

Disclosures

- Financial Disclosures: Cassondra
 Receives a salary from The Ohio State
 University
- Non-Financial Disclosures: Cassondra and Amy are members of The Board of Directors for the Central Ohio Branch of the International Dyslexia Association

Learning Outcomes

- Identify the core features and profile of dyslexia.
- Identify areas of difficulty beyond word recognition.
- Describe the roles of speech-language pathologists in identification and intervention of dyslexia.

OI

Introduction

About Me...



About Me...









How confident do you feel supporting students with dyslexia in your school setting?

"Dyslexia is the most common learning disability in the United States, thought to affect somewhere between 5% and 20% of the population.

02

Defining Dyslexia



Definition:

"Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge."- The <u>International Dyslexia Association (2002)</u>

Language-Learning Disability

"A language disorder is impaired comprehension and/or use of spoken, written and/or other symbol systems. The disorder may involve (1) the form of language (phonology, morphology, syntax), (2) the content of language (semantics), and/or (3) the function of language in communication (pragmatics) in any combination." (ASHA,1993)

CONTENT

What we say
Semantics
Word meanings,
ways word meanings link
together, sequencing

FORM

How we say it

Phonology,

Morphology, Syntax

Word order, word
endings, speech

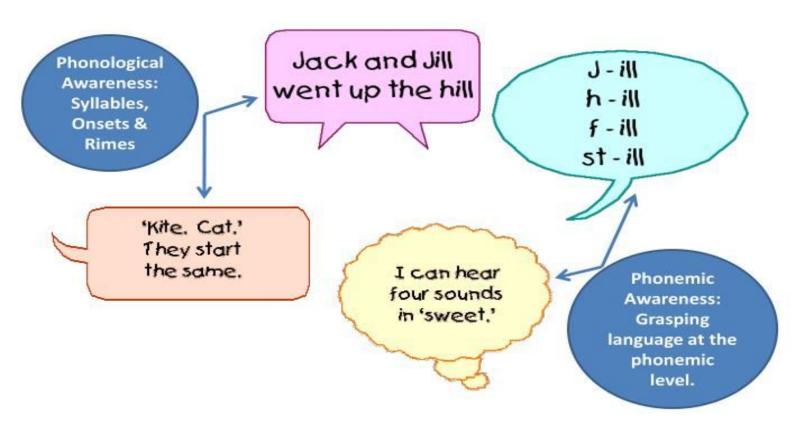
Why we say it

Pragmatics

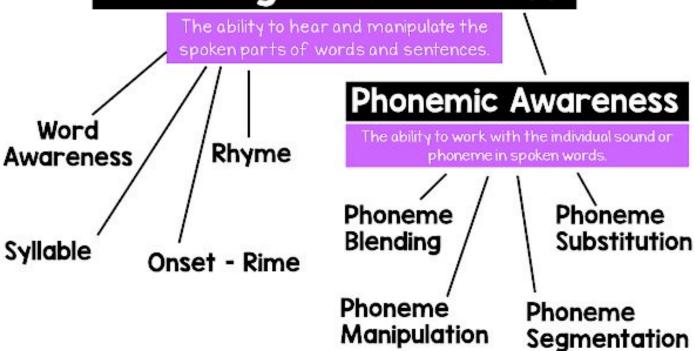
Conversation,
social rules,
matching language
to situation

What is Language? Bloom, Lahey (1978)

Phonological vs. Phonemic Awareness



Phonological Awareness



Billionia Arond Dr Frinany

What does a reading disability have to do with speech and hearing?



In the Beginning.....

Native Preliterate Brain

- Exposure
- Awareness
- Infer perceptual accuracy

Unreliable representations

How and Why?



Goswami's Temporal Sampling Framework:

"Provides sensory, neural, and cognitive theoretical basis for understanding phonological development and phonological impairments"

Oscillations
Speech Envelope
Entrainment- synchronization
Impaired in sensing amplitude rise time

Oscillations* unable to calibrate with speech signal

The Dyslexia Deficit

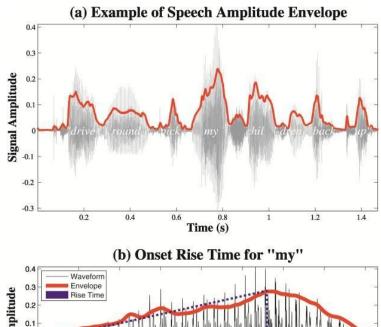
 Parse speech signal/ chunk sound units

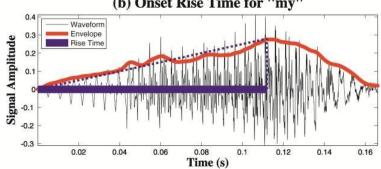
Identify stress timing

(Goswami, 2018)

Variability in perceptions

(Casinin et al., 2015)



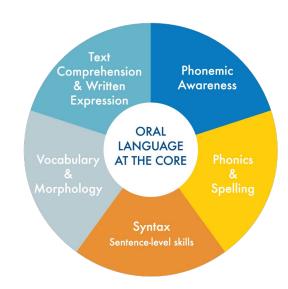


Oral Language & Dyslexia

Temporal Sampling Framework (TSF) (Goswami, 2011)

"Slower rates of energy variation (< 10 Hz), which govern **rhythm perception**, are the main source of dyslexic children's perceptual difficulties."

