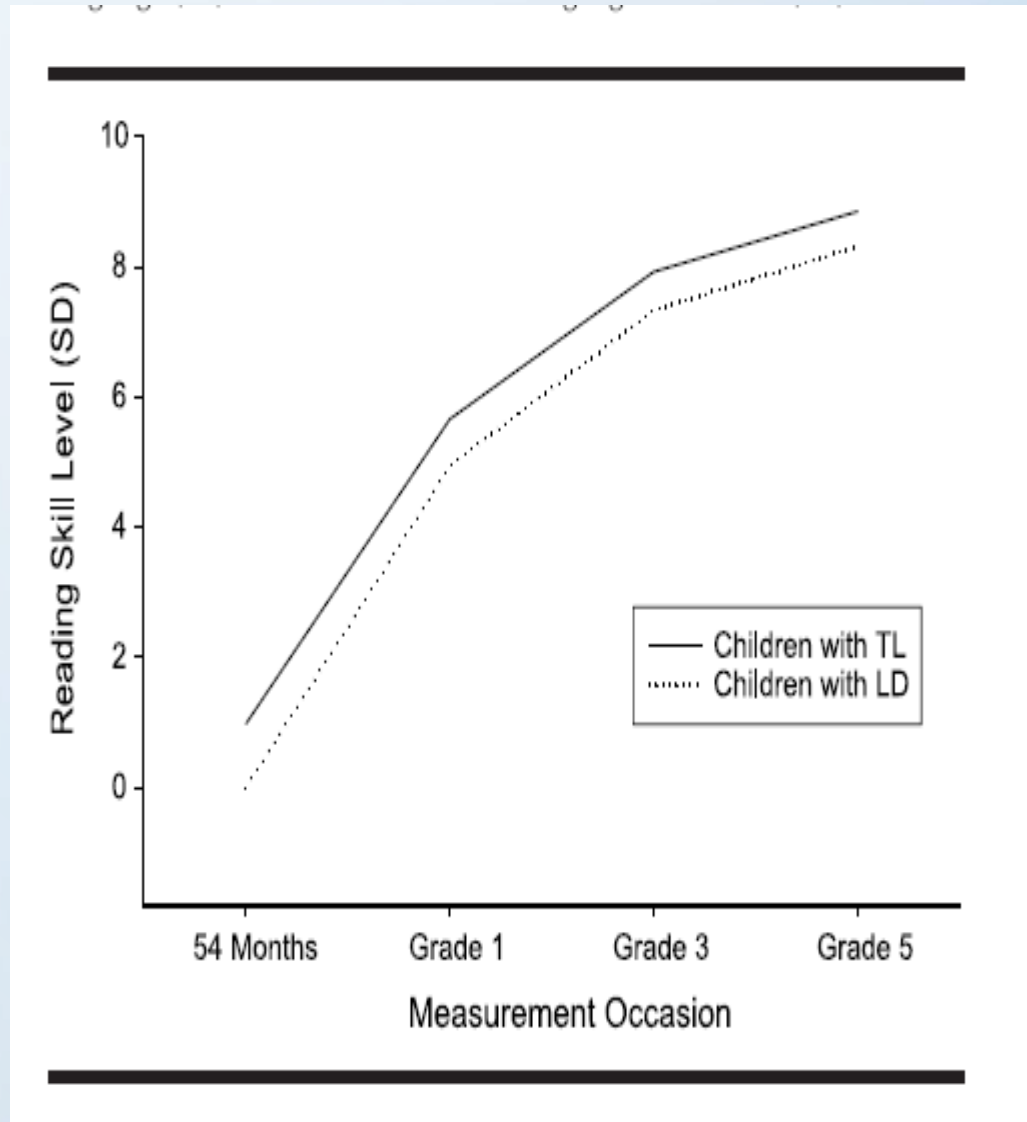


16% global risk
35% academic risk
13% S-B risk
26% ready

Justice et al., 2017)

5 Key Understandings

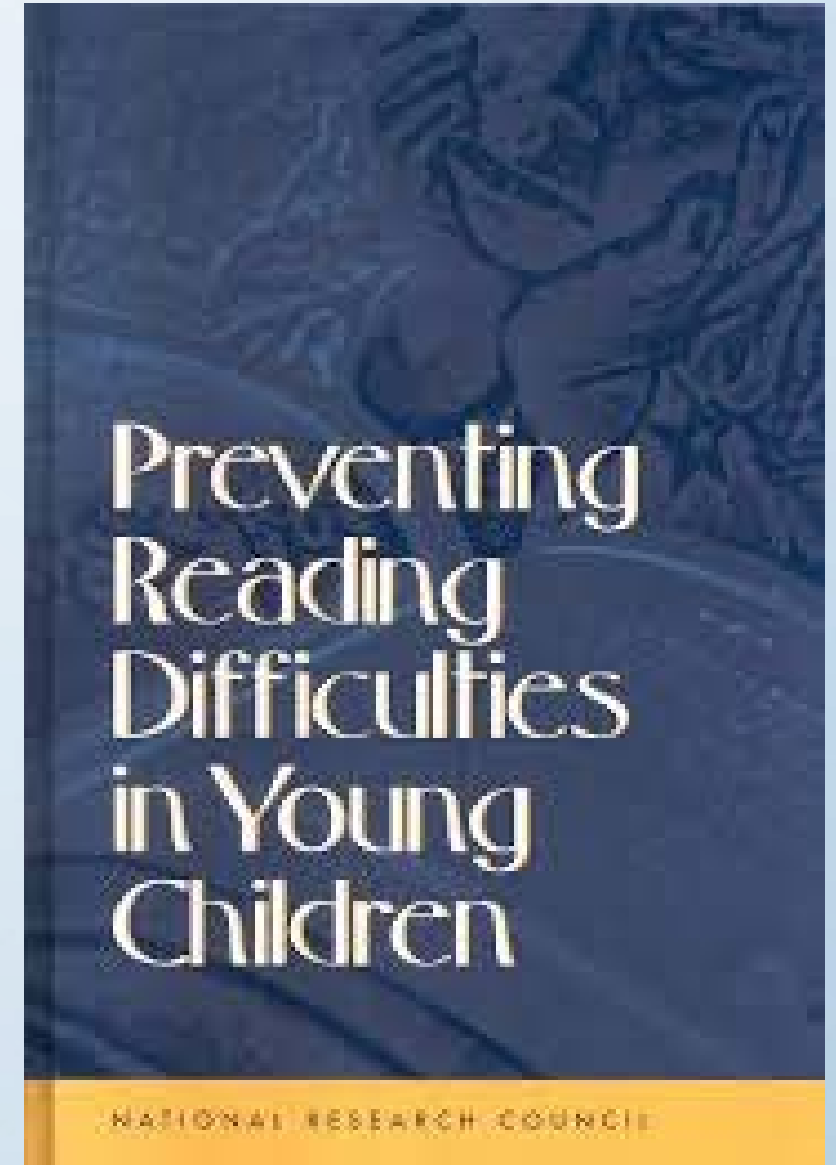
4 Early lags have life-long consequences



5 Foundational Premises

Early childhood education
with explicit literacy
programming can
prevent this cycle of
effects

You Matter!



