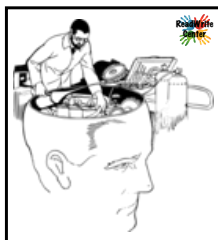


IDENTIFYING RISK FACTORS FOR DYSLEXIA

What Can Teachers and Assessment Teams Do?



Wendy Stacy, M.S., CCC-SLP, LDT, CALT-QI, CDT
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Why are we talking about this?

Definitions

- ✓ Specific learning disability
- ✓ Dyslexia

What are we looking for?

Components of a diagnostic evaluation

What are we looking at?

Ages and stages

Screening

What's a teacher to do?

Why are we talking about this?

Research shows that children who read well in the early grades are far more successful in the later years, and those who fall behind often stay behind when it comes to academic achievement.

2/3 of children in the United States and 80% of those living below the poverty threshold fail to develop reading proficiency by the end of the third grade. American Academy of Pediatrics

If a child is not reading proficiently by 3rd grade, they are four times more likely to drop out of high school. Barbara Bush Foundation for Family Literacy

75% of children whose help is delayed to age 9 or later continue to struggle throughout their school career." (Vellutino, Scanlon, Sipay, Small, Pratt, Chen & Denckla, 1996)

90% of children with reading difficulties will achieve grade level in reading if they receive help in the 1st grade. (Vellutino, Scanlon, Sipay, Small, Pratt, Chen & Denckla, 1996)

AVERAGE STUDENTS RECEIVE ABOUT 10 TIMES AS MUCH PRACTICE IN A YEAR

• 50TH %ILE 5TH GRADE READER
600,000 WORDS A YEAR

• 10TH %ILE 5TH GRADE READER
50,000 WORDS A YEAR

Percentile Rank	Minutes Per Day		Words Read Per Year	
	Books	Text	Books	Text
98	65.0	67.3	4,358,000	4,358,000
90	21.2	33.3	1,397,000	1,397,000
80	16.9	16.9	622,000	1,168,000
60	6.5	13.1	432,000	722,000
50	4.6	9.2	282,000	601,000
40	3.2	6.2	200,000	431,000
30	1.8	4.3	106,000	251,000
20	0.7	2.4	21,000	124,000
10	0.1	1.0	8,000	51,000
2	0	0	0	8,000

EARLY INTERVENTION IS URGENT!

Educational Assessment and Diagnosis of Dyslexia Should We?



Current focus: eligibility determination

Specific learning disability

Specific learning disability (IDEA)

- a disorder in one or more of the basic psychological processes involved in understanding or in using language, *spoken or written*, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

United States Code Sec. 1401

9

...a disorder...basic psychological process...

An assumption that some type of disorder of perception, language, or cognition (e.g., memory) prevents the student from learning

...involved in understanding or in using language, spoken or written

An SLD is a language-based disability...the disability has to do with difficulty with words and the rules of sounds that make up words and words to make up sentences. Deficits may be noted in oral expression and/or listening comprehension abilities.

...that may manifest itself in an imperfect ability to...read...or do mathematical calculations....

SLDs affect the academic performance of the student.

...does not include learning problems that are primarily the result of visual, hearing...

The exclusion component asserts that the specific learning disability is not caused by these factors. However, the word "primarily" suggests that learning disabilities can coexist with those conditions.

National Joint Committee on Learning Disabilities, March 2011

SLD persists in various forms across the life span, with precursor—most often language delays or language deficits in early childhood—appearing before schooling begins into adulthood.

Research has recognized several types:
Dyslexia, dysgraphia/agrapia, dyscalculia, developmental aphasia

- 50% of students qualifying for special education are categorized as SLD.
- Dyslexia is the most common and carefully studied SLD, and affects 80% of students identified as learning-disabled.

(Sally E. Shaywitz, M.D. Department of Pediatrics, Yale University)

The long-term (25-year) *Connecticut Longitudinal Study* revealed that less than one-third of the children reading below age, ability or grade level receive services *specific* to their disability.

(Shaywitz, 2002)

Why?

Special education does not close the reading gap for students with dyslexia. Group sizes are too large and teachers are not adequately trained to provide specialized reading intervention services.

(Foorman, 2008)

"If you don't know the cause, you get instructional paradigms built on faulty assumptions."

G. Reid Lyon, Ph.D.

Definition

Adopted by the International Dyslexia Association Board of Directors
November 12, 2002

***Dyslexia* is a specific learning disability that is neurobiological in origin.**

***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.**

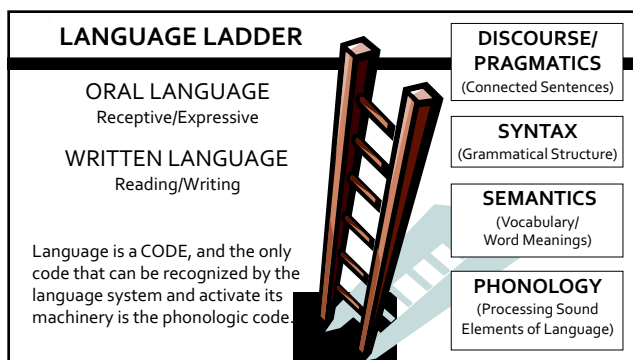
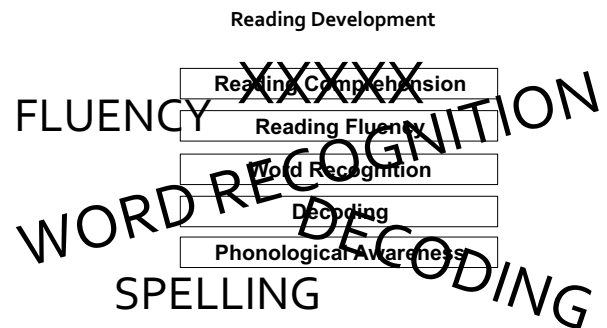
***Dyslexia* is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction.**

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.