"Speech envelopes in a 0- to 2-Hz (delta) band were encoded less accurately by the children with dyslexia (Power, Colling, Mead, Barnes, & Goswami, 2016), even when the children with dyslexia were compared with reading-level-matched children who were 2 years younger."



Oral Language & Dyslexia continued

What does this mean for spelling and reading?

Impairments in detecting rhythmic patterns and synchronizing movement to rhythm

Correlates with phonological awareness

Syllable stress timing impairments

Correlate with level of neural rhythmic entrainment

(oscillation phase lock with timing occurring in speech)

Unable to create abstract phonological representations



Prosodic Sensitivity

"...auditory processing difficulties that characterise children with developmental dyslexia appear to impair their sensitivity to phrase-level prosodic cues such as metrical structure" (Goswami, Astruc, & Gerson, 2009)

Experiment:

Reiterant Speech Task: DEE dee DEE dee (Harry Potter)

Results:

Rise time is an important cue to prosodic patterning Rhythmic and rhyme awareness are linked

Coarticulation: From Oral to Written

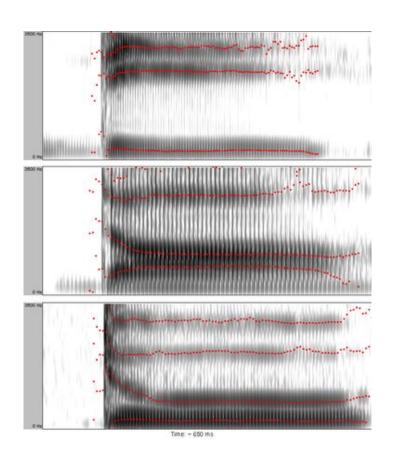
Why is phonemic awareness so difficult?

Coarticulation and Segmentation of a word

Do we hear the sounds we have trained them to associate?

Spectrogram: Liberman, 1957

2+ units, syllables, words



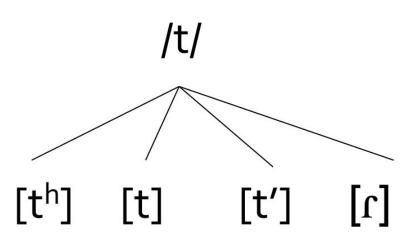
Coarticulation: From Oral to Written

Allophonic variations:

hit tip little

Dyslexics are more sensitive to these variations

= Poor Categorical Perception



(Dr. Tarkan Kacmaz, image)

Trouble with Vowels

Short Vowel Difficulty:

e

VS.

Ĭ

Blending:

an

&

am

```
Short-a-1 = /æ/
Short-a-2 = |\alpha|
  (same as Short-o)
Short-e = |\varepsilon|
Short-i = /I/
Short-o = |a|
  (same as Short-a-2)
Short-u = /A/ OR /a/
  (same as Schwa)
Short-oo = /u/
```

The Schwa

English is described as a stress-timed language.

Multisyllabic Decoding & Pronunciation

CONSIDER:

Produce

Production

Productive

Productivity

Reproduce

Reproduction

	Draw a box around the primary accented syllable and underline the secondary accented
	syllable. Then pronounce and combine the syllables, and write the whole word.

con grat u late	
i so late	
con cen trate	
ac cu mu late	
ab di cate	
vi o late	
e vap or ate	
lib er ate	
vac cin ate	Account of the second second
in val i date	

Function Words and Abstract Words

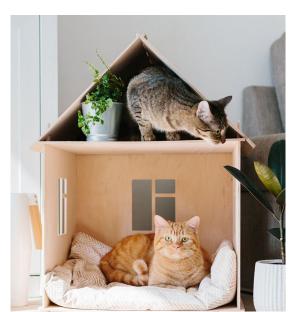
Dyslexia makes it especially difficult for students to correctly read to function words

Determinative Function Words:

a, an, & the

The cat ran into a house.

A cat ran into the house.