Continuum of Reading Development



**Emergent
Literacy**



Early Literacy



**Conventional
Literacy**



**Adolescent
Literacy**

THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

LANGUAGE COMPREHENSION

Vocabulary

Grammar

Background knowledge

Inferencing

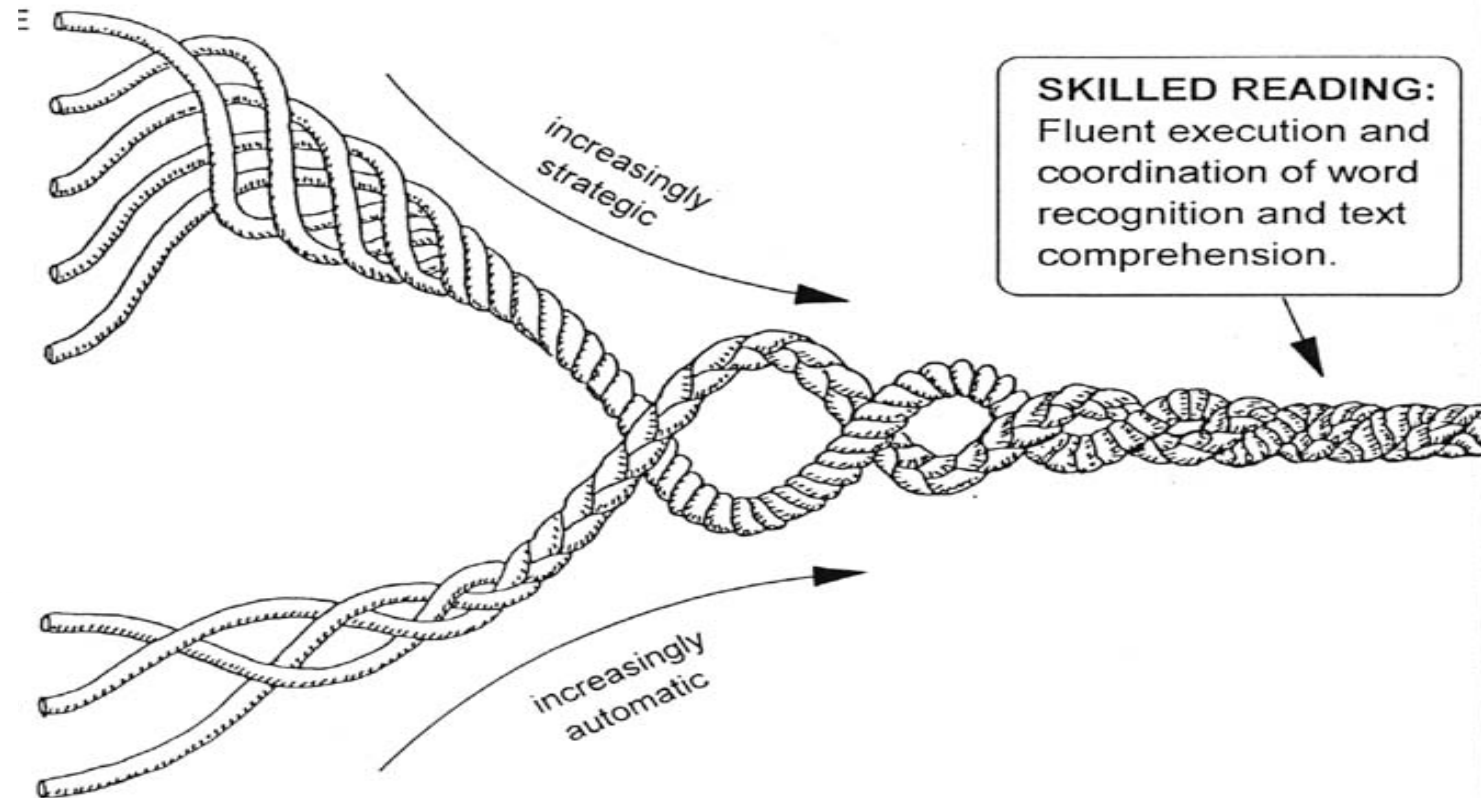
WORD RECOGNITION

Phonological Processing

Print Knowledge

Early writing

Motivation



455 '99

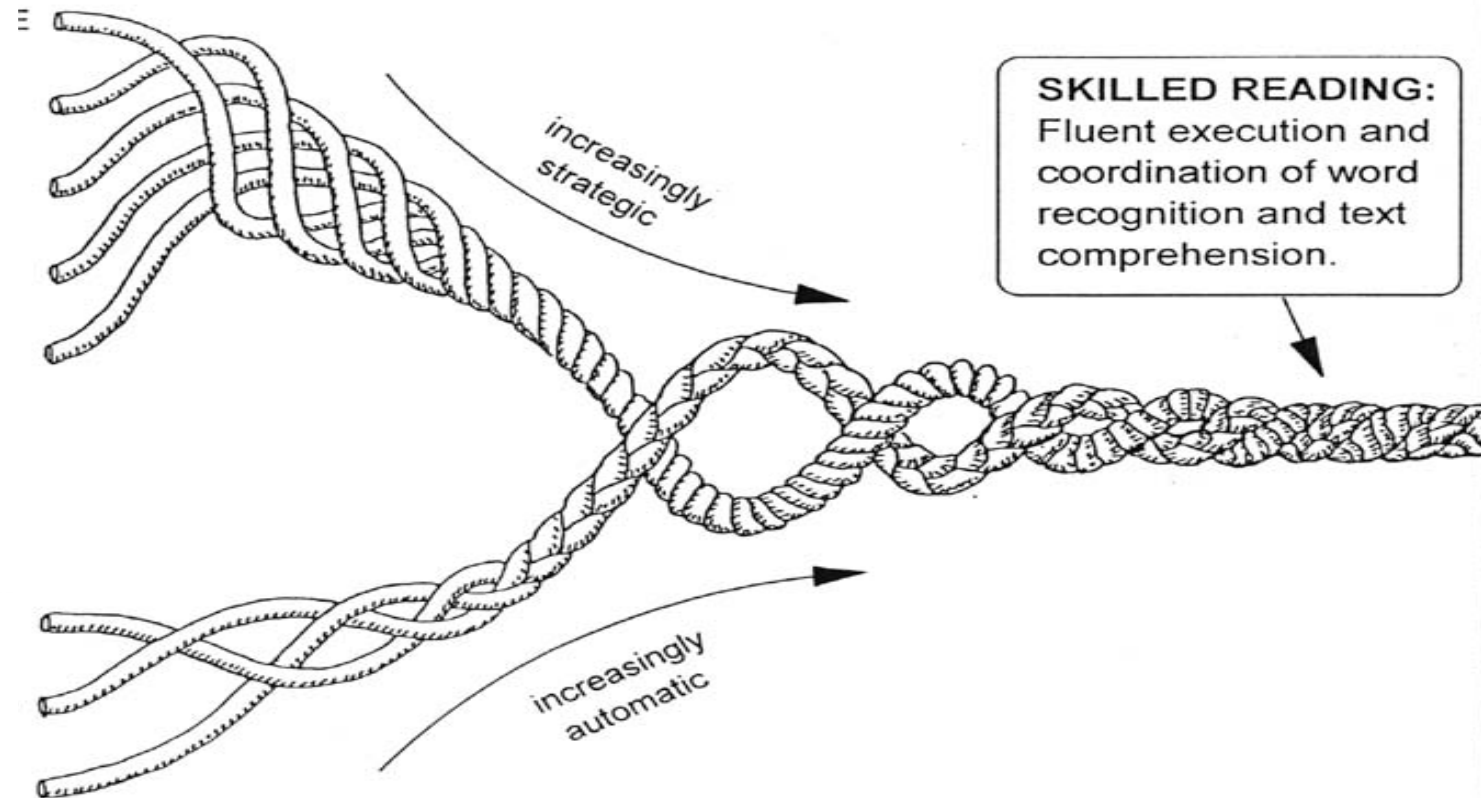
Adapted from Scarborough (2001).

Handbook of Early Literacy Research. New York: Guilford Press.

THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

LANGUAGE COMPREHENSION

Vocabulary



WORD RECOGNITION

Phonological Processing

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Adapted from Scarborough (2001).

Handbook of Early Literacy Research. New York: Guilford Press.

"Simple" View of Reading

D x C



**Important
Precursors:**

Print knowledge

Phonological
processing (PA)

**Important
Precursors:**

Vocabulary

2. In-depth examination of three emergent literacy domains



Phonological processing

Print knowledge

vocabulary



PHONOLOGICAL PROCESSING

In Ohio's literacy plan, is used as a synonym for phonological awareness (PA)

"Simple" View of Reading

D x C



**Important
Precursors:**

Print knowledge

Phonological
processing (PA)

**Important
Precursors:**

Vocabulary

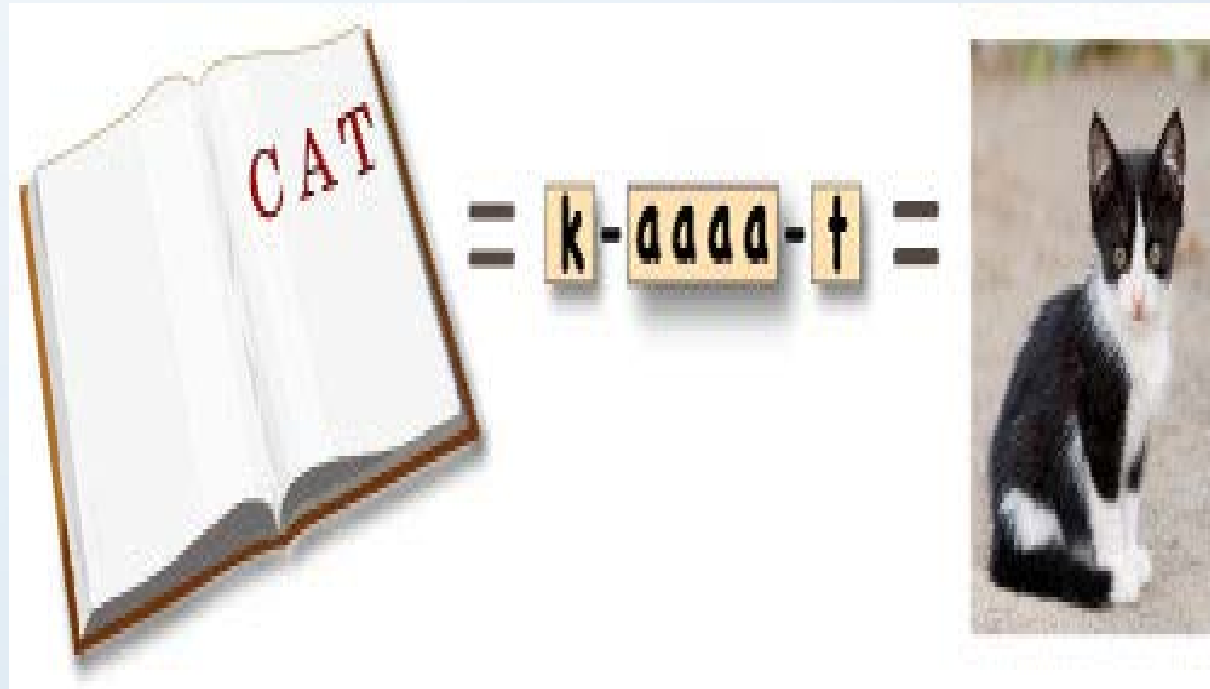
Let's engage in some phonological awareness ...

