Setting the Groundwork: The Cohesive Ties of Early Literacy

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Disclosure: Rebecca Talsen, Lisa Lenhart and Vicki Kmac have no relevant financial or nonfinancial relationships to disclose.

Oral Language Comprehension

What is it?

The ability to speak & listen with understanding. Includes grammar, word meanings & listening comprehension.

Why is it important?

Provides the language foundation for learning to read and write.
Oral Language
(Bishop & Adams, 1990; Wagner et al., 1997)
- There are strong correlations and longitudinal continuity between oral language and later reading differences.
- Oral language and reading comprehension are strongly correlated.
- Some research shows that vocabulary skills impact on decoding skills.

Oral Language Development
- Critical skills that allow children to:
  - communicate
  - understand words and concepts they hear
  - acquire new information
  - express their own thoughts
Stage 1: Cooing
- Starts at birth
- Sounds and gestures
- Sounds resemble vowel sounds

Stage 2: Babbling
- Repeated consonant vowel sounds
- Begins around 4-6 months
- Becomes more complex at 8-10 months
  - Begins to vary in pitch and rhythm
Stage 3: One Word State

- One word Units=Idiomorphs
- Begins around 1 year
- Can be made-up words
- Understand a unit of language conveys meaning
- Significant milestone

Stage 4: Telegraphic Stage

- Toddlers
- String several words together
- Utterances or short sentence-like segments
- Content only
- More complex
Stage 5: Beginning Oral Fluency

- Ages 3-4
- Fluent in language used at home
- Use language to question, respond and express
- Use abstract language

Reading Development

- Reading is a developmental process
- All children do not learn to read at the same age
Stage 1: Awareness & Exploration
- Starts at birth
- Goes through preschool years
- Children are curious about print

Stage 2: Experimental Reading & Writing
- 4-5 years old
- Understand basic COP
- Continue to recognize letters & letter-sound relationships
- Begin to write letters & high frequency words
- Rhyming
Stage 3: Early Reading & Writing

- Around first grade
- Can read simple stories
- Increasing knowledge of letter-sound
- Sight words
- Can write about meaningful topics

![Image with text 'I like pizza']

Stage 4: Transitional

- 2nd Grade
- Using cognitive strategies
- Using Word ID strategies
- More conventional spelling

![Image with text 'My Weekend']
Stage 5: Independent & Productive

- 3rd Grade
- Lifelong process of independence & sophistication
- Purpose & audience

What about children who are not developing at the expected rate?

- To avoid the “wait and see” approach assessment is critical.
  - Why assess?
  - How should we assess?
  - What do we assess?
ASSESSMENT CONNECTIONS

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THE "WAIT AND SEE" APPROACH

THE DEVELOPMENT OF EARLY LITERACY SKILLS IS TOO IMPORTANT
ASSESSMENT
IS A PROCESS
NOT AN EVENT

• COLLECT
• DOCUMENT
• SYNTHESIZE
• OBSERVE
• INTERPRET
PURPOSES

• WHAT DO THEY KNOW?
• WHAT DO THEY NEED TO LEARN?
• WHAT TYPE OF PROGRAM AND INSTRUCTION?

• IS THE PROGRAM AND INSTRUCTION EFFECTIVE?
• COMMUNICATION?
• DOES STAFF NEED PROFESSIONAL DEVELOPMENT?

NATIONAL INSTITUTE FOR EARLY EDUCATION RESEARCH

• RELIABLE, VALID AND APPROPRIATE MEASURES FOR CHILDREN
• A SYSTEM OF ANALYSIS
  • OBSERVATIONS
  • PORTFOLIOS
  • TEACHER/PARENT RATINGS

• DATA-BASED DECISIONS
  • COGNITIVE
  • COMMUNICATION
  • EMOTIONAL
  • SOCIAL
  • CULTURAL
  • PHYSICAL

NIEER, Strickland & Riley-Ayers, 2006
EARLY IDENTIFICATION OF DIFFICULTIES

• RATINGS OF EARLY LANGUAGE MILESTONES IN CHILDREN BIRTH TO 2 YEARS PREDICT LATER READING ACHIEVEMENT BETTER THAN DO PERCEPTUAL-MOTOR MEASURES