Prosody: Overlooked & Underappreciated

TRUE FLUENCY REQUIRES PROPER RHYTHM & AFFECT

How do we get there?

rapid decoding → stresses/schwas → intonation

Interrogative Sentences (intonational "uptalk")

Emotional sentences (greater pitch span)

Breaks for ending punctuation

03

Myths vs. Facts About Dyslexia

Dyslexia Myth:

Writing and reading letters backwards is a main sign of dyslexia.

Dyslexia Fact:

Some individuals with dyslexia write letters backwards, however, some individuals do not. This is not necessarily a sign of dyslexia

The Mirror Image Generalization: must be unlearned for letter discrimination







b

d

p q

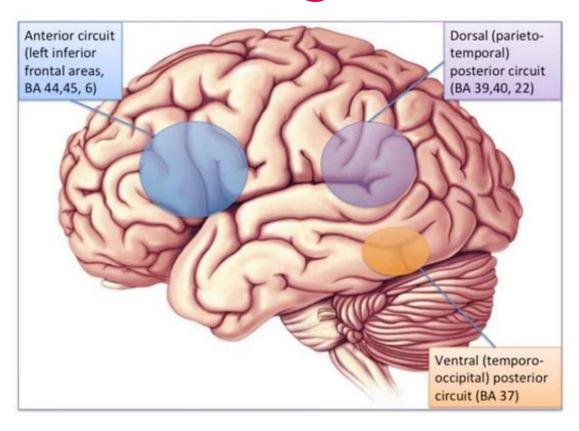
Dyslexia Myth:

Dyslexia is caused by insufficient or ineffective phonics instruction.

Dyslexia Fact:

Additional phonics instruction may not significantly benefit a child with dyslexia. Children with dyslexia can acquire phonics skills once they possess foundational phonemic awareness abilities; however, they may still struggle with its application. Hence, challenges in phonics and word pronunciation serve as valuable indicators of dyslexia.

Neurobiological in Nature



Neuroanatomical Differences

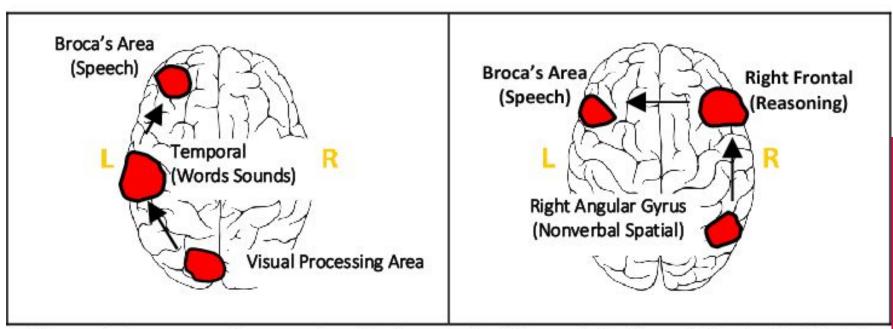


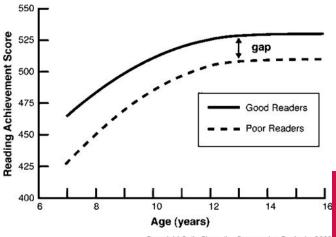
Figure 1 Language Processing Pathways for Normal (left) and Dyslexic (right)

Dyslexia Myth:

You can outgrow dyslexia.

Dyslexia Fact:

Dyslexia persists throughout the lifespan; annual monitoring of phonological skills, the condition endures into adulthood. While many individuals with dyslexia become proficient with reading, they may still read slowly or lack automaticity.



Copyright Sally Shaywitz, Overcoming Dyslexia, 2003

Dyslexia Myth:

Dyslexia is more prevalent in BOYS

Dyslexia Fact:

Dyslexia is identified more often in males but there is **NO difference** in the presence of dyslexia for males and females (Shaywitz & Shaywitz, 2020)



Dyslexia Myth:

Accommodations are a crutch. Students who utilize them (i.e. assistive technology) will become lazy.

Dyslexia Fact:

Accommodations are not an advantage; rather, they represent an effort to create a fair and equitable playing field

Myths Vs. Facts About Dyslexia

Dyslexia Myth:

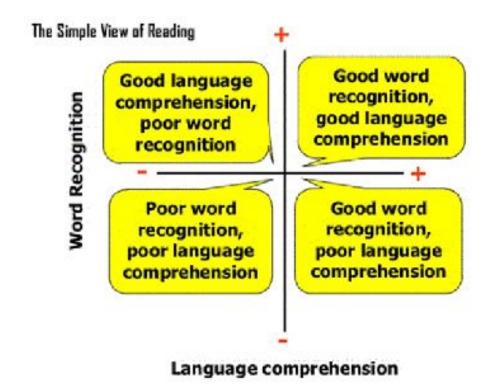
Dyslexia is caused by issues with eyesight and colored overlays/irlen lenses can help them read.