The Alphabetic Principle

Letter(s)	Sound(s)
M (man)	/m/
Q (quiet)	/kw/
K (kit)	/k/
PH (philosophy)	/f/
GH (rough)	/f/
NG (ring)	/ŋ/

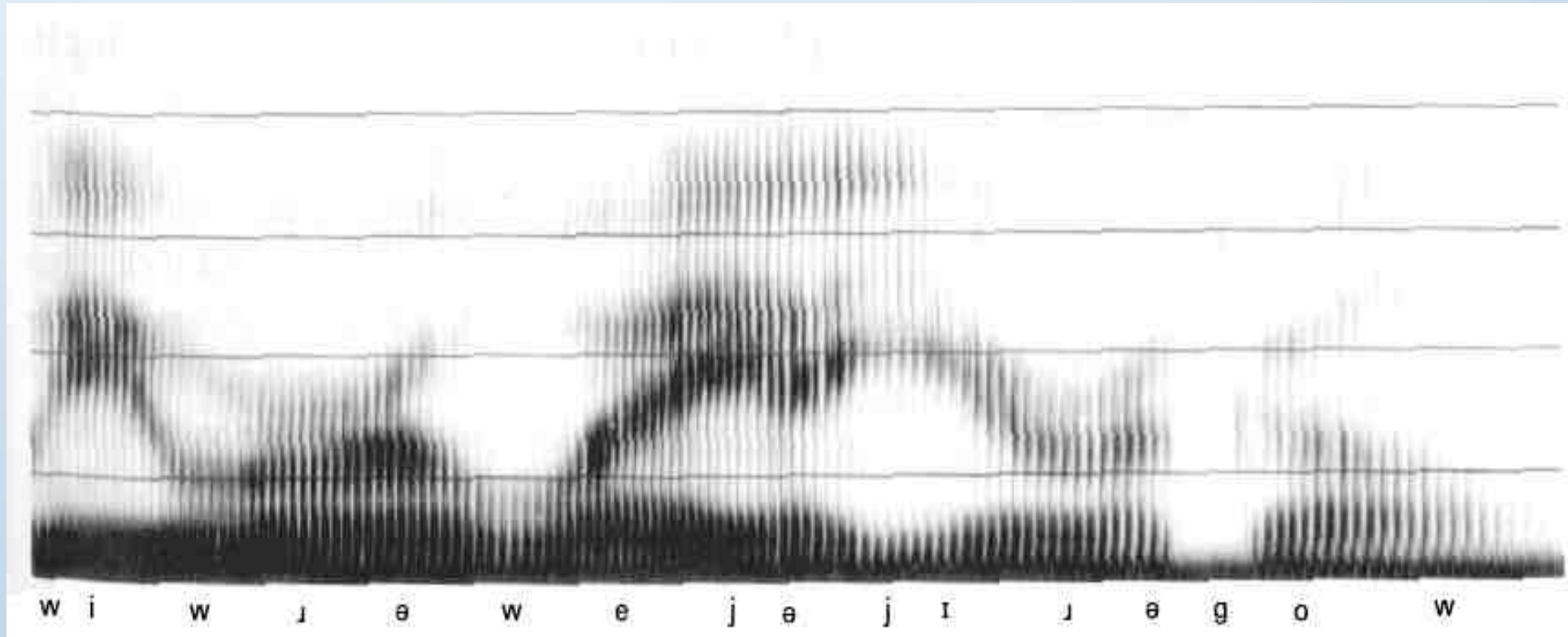
Letters are converted to sounds

Phonological awareness and decoding



Phonological Processing

We process little chunks of sounds (phonemes) which combine into bigger chunks of sound (syllables and words)



Success in reading instruction requires a child to have the ability to attend to the smallest units of sound – the phoneme

Importantly, this can be taught!

Evidence of phonological awareness

- Ability to participate in games/activities that feature:
 - Making up rhymes
 - Breaking words into syllables
 - Matching words that share the same first sound**
- Emergent writing that is not rote memorization

BAC



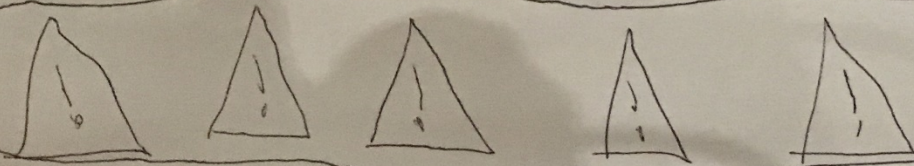
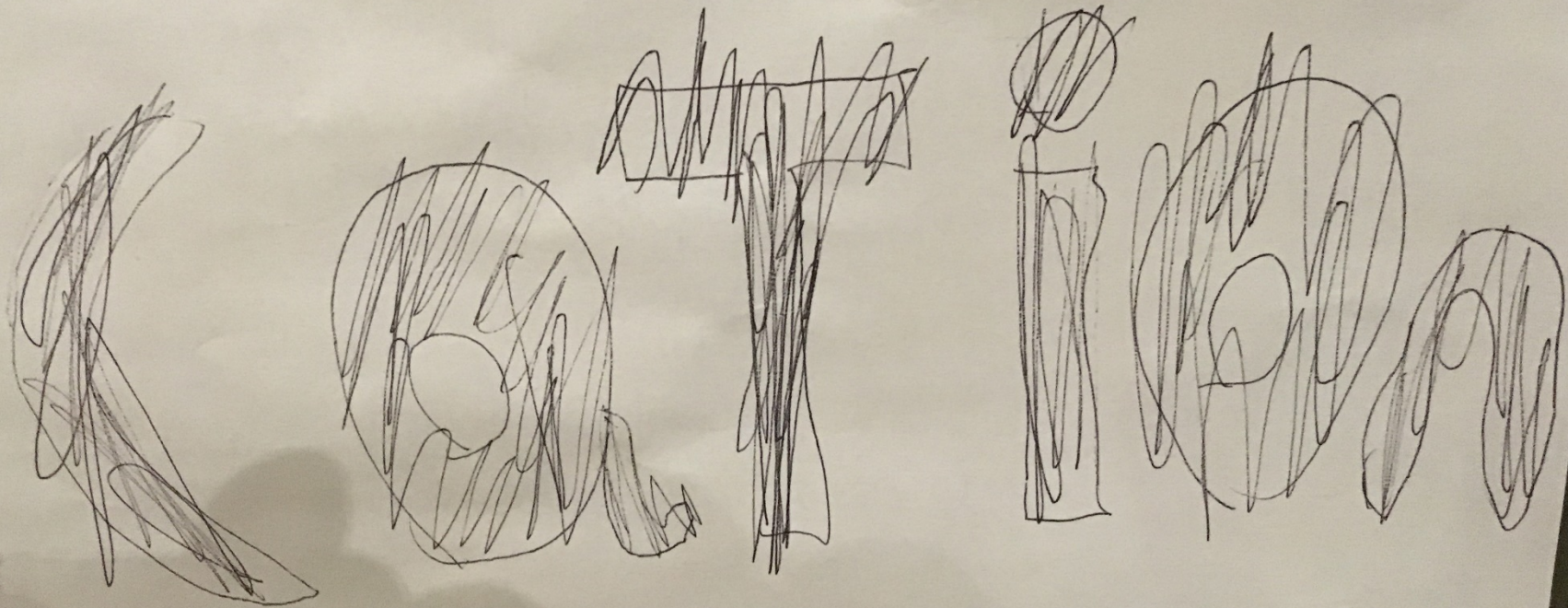
D