• PRESCHOOL LANGUAGE ABILITIES PREDICT SCHOOL-AGE OUTCOMES AND SUBSEQUENT ACHIEVEMENT

Scarborough, 2002, p. 101

EARLY IDENTIFICATION OF DIFFICULTIES

• VERBAL SKILLS ARE GOOD PREDICTORS OF KINDERGARTEN-AGE DIFFERENCES IN PHONOLOGICAL AWARENESS, LETTER KNOWLEDGE, PRINT CONCEPTS AND OTHER RELEVANT SKILLS

• AT THE YOUNGEST AGES, SYNTACTIC AND SPEECH PRODUCTION ABILITIES ARE MORE PREDICTIVE OF ACADEMIC OUTCOMES, WHILE LATER IN PRESCHOOL, VOCABULARY AND PHONOLOGICAL AWARENESS ARE MORE PREDICTIVE

Scarborough, 2002, p. 101
EARLY IDENTIFICATION OF DIFFICULTIES

- Children with a family history of reading disability remain at high risk for developing reading problems at a later age.

- Some children with early language deficits do not develop reading disabilities, and some children with reading disabilities do not display early language deficits.

Scarborough, 2002, p. 101

PREDICTORS OF LATER LITERACY DIFFICULTIES

<table>
<thead>
<tr>
<th>Age</th>
<th>Difficulty Indicator</th>
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<tbody>
<tr>
<td>2 ½ years</td>
<td>- Produces only short, simple sentences</td>
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<tr>
<td></td>
<td>- Has less accurate word production</td>
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<tr>
<td>3 years</td>
<td>- Displays receptive language problems</td>
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<tr>
<td></td>
<td>- Has difficulty naming items, objects, people</td>
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<td></td>
<td>- May have phonological pattern problems (e.g., faulty pronunciation of words)</td>
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<tr>
<td>4 years</td>
<td>- May not know the boundaries between words</td>
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<tr>
<td></td>
<td>- Has problems differentiating similar-sounding words</td>
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<tr>
<td></td>
<td>- Has problems distinguishing and producing complex words</td>
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<tr>
<td>5 years</td>
<td>- Poor word recall</td>
</tr>
<tr>
<td></td>
<td>- Poor letter and letter -sound knowledge</td>
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<tr>
<td></td>
<td>- Poor rhyming</td>
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<tr>
<td></td>
<td>- Poor phonemic awareness</td>
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Godsworthy, 1998; Snowling & Stackhouse, 1996
### Types of Formal Assessments and Related Functions

<table>
<thead>
<tr>
<th>Type</th>
<th>Function</th>
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<tbody>
<tr>
<td>Screening</td>
<td>Identify children who are and are not learning at an expected level</td>
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<tr>
<td>Progress-monitoring</td>
<td>Monitor the progress or growth of children receiving specialized instruction</td>
</tr>
<tr>
<td>Diagnostic</td>
<td>Determine children's individual strengths and weaknesses</td>
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<tr>
<td>Outcome</td>
<td>Document and evaluate the effectiveness of literacy programs</td>
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</tbody>
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### EARLY LITERACY SCREENING ASSESSMENTS

**GET READY TO READ! SCREENING TOOL**

- NATIONAL CENTER FOR LEARNING DISABILITIES (NCLD)
- HTTP://WWW.GETREADYTOREAD.ORG
- 20 ITEMS (PRINT KNOWLEDGE, EMERGENT WRITING, AND LINGUISTIC AWARENESS)
- COMPUTER-BASED ONLINE INSTRUMENT
- PRE-KINDERGARTEN
EARLY LITERACY SCREENING ASSESSMENTS

PHONOLOGICAL AWARENESS LITERACY SCREENING (PALS-PRE-K AND PALS-K)
- HTTP://PALS.VIRGINIA.EDU/TOOLS-PREK.HTML
- HTTP://PALS.VIRGINIA.EDU/TOOLS-K.HTML
- MEASURES KNOWLEDGE (RHYME, AWARENESS OF BEGINNING SOUNDS, LETTER NAMING, BOOK AND PRINT AWARENESS, NAME WRITING)

EARLY LITERACY SCREENING ASSESSMENTS

INDIVIDUAL GROWTH AND DEVELOPMENT INDICATORS (IGDI)
- UNIVERSITY OF MINNESOTA
- HTTP://GGG.UMN.EDU
- DEVELOPMENTAL PERFORMANCE MEASURES (RHYME MATCHING, ALLITERATION MATCHING AND PICTURE NAMING)
- 30 MONTHS TO 6 YEARS
- SCREEN AND PROGRESS MONITOR
- AVAILABLE ONLINE
STANDARDIZED ASSESSMENTS FOR YOUNG CHILDREN