Dyslexia Fact:

"....colored overlays were ineffective and potentially detrimental to participants' reading abilities."



Reading



(Catts, Adolf, and Weismer, 2006)

Simple View of Reading (Cont.)

Language Comprehension

- Background knowledge
- Vocabulary
- Language Structures
- Literacy knowledge
- Verbal reasoning

Word Recognition (Decoding)

- Phonological Awareness
- Phonics
- · Sight Word Recognition

Writing:

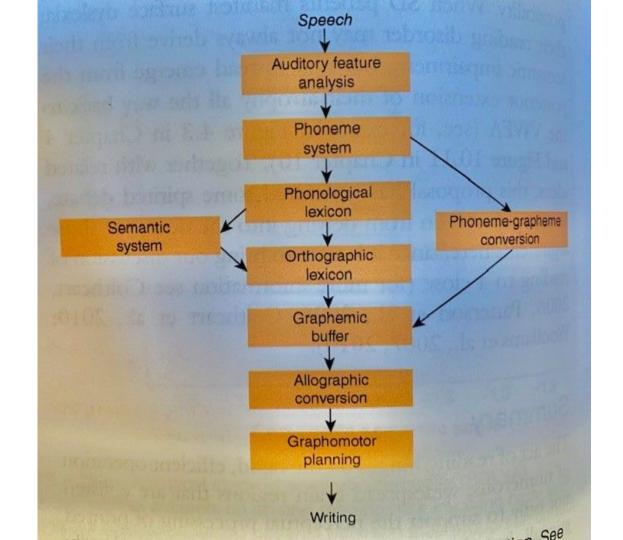
Letters

Words

Sentences

Paragraphs

Essays



Signs of Dyslexia

- Difficulty learning nursery rhymes
- Difficulty remembering and using the names of letters in the alphabet
- Child is unable to recognize letters in his/her name
- Difficulty learning shapes, colors, numbers, days of the week, or letters
- Difficulty with syllableness
- Doesn't recognize rhyming patterns (i.e. mat, rat)
- Dyslexia often runs in families. Check for family history of difficulty with reading and writing

04

Comorbidities: A Break Down

Comorbidities

- Developmental Language
 Disorders
- Speech Sound Production
 Disorders
- ADHD
- Working Memory

Developmental Language Disorders

Catts, H. W., Adlof, S. M., Hogan, T. P., & Weismer, S. E. (2005)



- Deficits in language development
- Deficits in multiple domains
- Large proportion of students not identified

- Deficits in word reading
- Decreased rate of language acquisition
- Often co-occur (approximately 55%)
- Difficulty with executive functions: working memory

ADHD and Dyslexia

Willcutt, E. G., & Pennington, B. F. (2000)



- Self-regulation (control of response)
- Executive Functions:
 Planning, problem
 solving, task initiation,
 working memory

- Verbal Reasoning
- Working memory (verbal)
- Phonological Awareness skills

- Rapid Automatic naming
- Processing Speed
- 45% comorbidity rate

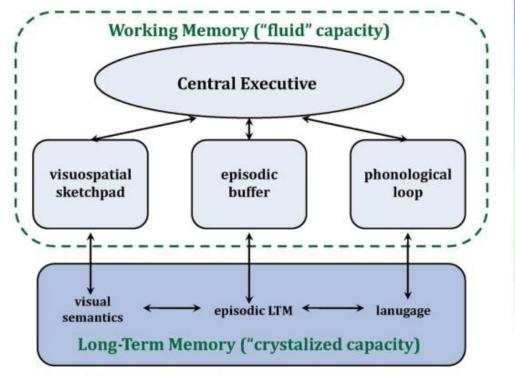
Consider Working Memory & RAN

"Limited cognitive capacity to retain information while simultaneously processing the same or other information." Dehn, 2016

- Think about working memory and its impact on academic achievement
- Lack automaticity*

ADHD and Dyslexia

Working Memory Model



Based on Baddeley, A. D. (2000) Trends in Cognitive Science, 4, 417-423.

Word Retrieval

Retrieving individual sounds within the word

Sending those sounds to the motor planning articulatory muscles

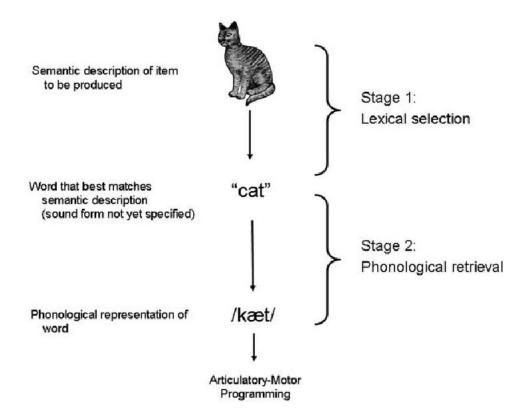


Illustration of a two-stage theory of word retrieval. The figure illustrates a generic version of the theory; individual theories differ in their specific details (cat illustration from Rossion & Pourtois, 2004).