SBN



warming

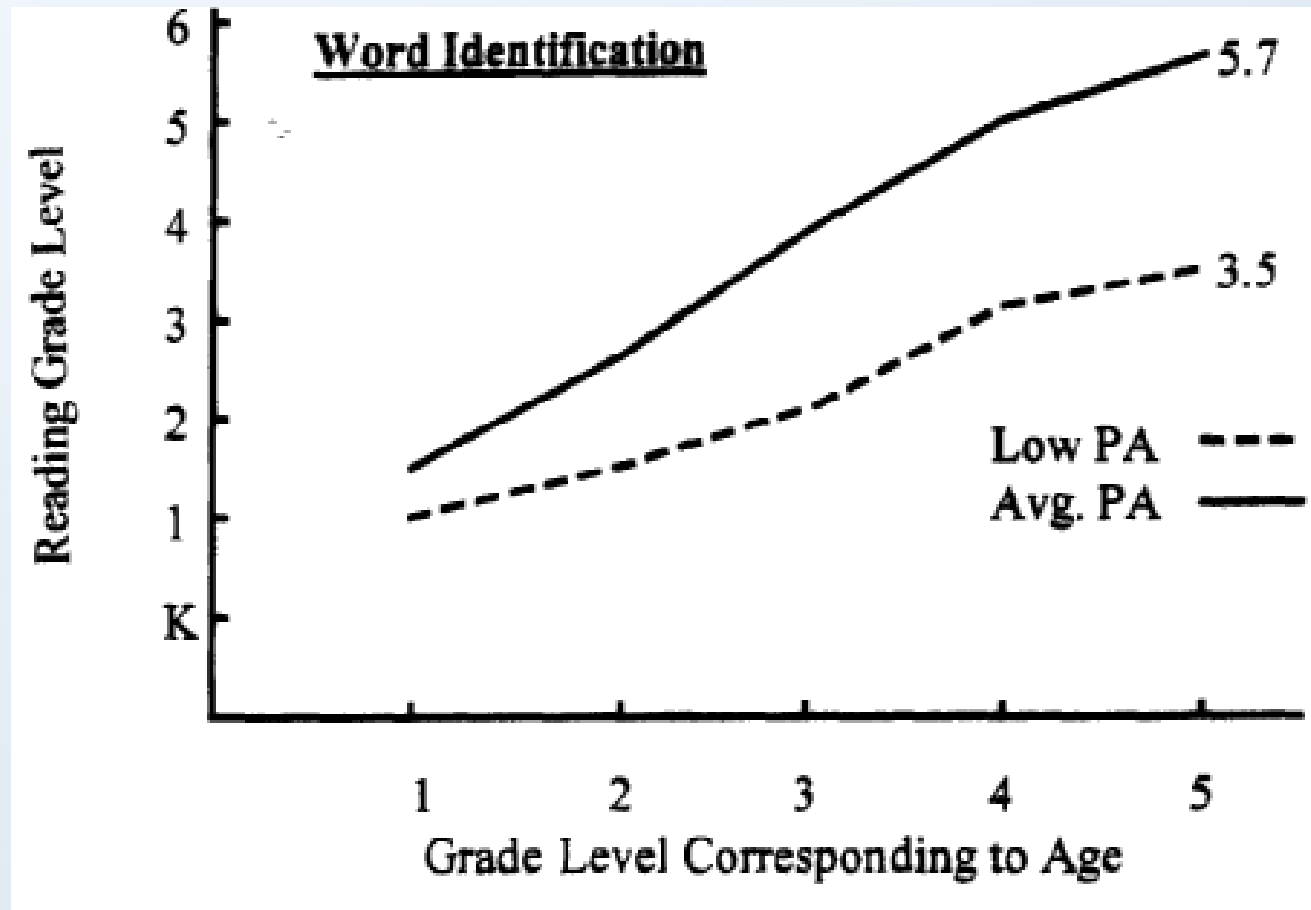


Continuum of development, but not mastery



Phonological Awareness and Reading Achievement

Torgesen and Mathes, 2000



PRINT KNOWLEDGE

"Simple" View of Reading

D x C



**Important
Precursors:**

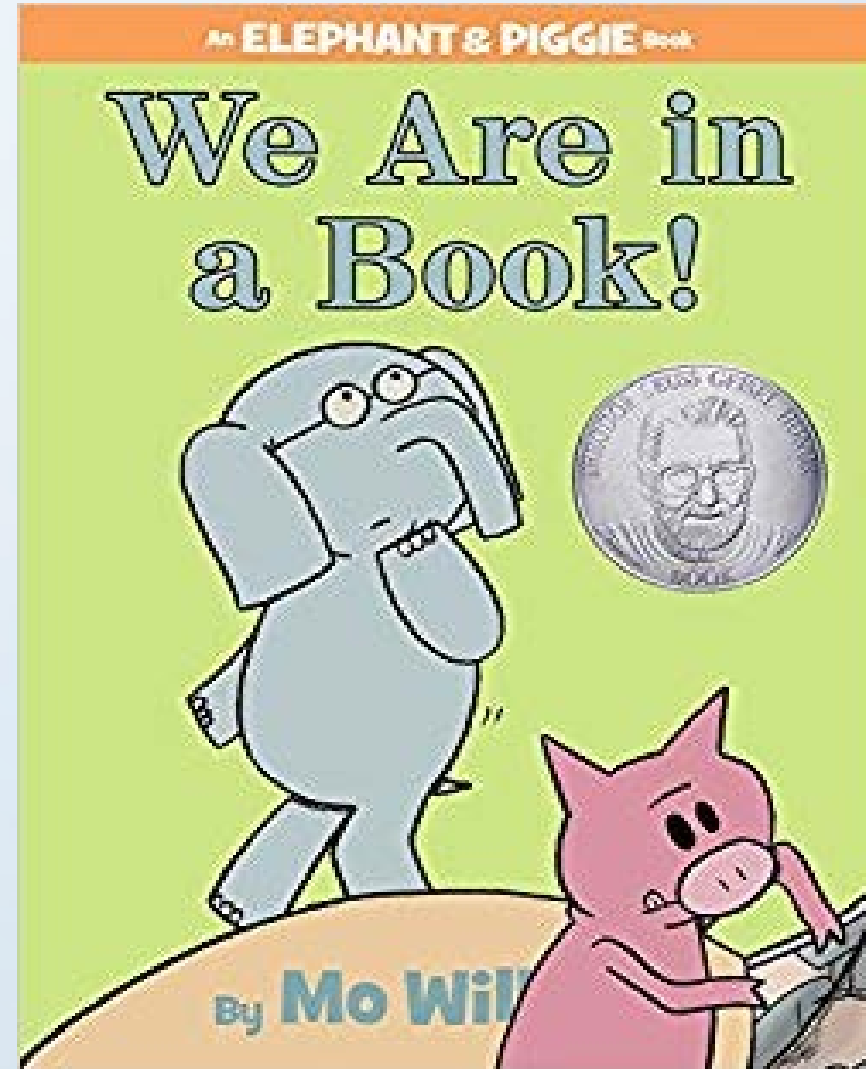
Print knowledge

Phonological
processing (PA)

**Important
Precursors:**

Vocabulary

Let's demonstrate our print knowledge...



Print has a lot of rules!

Dinosaurs

DEINONYCHUS

The name *Deinonychus* means 'terrible claw'. It was a carnivorous dinosaur and was bipedal. It lived in the forests of North America in the middle Cretaceous Period around 100 million years ago. *Deinonychus* was about 4 ft or 1.5 m tall, weighed about 176 lb or 80 kg and measured 10 ft or 3 m from the tip of its nose to the end of its long, rigid tail. It had a large head with powerful jaws and sharp serrated teeth. Large eye sockets indicate it probably also had excellent eyesight.






GORY!
Deinonychus' likely method of attack was to use its powerful back legs to leap into the air and land on its prey, kicking the long sickle toe-claws in, causing significant damage and anchoring it firmly. It would tear and bite at prey to cause as much blood loss as possible.

MILITARY PRECISION!
The dromaeosauridae family all have quite large brains in comparison to their total body size, meaning they were some of the brightest dinosaurs around. This would have allowed them to work together as a team and use simple tactics to guide their prey towards other members of the pack.

TERRIBLE CLAW
Deinonychus' second toe sported a vicious 5 in or 13 cm long claw which is how it got its name. This claw could be held up out of the way whilst the creature was running, only snapping into position when needed for the attack. It was originally thought its long claw was used to slash prey but recent tests have shown that it was more likely used as a stabbing weapon like a knife.

DEADLY!
Fossil evidence shows *Deinonychus* packs hunted and killed *Tenontosaurus*, a dinosaur ten times their size.

SCAN ME
Instructions on page 2



42

43

Some rules young children are acquiring about print:

- Print is a symbolic form that conveys meaning
- Every letter has a name and a look
- Print can be used to express one's self
- Print moves from left to write
- Letters make up words

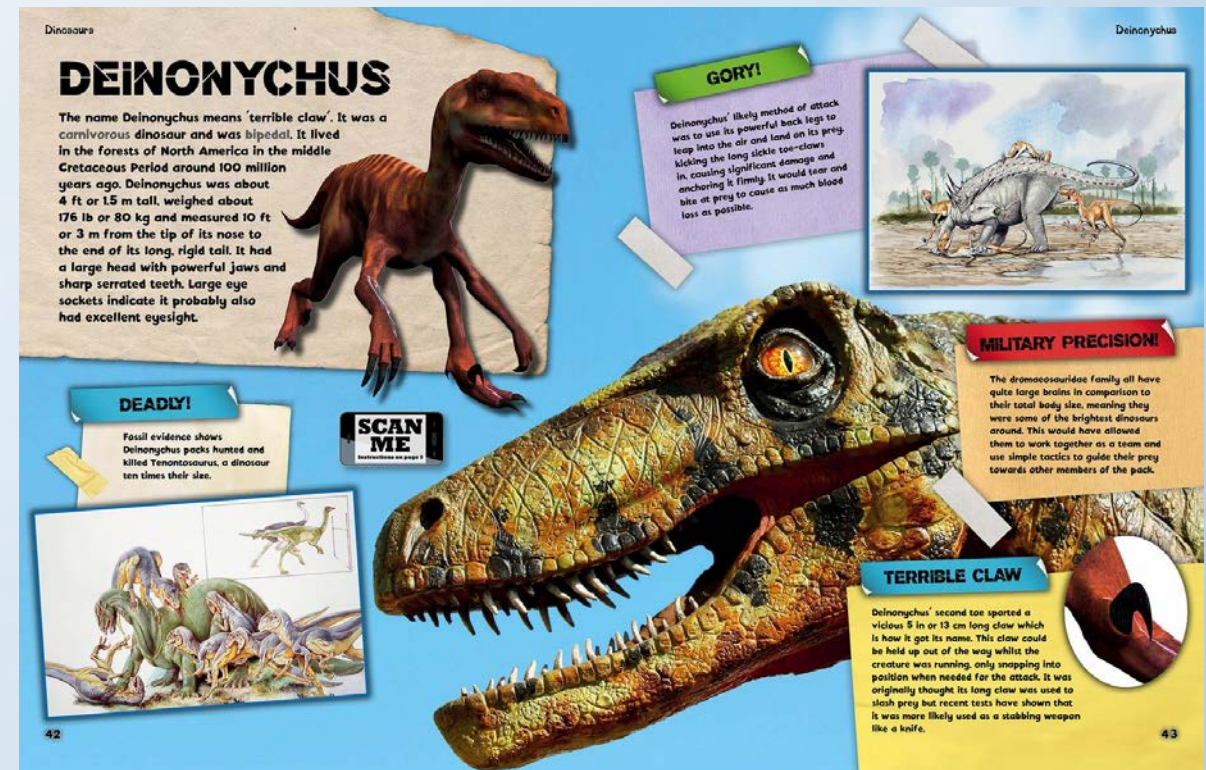
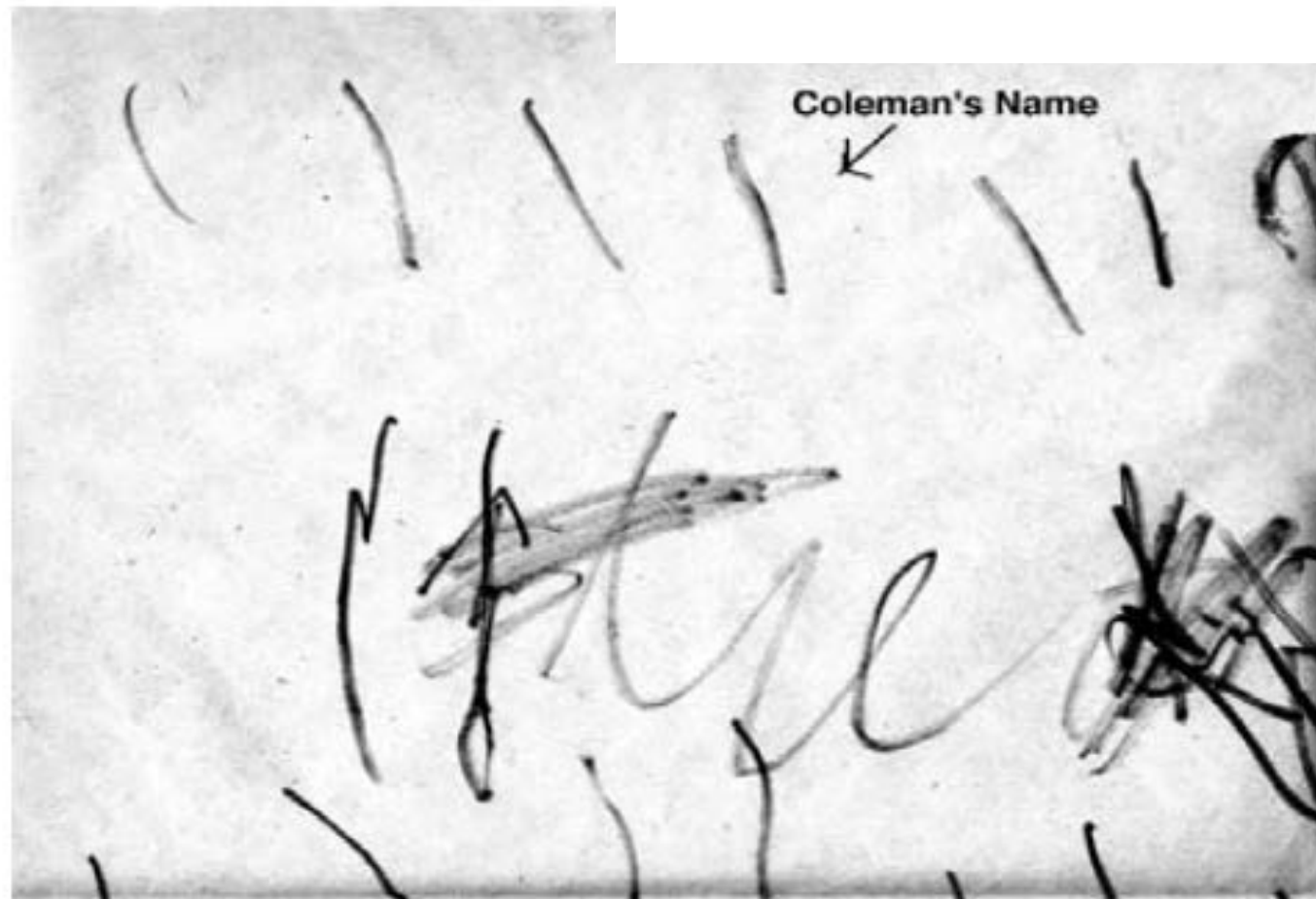