• EXPRESSIVE ONE-WORD PICTURE VOCABULARY TEST (EOWPVT; BROWNELL, 2000)
• PEABODY PICTURE VOCABULARY TEST (3RD ED.) (PPVT-III; DUNN & DUNN, 1997)
• TEST OF PRESCHOOL EARLY LITERACY (TOPEL; LONIGAN, WAGNER, TORGESEN, & RASHOTTE, 2007)
• PRESCHOOL LANGUAGE SCALE (4TH ED.) (PLS-4; ZIMMERMAN, STEINER, & POND, 2002)

EARLY LITERACY DIAGNOSTIC ASSESSMENTS

• IDENTIFY STRENGTHS AND SPECIFIC NEEDS
• TARGET AREAS OF INSTRUCTION
  • VOCABULARY
  • LETTER RECOGNITION
  • PHONOLOGICAL AWARENESS
• CLASSIFY AN AREA OF DISABILITY
EARLY LITERACY DIAGNOSTIC ASSESSMENTS

• ASSESSMENT OF LITERACY AND LANGUAGE (ALL) PEARSON EDUCATION, INC.
  • PRE-K – 1ST GRADE
  • SPOKEN AND WRITTEN LANGUAGE SKILLS

• TEST OF EARLY READING ABILITY (3RD ED.) (TERA3) PRO-ED
  • 3.6 - 3.8 YEARS
  • DIRECT MEASURE OF READING ABILITY

• TEST OF PRESCHOOL EARLY LITERACY (TOPEL) PRO-ED
  • 3-5 YEARS
  • IDENTIFY RISK FOR LITERACY CHALLENGES

TYPES OF INFORMAL ASSESSMENTS

• OBSERVATIONS AND TEACHING RATINGS
• PORTFOLIOS
• PARENT RATINGS

EARLY LANGUAGE AND LITERACY CLASSROOM OBSERVATION (ELLCO)
  • HTTP://WWW.BROOKESPUBLISHING.COM/STORE/BOOKS/SMITHELCO/INDEX.HTM
  • PRE-K – 3RD GRADE CLASSROOM OBSERVATION TOOL
  • ADDRESSES THE ROLE OF ENVIRONMENTAL FACTORS
  • CONDUCTIVE AS A BASELINE ASSESSMENT
  • DETERMINE PROGRESS
THE EARLY LITERACY CHECKLIST

- Designed for early childhood educators, parents, and caregivers
- HTTP://WWW.MYCHATTERBUGS.COM/UPLOADS/8/1/3/1/8131164/CATTS_EARLY_ID_OF_LANGUAGE- BASED_READING_DISABILITIES_ABSTRACT_C.PDF
- Informally identify the general level of early literacy skill development
  - Oral language
  - Phonological awareness
    - Rhyme
    - Blending
    - Segmenting
  - Print knowledge
    - Print awareness
    - Alphabet knowledge
    - Writing development

WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

Reading disorder can be predicted with
"Moderate accuracy" at age 5
(Pennington and Lefly, 2001)

At 5 years of age, children who had poor
letter knowledge, poorly developed
phonological awareness, and expressive
naming difficulties went on to be
recognized as dyslexic
(Snowling, Gallagher, Frith, 2003)
WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

PHONOLOGICAL AWARENESS IS ONE OF THE BEST PREDICTORS OF HOW WELL CHILDREN WILL LEARN TO READ DURING THE FIRST 2 YEARS OF SCHOOL INSTRUCTION.

PHONOLOGICAL AWARENESS DEFICITS CAN BE IDENTIFIED EARLIER (K, 1) THAN THE RESULTING LEARNING DISORDER.

(BALL & BLACHMAN, 1991)

WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

- MEASURES AVAILABLE THAT CAN IDENTIFY AT RISK CHILDREN IN MID-KINDERGARTEN WITH 85 PERCENT ACCURACY.
- IF AT-RISK STUDENTS ARE NOT PROVIDED INTERVENTION BY AGE EIGHT, THEY HAVE A 74% CHANCE OF CONTINUING THEIR READING DIFFICULTIES INTO HIGH SCHOOL.

(STRAIGHT TALK ABOUT READING, 1999)
WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

NATIONAL INSTITUTES OF HEALTH STATE THAT 95% OF POOR READERS CAN BE BROUGHT UP TO GRADE LEVEL IF THEY RECEIVE EARLY HELP.

WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

THE TEST RESULTS MAY NOT BE PRECISE ENOUGH FOR A DEFINITIVE DIAGNOSIS, BUT MAY BE ADEQUATE FOR SCREENING PURPOSES TO SUPPORT EARLY INTERVENTION.

(PENNINGTON AND LEFLY, 2001)
WHY ASSESS FOR DYSLEXIA AT A YOUNG AGE?

Studies support that early identification of pre-reading difficulties resulting in direct instruction in phonological awareness and letter-sound correspondence has a positive effect on acquisition of early reading skills.

(Ball and Blachman; Castle, 1994)

WHAT ARE EARLY INDICATORS?

Family History
- Research continues to support a genetic basis for dyslexia
- It is estimated that 30-60% of children whose parent(s) or older siblings are dyslexic will also have difficulty learning to read.

(Scarborough and Dickman, 1999)
WHAT ARE EARLY INDICATORS?

SPEECH-LANGUAGE IMPAIRMENT

• IF HISTORY OF SPEECH-LANGUAGE PROBLEMS, 4-5 X GREATER CHANCE OF FUTURE READING PROBLEM

(CATTS, FEY, ZHANG, TOMBLIN, 2001)

• EVEN WITH EARLY INTERVENTION IN THE PRESCHOOL YEARS, MOST CHILDREN WITH SPEECH AND/OR LANGUAGE DEFICITS GO ON TO HAVE READING DIFFICULTIES

(SCARBOROUGH & DICKMAN, 1999)

WHAT ARE EARLY INDICATORS?

• RECOGNIZES A WORD ONE DAY OR ON ONE PAGE BUT NOT THE NEXT

• SEES THE WORDS ON THE PAGE BUT FOCUSES ON THE PICTURES WHEN TRYING TO READ

• STRONG EXPOSURE TO BOOKS BUT MINIMAL INTEREST IN SHARED BOOK READING

• LISTENING COMPREHENSION APPEARS STRONGER THAN READING COMPREHENSION
VARIABLES THAT CONSISTENTLY PREDICTED LATER LITERACY SKILLS FOR PRESCHOOLERS AND KINDERGARTNERS:

- ORAL LANGUAGE
- PHONOLOGICAL AWARENESS
- PHONOLOGICAL MEMORY
- RAPID AUTOMATIC NAMING
- CONCEPTS ABOUT PRINT
- ALPHABET KNOWLEDGE
- WRITING OR WRITING NAME
- ABILITY TO MATCH OR DISCRIMINATE VISUAL SYMBOLS

(REPORT FROM NATIONAL EARLY LITERACY PANEL)

PHONOLOGICAL AWARENESS

- SOUND MATCHING - THE ABILITY TO MATCH THE INITIAL OR FINAL SOUND OF A WORD TO ANOTHER WORD
- ELISION (DELETION) - THE ABILITY TO REMOVE PHONOLOGICAL SEGMENTS FROM SPOKEN WORDS TO FORM OTHER WORDS
- BLENDING - THE ABILITY TO BLEND WORD PARTS AND INDIVIDUAL SOUNDS TO FORM A WORD
- SEGMENTATION - THE ABILITY TO SAY SEPARATE PHONEMES THAT MAKE UP A WORD
- PHONEME ISOLATION (AGES 7+) - THE ABILITY TO IDENTIFY THE FIRST, LAST, MIDDLE OR EMBEDDED SOUND IN A WORD, AWARENESS OF THE ORDER IN WHICH PHONEMES ARE STRUNG TOGETHER IS LINKED TO READING AND SPELLING (EX. PAT, TAP, APT)
ASSESSMENT OF PHONOLOGICAL AWARENESS

Because there are a number of possibilities for phonological awareness assessment, you have to know what skills are most predictive at what grade to help guide your assessment.

- Phoneme segmentation represents the level of phonological awareness most related to beginning reading skills (Yopp, 1998).
- Performance on sound manipulation tasks, such as elision, shows a strong correlation to reading all the way thru 12th grade.