Areas of Academic Difficulty

Sequencing	Summarizing/ Main Idea	Vocabulary
Multi-step directions	Reading 'smoothly'	Word problems in math
Proofreading written work/ Grammer	Organizing thoughts in writing	Word recall

Dyslexia and Oral Language

Snowling, M. J., & Hulme, C. (2020)

Area	Key Points		
Relationship	Oral language is the foundation for written language. Dyslexia and oral language disorders can co-occur but are separate disabilities.		
Core Deficit	Phonology is the primary weakness in students with dyslexia.		
Additional Difficulties	Many children with dyslexia may also struggle with vocabulary, syntax, and morphology.		
Impact on Reading	Oral language difficulties increase risk for reading comprehension deficits, especially when vocabulary, syntax, and morphology are limited.		
Risk Factors	Children with late or delayed oral language development are at greater risk for reading disabilities.		

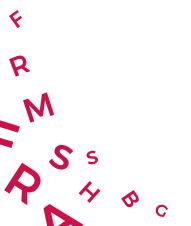
05

The Role of Speech Language Pathologists

"Spoken and written language are interconnected at every level; instruction in one modality can influence growth in the other"

International Dyslexia Association

Assessment



Dyslexia Profile

- Difficulty with accurate and fluent word recognition
- Challenges in spelling
- Impact on reading comprehension
- Differences in phonological processing
- Struggles with recognizing and manipulating sounds in language
- Potential difficulties with other language skills like vocabulary and grammar
- Lifelong condition
- Early identification and intervention can significantly mitigate its impact

Dyslexia Profile vs. Spoken and Written Language Deficit

Pieretti, R. & Ward-Lonergan, J.M., 2016; CSHA Position Paper and Resource Guide, 2016

	Dyslexia	Specific Comprehension Deficit	Mixed Decoding/ Comprehension Deficit	
Listening Comprehension	Average to above average	Below average	Below average	
Reading Comprehension	March 400 Acceptable A		Below average	
Oral Language Skills	Average to above average	Below average in one or more sub-components of language	Below average in one or more sub-components of language	
Decoding/Spelling	Below average	Average or above average	Below average	
Reading nonsense words	Below average	Average or above average	Below average	
Phonological Processing	Below average	Average or above average	Below average	
Cognitive Ability	Average to above average	Average to below average	Average to below average	

Assessment: Evaluators

- Masters/ PhD Level Professionals
- Tutors offering screenings (one piece of the puzzle)
- Who is evaluating?

SLPs, Neuropsychologists

Assessment:

- Assessment necessitates a collaborative effort!
- Incorporating both academic and language assessments.
- Conducting a thorough and inclusive case history, encompassing family background.
- Reviewing all pertinent records, such as school or clinic evaluations,
 Individualized Education Programs (IEPs), etc.
- Cognitive and intellectual assessments should be duly taken into account.

Assessing for Language AND Literacy

Phonological Awareness, Rapid Naming, Phonics,
 Reading Fluency, Vocabulary, Comprehension, Spelling,
 Written Expression, Reading Ability

Think about what tests we give that evaluate these areas???

Assessment: Language *AND* Literacy

Phonological Processing

- Comprehensive Test of Phonological Processing, Second Edition (CTOPP-2)
 Composites: <u>Phonological Awareness Phonological Memory Rapid Symbolic Naming Alternate Phonological Awareness</u>
- Phonological Awareness Screening Test (PAST)

Spoken Language

- Clinical Evaluation of Language Fundamentals, Fifth Edition (CELF-5)**
- Comprehensive Assessment of Spoken Language, Second Edition (CASL-2)
- Test of Integrated Language and Literacy Skills (TILLS)

Assessment: Language AND Literacy

Academic/Educational Testing

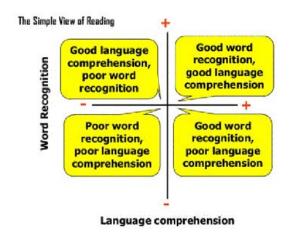
- Wechsler Individual Achievement Test, Third Edition (WIAT-3)
- Kaufman Test of Educational Achievement, Third Edition (KTEA-3)