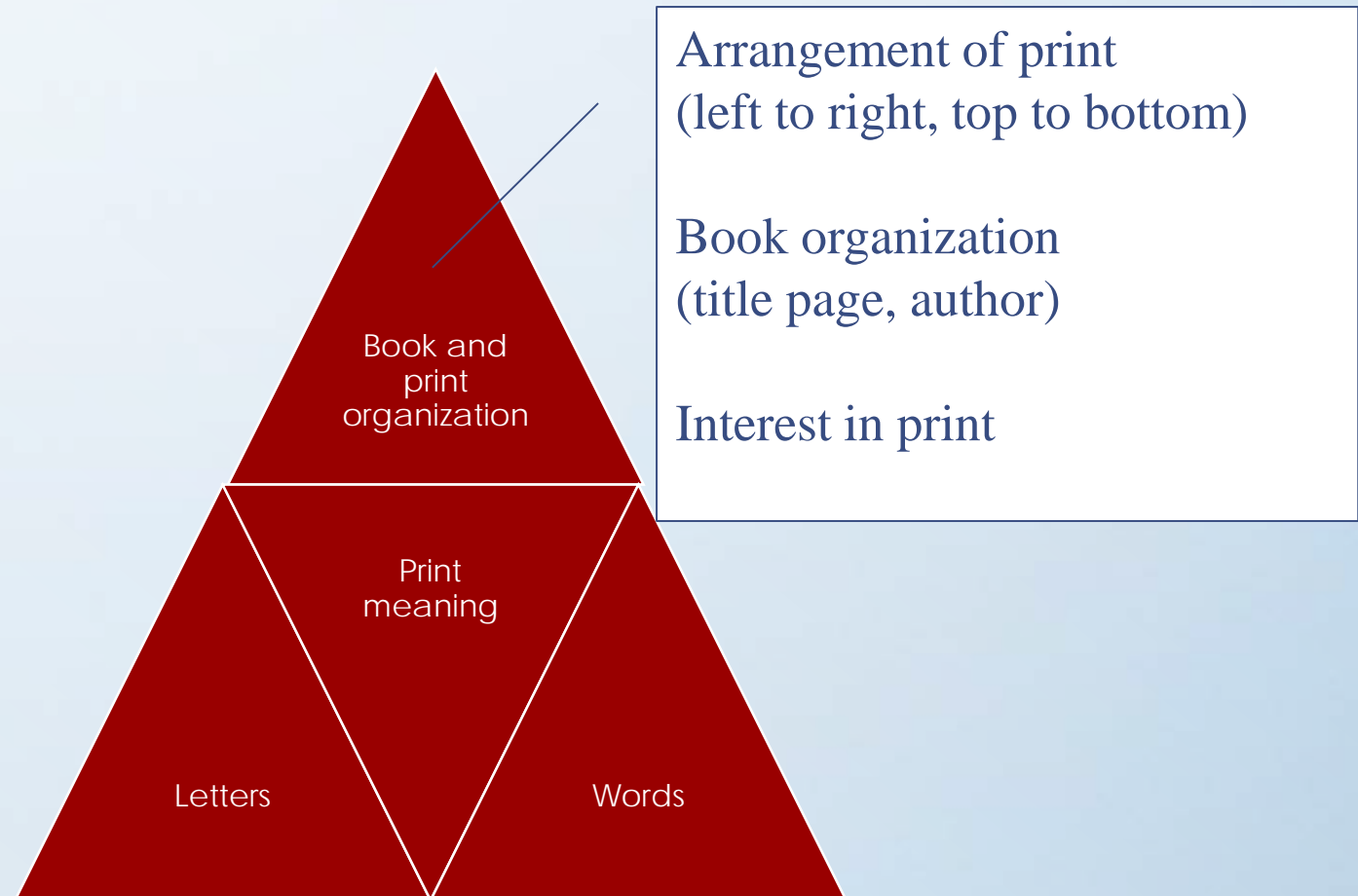
Figure 5. Coleman's Signature (January 11)

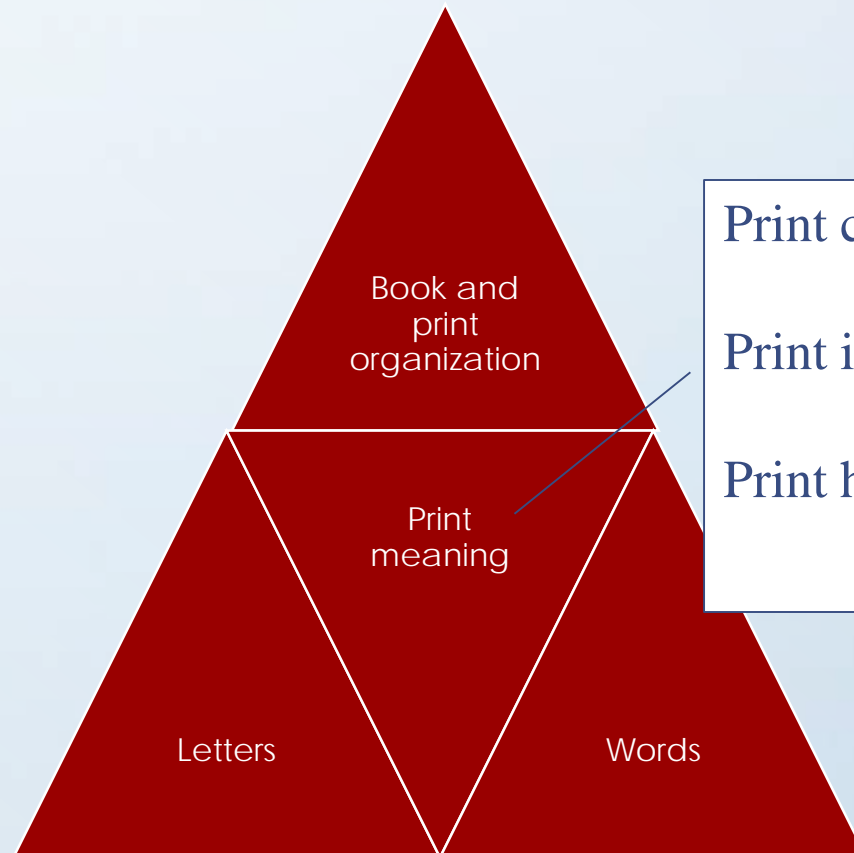


Rowe (2008)