ASSESSMENT OF PHONOLOGICAL AWARENESS

Kindergarten

- Word recognition correlates best with sound isolation and rhyme.
- Blending and segmenting of 2-3 phoneme words also has predictive value.
- After kindergarten, rhyme loses its predictive value.
- Poor phonological awareness results in poor decoding for reading and encoding for spelling (Torgesten, 2000).
KINDERGARTEN

STRONGEST PREDICTORS FOR SUCCESS IN EARLY READING AT KINDERGARTEN LEVEL:
- MASTERY OF PHONOLOGICAL AWARENESS AT SYLLABLE LEVEL
- RHYME
- SOUND ISOLATION
- BLENDING AND SEGMENTATION OF 2 TO 3 PHONEMES

ASSESSMENT OF PHONOLOGICAL AWARENESS

- RAPID COLORING NAMING IN KINDERGARTEN WAS STRONGLY CORRELATED WITH A KINDERGARTEN CHILD'S ABILITY TO IDENTIFY UPPER AND LOWER CASE LETTERS (BLACHMAN, 1984)
- NAMING SPEED IS A COMPLEX SYSTEM OF ATTENTIONAL, MEMORY, COGNITIVE, MOTORIC AND LINGUISTIC PROCESSES THAT NEED TO WORK TOGETHER RAPIDLY AT ONE TIME.

NOTE: MOST OF THESE SAME PROCESSES AND EFFICIENCY REQUIREMENTS ARE ALSO FOUND IN A MORE COMPLEX LEVEL OF READING (BOWERS AND WOLF, 1999)
FIRST GRADE

STRONGEST PREDICTORS FOR SUCCESS IN EARLY READING AT FIRST GRADE LEVEL:
• SOUND MANIPULATION (ADDING, CHANGING, DELETING SOUNDS)
• PHONEME SEGMENTATION

PHONOLOGICAL PROCESSING

SKILL - MOST RELATED TO:
• PHONOLOGICAL AWARENESS – DECODING AND ENCODING
• PHONOLOGICAL MEMORY – DECODING OF UNFAMILIAR MULTIPLE SYLLABLE WORDS, VOCABULARY AND READING COMPREHENSION
• RAPID NAMING – AUTOMATICITY WITH WORD RECOGNITION AND READING FLUENCY
WHEN TO EVALUATE?

KINDERGARTEN OR FIRST GRADE STUDENT:
- BELOW GRADE LEVEL PERFORMANCE ON BENCHMARK MEASURES
- LACK OF EXPECTED RESPONSE TO TARGETED READING INTERVENTION
- OTHER FACTORS RECOGNIZED BY TEACHER
- FAMILY HISTORY OF DYSLEXIA
- FRUSTRATION WITH READING

EARLY LITERACY

- THE MORE CHILDREN KNOW ABOUT LANGUAGE AND LITERACY BEFORE THEY BEGIN FORMAL SCHOOLING, THE BETTER EQUIPPED THEY ARE TO SUCCEED

THE FRAMEWORK OF ORAL LANGUAGE

All languages are rule based that lead us from oral to written language.

- Phonology
- Semantics
- Morphology
- Syntax
- Prosody

EARLY INTERVENTION IS CONSIDERABLY MORE EFFICIENT AND EFFECTIVE THAN TAKING A "WAIT SEE" APPROACH.

SIX VARIABLES REPRESENTING EARLY LITERACY SKILLS

- Alphabet knowledge
- Phonological awareness
- Rapid Automatized naming of numbers and letters
- Rapid Automatized naming of objects and colors
- Phonological memory
- Writing letters and writing name


AN ADDITIONAL FIVE AREAS WERE MODERATELY CORRELATED WITH LATER LITERACY SKILLS

- Concepts about print
- Print knowledge
- Reading readiness
- Oral language
- Visual processing

ESSENTIAL COMPONENTS OF EARLY LITERACY

PAULSON & MOATS, 2010.

PHONOLOGICAL AWARENESS CONCEPTS CONTINUUM

MOATS, 2005.

(Texas Center for Reading and Language Arts, 2006)
ENGLISH IS AN ALPHABETIC LANGUAGE

26 letters  44 sounds  98 grapheme combinations

A B C D E F G
H I J K L M N
O P Q R S T
U V W X Y Z

What else do children need to know?

- The alphabet!
- Children need to know the alphabet in order to use their phonemic awareness for reading.
- Identify each letter by shape, confidently and securely.
- Form the letters with legible accuracy and ease.

Adams, 2013.
THE ALPHABETIC PRINCIPLE

- The ability to recognize letters is not enough!

- Children must be able to seek, recall, and create a mental image of the word when given the name or sound of a letter.

Letter knowledge is a predictor of their responsiveness to phonemic awareness training!

Adams, 2013.

CASCADING CONSEQUENCES OF SLOW READING: A PERPETUATING CYCLE!

- Declining comprehension
- Labored inefficient reading
- Lack of fluency
- Smaller vocabulary; limited knowledge of academic language
- Lack of motivation and practice