Written Language

- Test of Word Reading Efficiency, Second Edition (TOWRE-2)
- Gray Oral Reading Tests, Fifth Edition (GORT-5)
- Qualitative Reading Inventory, Sixth Edition (QRI-6)
- Test of Written Language, Fourth Edition (TOWL-4)
- Test of Early Written Language, Third Edition (TEWL-3)
- Test of Written Spelling, Fifth Edition (TWS-5)
- Word Identification and Spelling Test (WIST)
- Test of Integrated Language and Literacy Skills (TILLS)

Dyslexia Profile

	Dyslexia (A)	Mixed Decoding/ Comp. Deficit (B)	Specific Comp. Deficit	Typical Reading
Language Comprehension	Good	Poor	Poor	Good
Word Recognition	Poor	Poor	Good	Good



Assessing for Language AND Literacy

- Informal observation of oral language and speech (Narrative? Sound errors? Pronunciation problems with multisyllabic words? Grammar and syntax problems? Word finding problems?)
- Reading a grade appropriate passage (Labored decoding? Reduced reading comprehension?)
- A classroom writing sample (Spelling errors? Grammar errors?)
- Review other subtest scores from the WJIV/WIAT-IV (Spelling, etc.) collaborate with your team!

Treatment



A Child's Journey Through Learning to Read

- 1. Learning to LOVE books
- 2. Enjoying the meaning of books
- 3. Learning how books work
- 4. Discovering that print has meaning
- 5. Memorizing books
- 6. Rehearsing books
- 7. Recognizing the words
- 8. Developing fluency
- 9. Reading Independently

Learning to Read -Read to Learn A Change in Task Demand...

- At 3rd grade many schools stop teaching reading
- 3rd graders are expected to learn information by reading
- The common core state standar

The SLP's Role: Literacy and Language

- SLP training fosters a heightened understanding of social and cultural nuances as well as linguistic variations.
- SLPs contribute their expertise in language development and literacy as key members of interdisciplinary special education teams.
- Equipped with the necessary skills, SLPs can provide direct therapeutic interventions to students with language disorders and collaborate with educators, families, and other professionals to support literacy development effectively (ASHA, 2001; Ehren, 2006).

A Look at Critical Elements of Reading Programs

Established components of reading programs include: :

- Phonics application in both reading and writing practices
- Participating in training to enhance reading fluency
- Receiving systematic and direct instruction in Phonemic Awareness skills.
- Benefiting from enriched language experiences, such as oral narratives or expository scaffolding
- Undergoing systematic and direct instruction in phonics

STRUCTURED LITERACY

Components of Structured Literacy

- Multisensory
- Direct and Explicit
- Structured
- Sequential and Cumulative

What is the content?

 Phonology, Morphology, Syntax, Semantics and pragmatics/ oral language (Structure of Language)

Word Recognition: How do we fit in?

Think About Phonology: Print Concepts

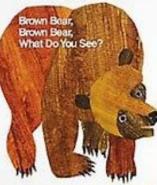
- Phonetic decoding (word attack)
- Word recognition skills
- Phonological awareness (umbrella term): blending/ segmenting sounds, rhyming

Print Awareness

- Use books in therapy!
- Name scavenger hunt around classroom
- Tactile letters (magnetic/ felt) for child to manipulate and identify
- Create "books" with student to write and draw in

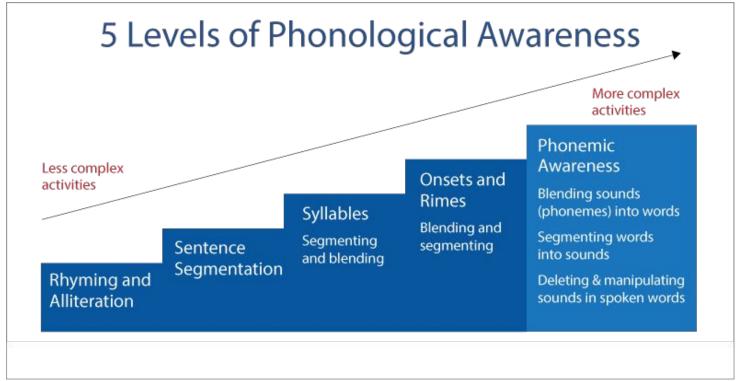








Phonological Awareness



Phonological Awareness

Print Awareness

- Engage students in repeating words individually, focusing on both mono- and multisyllabic words.
- Encourage students to count the words in a sentence.
- Incorporate gestures after each word in a sentence

Rhyming:

- Explore rhymes through reading rhyming books or poems, emphasizing the first word in a rhyming pair and prompting children to identify the second rhyming word.
- Present rhyming riddles, such as "I'm thinking of something that rhymes with..."

Alliteration:

- Introduce tongue twisters/ identify alliteration in books
- Conduct name matching activities where students stand up, jump, or raise their hands if their names start or end with the same sound as a given word..