Four Dimensions

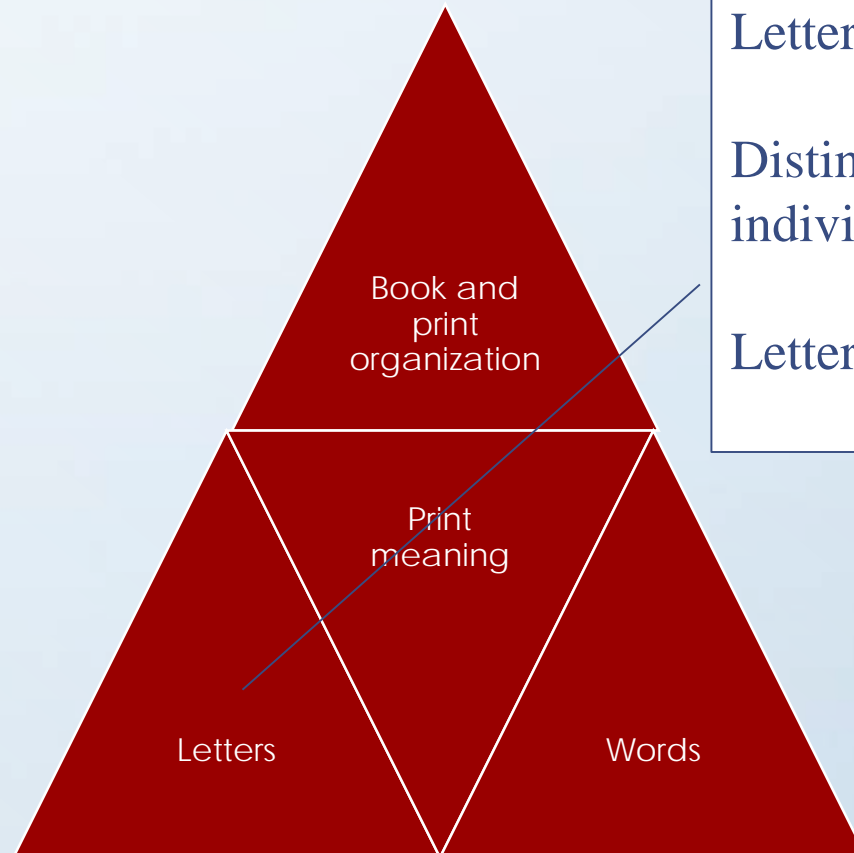




Print carries meaning

Print is different than pictures

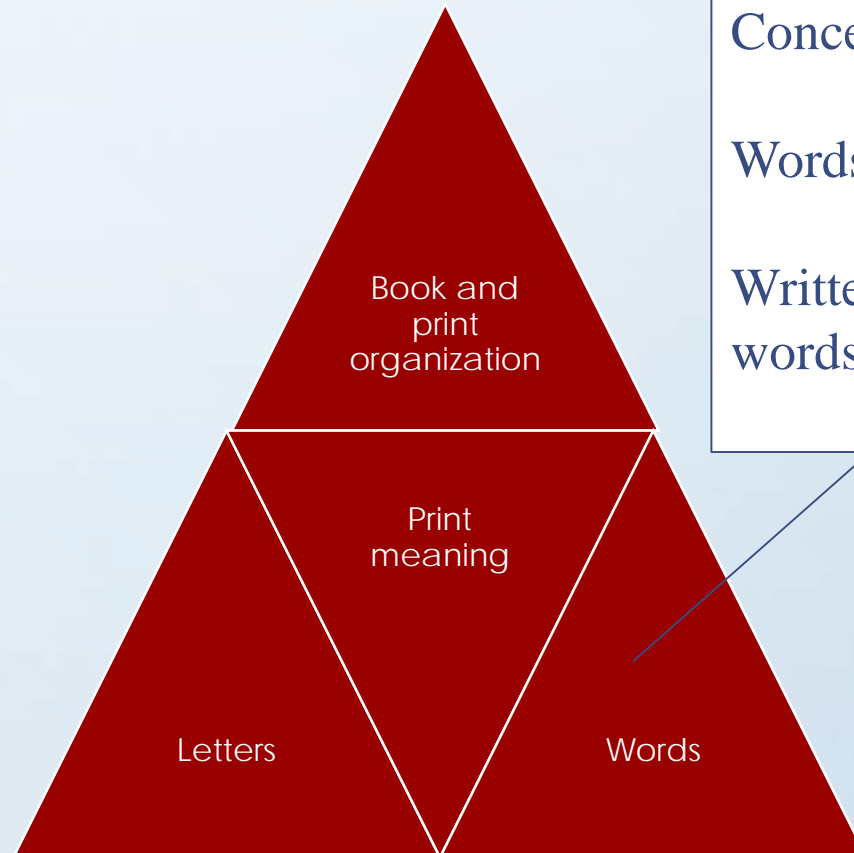
Print has specific rules



Letters make up words

Distinguishing features of individual letters

Letters map to sounds



Concept of word in print

Words are made of letters

Written words map to spoken words

VOCABULARY

"Simple" View of Reading

D x C



**Important
Precursors:**

Print knowledge

Phonological
processing (PA)

**Important
Precursors:**

Vocabulary

Let's show off our vocabulary skills

0 -- I've never heard it before...

1-- I've heard of it but don't know what it means...

2 -- I've heard of it and it has something to do with...

3 – I know it! It means...

babble

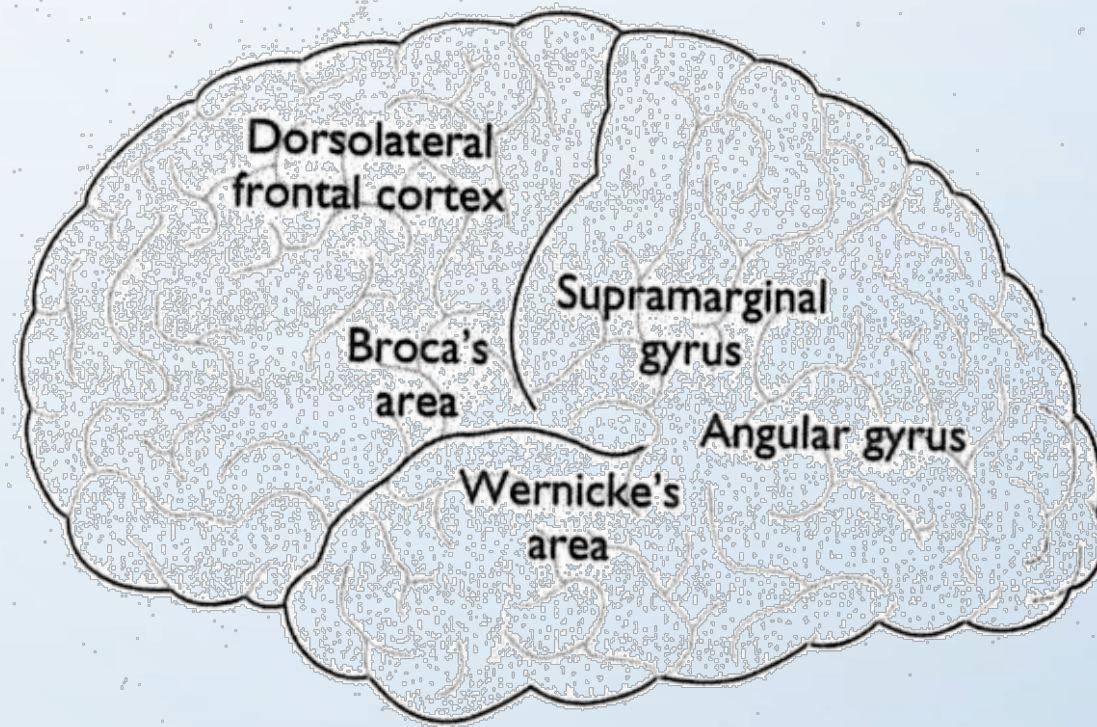
pontificate

cache

puerile

enthusiasm

Vocabulary = the mental dictionary





3 things to know about vocabulary



- From birth to age 7, children learn an average of 7 words per day
- Vocabulary growth is driven by exposure to words – *children are feasting on this input*
- Due to variation in exposure, some 12th graders have vocabularies similar to first graders

Reading and Vocabulary

The Closet Creature

by Kelly Hashway

Bump! Bump! Scratch!

Adam opened his eyes and pulled the covers up to his chin. He stared around his room, searching the darkness for the thing that was making those scary sounds.

The closet door moved as something banged on it from the inside.

"Who's there?" Adam asked in a shaky voice.

The closet slowly began to open. Adam jumped out of bed and ran to the closet door, slamming it shut with his palms. He grabbed his desk chair and propped it against the door handle. Then he ran out of his room and down the hall. His brother's door was wide open, and Adam jumped onto David's bed.

"Adam?" David asked in a groggy voice. "What are you doing in here?"

Adam tugged on David's arm. "There's something in my closet!"

"You probably had a bad dream. Go back to bed."

Adam yanked the blankets off the bed. "It wasn't a dream. I was awake, and the closet door started opening by itself!"

David sighed. "Fine. But when we don't find anything, you have to promise to leave me alone for the rest of the night."



Once children are fluent decoders, reading comprehension is almost completely contingent on one's vocabulary

This vocabulary knowledge must be explicitly fostered from birth onward

Knowing a Word Takes Multiple Exposures

- Shallow Knowledge
 - Fragile state – you don't have it yet!

(incremental)

- Deep Knowledge
 - Non-fragile state – you got it!



Word:
imagine

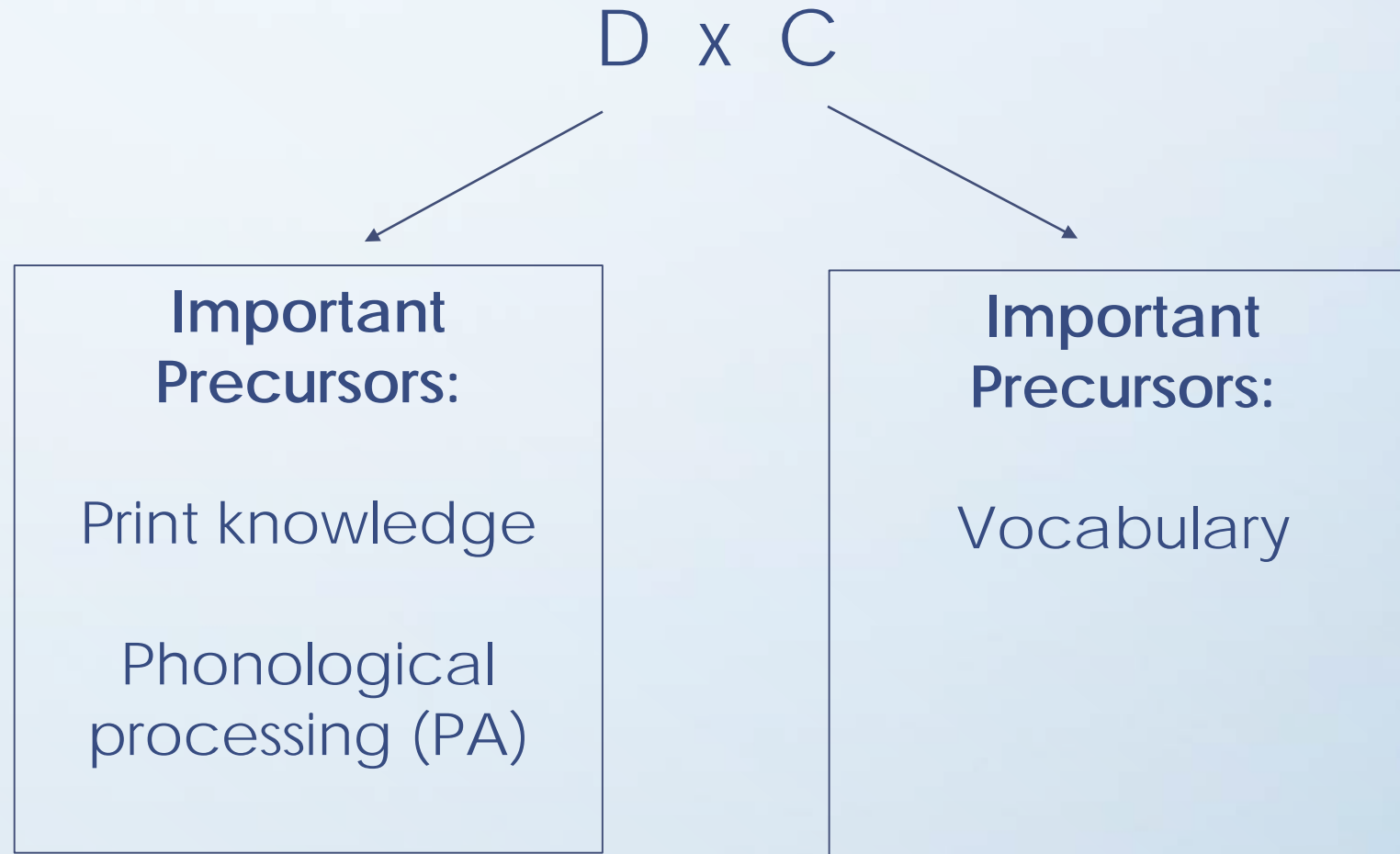
Entering kindergarteners

- Have >2,000 words in their mental dictionary
- Use a variety of words to represent their feelings, interests, and needs
- Use words of all classes – verbs, nouns, adverbs, adjectives, prepositions, etc
- Manipulate word forms for precision (walkinging, didn't, kindness)

Descriptions of several evidence-based practices



"Simple" View of Reading



Best taught using a combination of **direct** and **incidental** instructional approaches but always be **explicit**

Direct:

Pre-planned
(e.g., circle time lesson)

Incidental:

Seize the moment
(e.g., lunch discussion)

EXPLICIT INSTRUCTION: BE CLEAR IN WHAT YOU WANT
CHILDREN TO LEARN

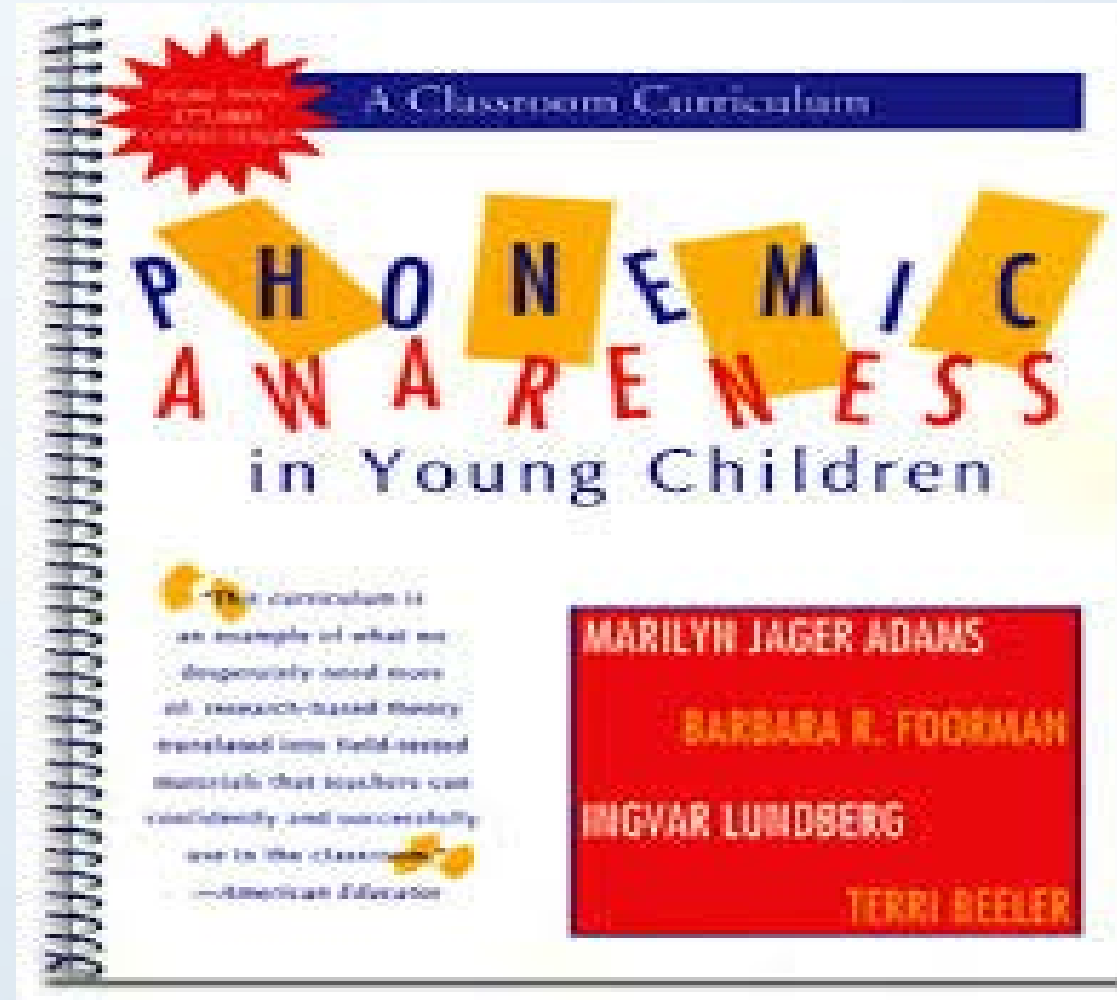
Using evidence to create effective emergent-literacy instruction

- ESSA TIERS:
 - Tier 1: Strong Evidence – well-executed experimental study
 - Tier 2: Moderate Evidence – well-executed quasi-experimental study
 - Tier 3: Promising Evidence
 - Tier 4: Demonstrates a Rationale
- I share **example interventions** that *in my opinion* meet Tier 1&2 standards

Phonological Awareness

- **Direct phonological awareness training** as a modest curriculum supplement
 - Typically involves small- or large-group teacher-lead activities several times weekly
 - Doesn't need to be intensive to be effective
 - Not a single developer or program; multiple examples in literature
 - Considered effective **only** for phonological awareness
 - Five studies in the WWC 'meet evidence standards'

Phonological Awareness- Evidence



Phonological Awareness

- Example of a well-executed experimental study (Tier 1 evidence)
 - 152 children in UK, avg age < 5 years)
 - Daily short PA activities (about 5 minutes) + letter-sound work and shared readings
 - Significantly outperformed comparison group on a measure of segmentation and blending

THE JOURNAL OF
CHILD PSYCHOLOGY AND PSYCHIATRY

Journal of Child Psychology and Psychiatry 49:4 (2008), pp 422–432

doi:10.1111/j.1469-7610.2007.01849.x

ACAMH

Improving early language and literacy skills: differential effects of an oral language versus a phonology with reading intervention

Claudine Bowyer-Crane,¹ Margaret J. Snowling,¹ Fiona J. Duff,¹ Elizabeth Fieldsend,¹ Julia M. Carroll,² Jeremy Miles,³ Kristina Götz¹ and Charles Hulme¹

¹Department of Psychology, University of York; ²Department of Psychology, University of Warwick; ³Department of Health Sciences, University of York

Background: This study compares the efficacy of two school-based intervention programmes (Phonology with Reading (P + R) and Oral Language (OL)) for children with poor oral language at school entry. **Methods:** Following screening of 960 children, 152 children (mean age 4;09) were selected from 19 schools on the basis of poor vocabulary and verbal reasoning skills and randomly allocated to either the P + R programme or the OL programme. Both groups of children received 20 weeks of daily intervention alternating between small group and individual sessions, delivered by trained teaching assistants. Children in the P + R group received training in letter-sound knowledge, phonological awareness and book level reading skills. Children in the OL group received instruction in vocabulary, comprehension, inference generation and narrative skills. The children's progress was monitored at four time points: pre-, mid- and post-intervention, and after a 5-month delay, using measures of literacy, language and phonological awareness. **Results:** The data are clustered (children within schools) and robust confidence intervals are reported. At the end of the 20-week intervention programme, children in the P + R group showed an advantage over the OL group on literacy and phonological measures, while children in the OL group showed an advantage over the P + R group on measures of vocabulary and grammatical skills. These gains were maintained over a 5-month period. **Conclusions:** Intervention programmes designed to develop oral language skills can be delivered successfully by trained teaching assistants to children at school entry. Training using P + R fostered decoding ability whereas the OL programme improved vocabulary and grammatical skills that are foundations for reading comprehension. However, at the end of the intervention, more than 50% of at-risk children remain in need of literacy support. **Keywords:** Early intervention, oral language, phonological awareness, early literacy, RCT.