Word Recognition/ Reading Comprehension (More to Consider)

Morphology (Word Recognition)

- Decoding multisyllabic words
- Target use of prefixes, suffixes, root words (morphological awareness)

Morphology (Reading Comprehension)

- Target use of root words, prefixes, and suffixes (morphological awareness)
- Target comprehension and production of compound and complex sentences
- Advanced syntactic forms

Reading Comprehension: Syntax

Simple sentence: Example: "The cat meows."

Compound sentence: Example: "The cat meows and the bird chirps."

Complex sentence: Example: "The cat meowed the bird was scared."

Compound/Complex sentence: Example: "When the cat meowed, the bird became scared and flew away."

Reading Comprehension

Semantics

- Content-area vocabulary: Semantic Web, Semantic Feature Analysis
- Multiple meaning words: Context of classwork

Enhance the utilization of a context clues strategy:

- Engage with the text meaningfully by considering context.
- Identify and mark clue words within the text.
- Utilize clue words to infer the meaning of unfamiliar terms.
- Provide explanations for the newly discovered words.

Enhance the paraphrasing of main ideas and crucial details:

- Read the paragraph actively, absorbing its content.
- Pose questions regarding the primary concept and specific details.
- Summarize the main ideas and essential details using personalized language.

Explicitly target figurative language: Metaphor, simile, proverb, idiom

Reading Comprehension:

Pragmatics/ Discourse

Narrative, Expository, Persuasive Discourse

NARRATIVE VS. EXPOSITORY

Narrative (Stories)	Expository (Explanations)	
Based on common events from real life	Often about unknown topics	
Familiarity makes prediction easier	New information makes prediction harder	
Familiarity makes inferences easier	New information makes inferences harder	
Key vocabulary often known	Key vocabulary is often new	
Simple vocabulary	Multisyllabic vocabulary, roots + affixes	
Cause and effect known	Cause and effect not known	
Concrete, real concepts	Abstract concepts	
People oriented	Thing or subject oriented	
Dialogue makes text less concrete	Facts make text more concept dense	
Stories can have personal meaning	Explanations have impersonal meaning	
May give insight for own life/interest	May have no relation to own life/interest	
Purpose is to entertain or share experiences	Purpose is to explain or persuade	
Chronological Structure	Structure varies: definition/example; cause and effect; sequence of steps; main idea/details/ examples/generalization	
	Complex concepts	
	Presentation varies; few recognizable types	

Source: Fry, E. & Kress, J. (2006). The Reading Teacher's Book of Lists. Fifth Edition.

San Francisco: Jossey-Bass

06

Collaboration



Caseloads and Teamwork

Current Caseload Limits in Ohio:

Speech & Language Pathologist

80

Intervention Specialist

16



Who has the Time?

Speech & Language Pathologist

1-2x per week 30 min

Intervention Specialist

3 X week for 45 min



OG/ Structured Literacy Lesson

Phonological awareness - rhyming, breaking compounds

Phonemic awareness- segment, blend, change

Visual drill (articulation)

Auditory drill

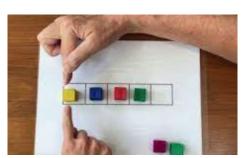
Non-phonetic high-frequency word

who

what

where





OG/Structured Literacy Lesson (cont.)

New grapheme, syllable-type, or morpheme

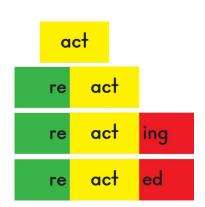
Spelling

Sentence dictation, or writing

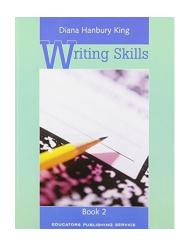
Syllable work & Morpheme work

Reading cumulative decodable texts

Writing: planning, executing, and editing







Collaboration: We're in this together

Dyslexia Assessment: Entire IEP team.

Dyslexia intervention: Intervention Specialist (IS), Teacher,

Speech Language Pathologist

Generalized reading problem:

Assessment: Entire IEP team.

Intervention: Intervention Specialist (IS), Teacher, Speech

Language Pathologist

Overlap: How can we help each other?

What interventions specialists are supposed to be doing:

- Oral language phonological awareness with manipulatives (syllables, rhyming, alliteration))
- Oral language **phonemic awareness** with manipulatives
- Building grapheme-phoneme correspondence
- Improving proper **articulation for sounds**
- Improving proper articulation of beginning & ending consonant clusters
- Improving articulation of multisyllabic words
- Prosody improvement
- Developing **planning skills for writing** for sentences, paragraph, and essays
- Building awareness and correct usage of **morphemes**
- Executive functions: **prepotent responses** (wait, think, then answer, step-by-step)*

Let's Talk: A Team-Based Approach

Cueing for articulation

To the Letter/Sound in the progression

Writing planning strategy alignment

Writing prompt alignment with speech goals

Same expectations in all settings



We can do a lot in literacy sessions to support a student's speech

BUT ONLY IF WE TALK!

Collaboration With Other Professionals

Speech-Language Pathologists (SLPs) contribute to both diagnosing and treating dyslexia, although they are not the sole professionals engaged in these efforts.

Members of the IEP Team:

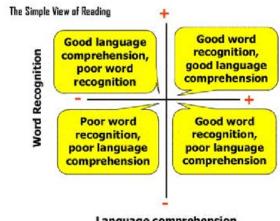
- Reading Specialist
- Special Education Teacher
- Learning Specialist
- Speech-Language Pathologist
- Occupational Therapist
- Physical Therapist
- ESL Teacher

07

Lets
Practice!

Dyslexia Profile

	Dyslexia	Mixed Decoding/ Comp. Deficit	Specific Comp. Deficit	Typical Reading
Oral Language Comprehension	Good	Poor	Poor	Good
Word Recognition	Poor	Poor	Good	Good



Language comprehension

Case Study Practice-Joey

	Standard Score	Percentile Rank	Description
Core Language Score	123	94	Above Average
Receptive Language Index	141	99.7	Above Average
Expressive Language Index	124	95	Above Average
Language Content Index	135	99	Above Average
Language Structure Index	123	04	Above Average

CTOPP: Composites	Standard Score	Percentile	Description
Phonological Awareness	88	21	Below Average
Phonological Memory	88	21	Below Average
Rapid Symbolic Naming	67	1	Very Poor
Alternate Phonological Awareness	88	21	Below Average

Case Study-Joey

Observation:

During a classroom based observation, Joey was observed to use complex grammar and vocabulary when he spoke. When he read, however, he appeared to struggle. For example, when he read a story to the clinician from his school textbook, his reading was observed to be labored. When he was asked to read silently, he was observed to mouth each word separately. When presented with four comprehension questions based on the passage he read, his responded immediately, however, he only answered one question correctly.

Case Study-Joey

What type of reading problem is indicated—Profile A or Profile B? If A, is it a single or double deficit?

Where does it fit on the Simple View of Reading Table?

List specific evidence from the testing to support your decision—cover both CELF-5 Results and PA/RAN Testing Results:

Subtest	Score
Letter- Word ID	
Word Attack	
Passage Comprehension	
Oral Comprehension	

Case Study Practice- Marie

	Standard Score	Confidence Interval 90% Level	Percentile Rank
Core Language Score	70	65 to 75	2
Receptive Language Index	83	77 to 89	13
Expressive Language Index	64	59 to 69	1
Language Content Index	79	74 to 84	8
Language Structure Index	70	65 to 75	2

CTOPP: Composites	Standard Score	Percentile	Description
Phonological Awareness	83	20	Below Average
Phonological Memory	82	20	Below Average
Rapid Symbolic Naming	67	1	Very Poor
Alternate Phonological Awareness	80	19	Below Average

Case Study-Marie

Observation:

During group work, Marie spoke suing simple grammar and vocabulary. When she read out loud to her peers from the worksheet she appeared to struggle. Later in the speech therapy space, the clinician asked Marie to read a stpry from her textbook, her reading was observed to be slow and labored. When she was asked to read silently to herself, she was observed to mouth each word separately. Immediately, following the passage she was asked 4 comprehension questions. Marie requested extra "think time" following each question (30 seconds or greater). She only answered one question correctly.

Case Study-Marie

What type of reading problem is indicated—Profile A or Profile B? If A, is it a single or double deficit?

Where does it fit on the Simple View of Reading Table?

List specific evidence from the testing to support your decision—cover both CELF-5 Results and PA/RAN Testing Results:

Subtest	Score
Letter- Word ID	
Word Attack	
Passage Comprehension	
Oral Comprehension	

08

Conclusion

Final Thoughts

SLPs play a crucial role in identifying, assessing, and treating dyslexia, contributing to improved academic outcomes and overall quality of life for individuals with dyslexia.

Additional Resources

- <u>Teaching Reading (readingresource.net)</u>
- Understood For learning and thinking differences
- Dyslexia Help at the University of Michigan (umich.edu)
- What is Dyslexia? Yale Dyslexia
- <u>Disorders of Reading and Writing (asha.org)</u>
- Child Mind Institute | Transforming Children's Lives
- International Dyslexia Association ...until everyone can read! (dyslexiaida.org)
- https://www.readingrockets.org/literacy-home

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Thanks

Do you have any questions?

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