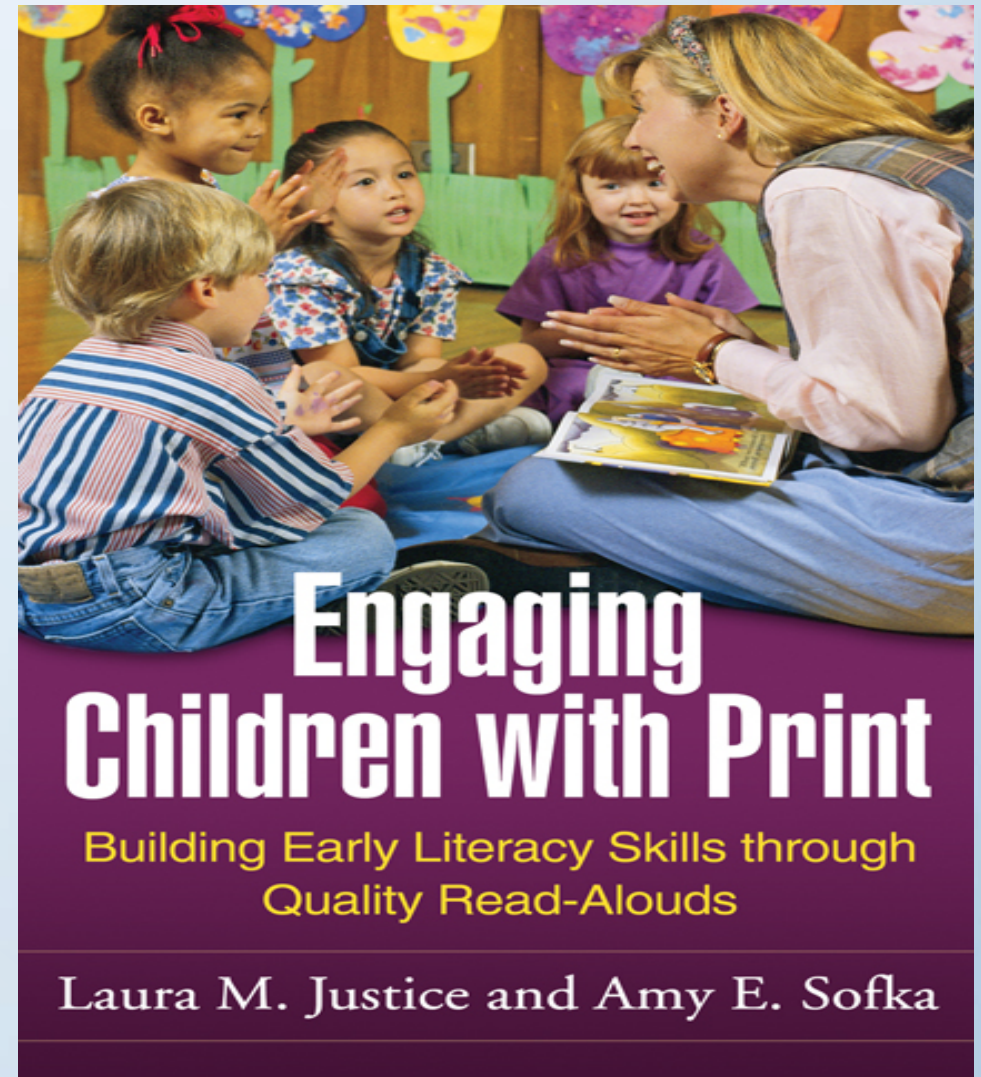
Print Knowledge

- Engaging children in explicit print-related discussions during book reading ('Sit Together and Read')
 - Teachers read regularly to class as a whole group
 - Books are "print-rich selections"
 - Teachers embed explicit discussions about print into these read-alouds
 - Print-focused discussions follow a scope and sequence
- Studied extensively in well-executed experimental studies, and all materials available freely online (<http://star.ehe.osu.edu/>)

Print Knowledge - Evidence

STAR-1: Multi-site (OH, VA) study of STAR in early childhood education classrooms, with follow-up to first grade

STAR-2: Multi-site (multiple districts in Ohio) study of STAR in early childhood special education classrooms, with follow-up to kindergarten



Print Knowledge

- Example of a well-executed experimental study (Tier 1 evidence)
 - 319 preschoolers with disabilities enrolled in 83 ECSE classrooms in multiple districts across Ohio
 - Whole class read-alouds 4 x per week with a print focus
 - Significantly outperformed comparison group on a composite measure of print knowledge
 - Effects sustained through kindergarten

Print-Focused Read-Alouds in Early Childhood Special Education Programs

Exceptional Children
2015, Vol. 81(3) 292–311
© 2015 The Author(s)
DOI: 10.1177/0014402914563693
ec.sagepub.com



Laura M. Justice¹, Jessica A. R. Logan¹,
Joan N. Kaderavek², and Jaclyn M. Dynia¹

Abstract

The purpose of this study was to examine the impacts of print-focused read-alouds, implemented by early childhood special education (ECSE) teachers alone or in conjunction with caregivers, on the print knowledge of children with language impairment (LI). Using random assignment to conditions, children with LI were exposed, over an academic year of preschool, to one of three conditions specifying the way in which teachers and caregivers were to read storybooks with them. Based on a print-knowledge composite, children whose teachers used print-focused read-alouds had significantly better print knowledge ($d = .21$) in spring of the year compared to children whose teachers used their typical reading practices. When teachers and caregivers implemented print-focused read-alouds simultaneously, children's Spring print knowledge was modestly higher ($d = .11$) than that of children whose teachers and parents used their typical reading practices, but the effect was not statistically significant. Examination of intervention moderators showed that children with lower levels of nonverbal cognition benefited substantially from exposure to the intervention. Educational implications are discussed.

Vocabulary - Evidence

- **Oral language strategies** embedded across multiple classroom activities, including theme-based prop boxes
 - ***Practicing and promoting active listening***: listen to what children say attentively, respond in a meaningful way
 - ***Modeling rich language***: expand use of rich vocabulary, provide elaborate explanations and descriptions of common activities and events
 - ***Providing feedback***: use informative talk to describe what children are doing; ask open-ended questions; use recasts and expansions

Vocabulary

- Example of a well-executed experimental study (Tier 1 evidence)
 - 207 preschoolers in 16 Head Start classrooms
 - Extensive professional development in fall of the year and 2-hr group trainings monthly
 - Use of strategies monitored over the year with checklists
 - Significant effects on standardized measures of vocabulary

The Effects of a Language and Literacy Intervention on Head Start Children and Teachers

Barbara A. Wasik and Mary Alice Bond
Johns Hopkins University

Annemarie Hindman
University of Michigan

A language and literacy intervention was implemented in 10 Head Start classrooms. Teachers were trained in specific book reading and conversation strategies. The focus of the intervention was to train teachers how to increase opportunities for language and vocabulary development in young children. At the end of the year, children in the intervention classrooms performed significantly better than children in the control classrooms on the Peabody Picture Vocabulary Test—III and the Expressive One-Word Vocabulary Test (3rd ed.). In addition, teachers in the intervention classrooms used strategies that promoted language development during book reading and other classroom activities. Head Start teachers can be trained to implement strategies that have positive effects on children's language and literacy development.

Keywords: language, literacy, intervention, Head Start, vocabulary

In the past 15 years, increased attention has been paid to the preschool years as a critical time for developing skills that are needed to succeed in school. Three recent National Research Council reports—*Eager to Learn: Educating Our Preschoolers* (Bowman, Donovan, & Burns, 2000), *From Neurons to Neighborhoods: The Science of Early Childhood Development* (Shonkoff & Phillips, 2000), and *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998)—have documented the significance of early experiences on later development and the effects that these experiences have on school achievement. The research summarized in these reports and documented in the scientific literature consistently shows that language and preliteracy development has a profound effect on young children's successful transition to school and, in particular, on their success in learning to read (Dickinson & Tabors, 2001; Whitehurst & Lonigan, 2001). Children who arrive in first grade with a foundation in

word knowledge, expressive and receptive vocabulary, knowledge of syntax, and conceptual knowledge (Vellutino, Scanlon, & Spearing, 1995; Vellutino, Scanlon, & Tanzman, 1991). Researchers have clearly documented the importance of code-related skills in learning to read (Beck & Juel, 1999; Stanovich & Siegel, 1994). Although there has been some controversy over the exact nature of the relationship between oral language and literacy development (Bryant, MacLean, & Bradley, 1990; Roth, Speece, Cooper, & de la Paz, 1996; Speece, Roth, Cooper, & de la Paz, 1999), there is strong evidence indicating that oral language plays a critical role in laying the foundation for literacy skills (Catts, Fey, Zhang, & Tomblin, 1999; Chaney, 1998; Metsala, 1999) and that the contributions that code-related skills and oral language make to learning to read can vary at different points in development (Whitehurst & Lonigan, 1998). Data from longitudinal studies indicate that oral language is an essential precursor to learning to read (Dickinson &

Thank you!



CRANE CENTER FOR EARLY CHILDHOOD RESEARCH AND POLICY

The **Crane Center for Early Childhood Research and Policy**, located in the Schoenbaum Family Center in Weinland Park, is a multidisciplinary research center dedicated to conducting high-quality research that improves children's learning and development at home, in school, and in the community. We partner with the **A. Sophie Rogers School for Early Learning** to provide effective, research-based curriculum that focuses on language and literacy development and building essential social skills. We also work with a network of **community partners** to provide early childhood programming and family engagement. Our offerings help researchers, practitioners and families enhance their skills to support young children through workshops, seminars and professional development opportunities related to children's well-being.