Functional definition of dyslexia

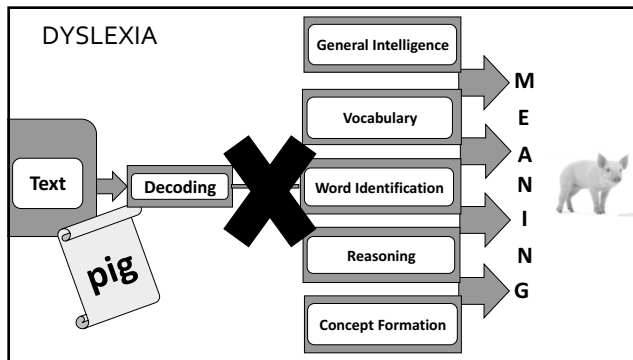
- Dyslexia affects reading at the single word level, reading fluency and rate, and spelling. In turn, these weaknesses cause difficulties with reading comprehension and written expression.
- According to research, the major cognitive correlates of dyslexia include weaknesses in one or more of the following abilities: phonological awareness, orthographic awareness, memory, rapid naming, and perceptual speed.

- Other abilities that do not require reading, such as general intelligence, reasoning, oral language, mathematics, and knowledge, are often unimpaired.
- In other words, the reading and spelling difficulties are often unexpected in relation to the person's other abilities.



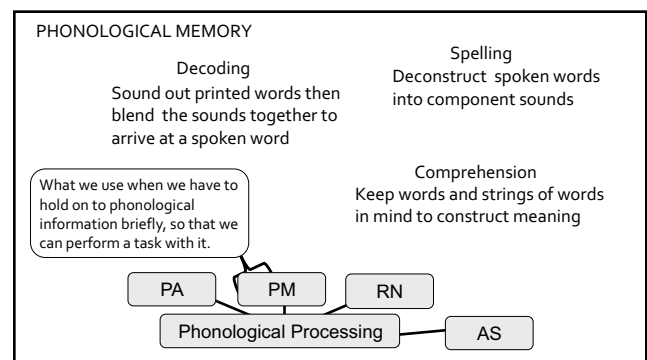
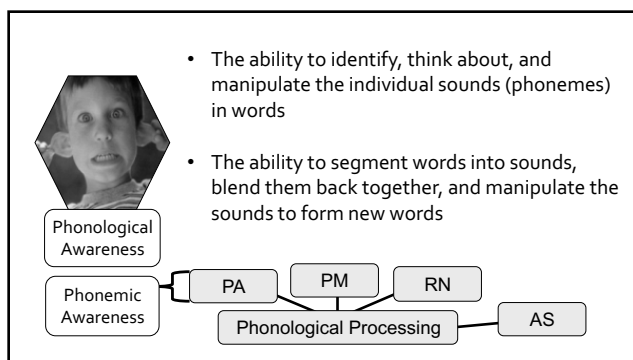
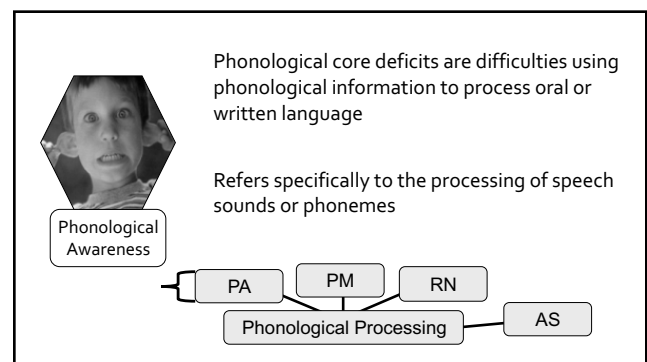
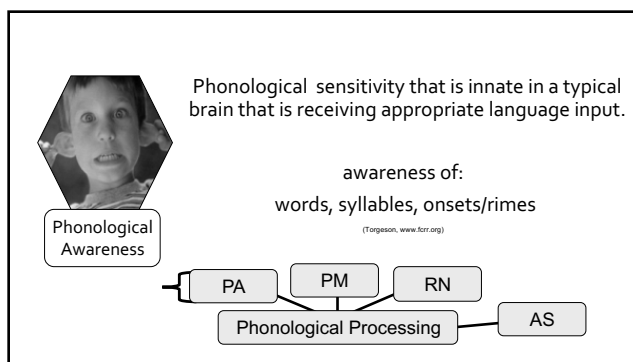
In order to read, a child has to:

- develop the insight that spoken words can be pulled apart into phonemes, and
- that the letters in a written word represent these sounds.



- 3 types of phonological processing that are especially relevant to the mastery of written language

- PHONOLOGICAL AWARENESS
- PHONOLOGICAL (WORKING) MEMORY
- RAPID AUTOMATIC NAMING
 - Articulation Speed



As a result, individuals with deficits in phonological memory may demonstrate:

- difficulty following oral directions
- decreased oral expression skills because of difficulties with word-finding or the inability to hold onto information long enough to verbally express thoughts about it
- difficulty with letter and word identification

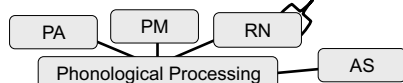
- a restricted sight word vocabulary
- poor orthographic skills (spelling, written expression)
- impaired reading comprehension for complex sentences and longer passages
- difficulty with math computation

RAPID NAMING

A student must quickly access sounds and map them onto letters and letter patterns in order to read words automatically and fluently.

Students who have deficits in both rapid naming and phonological awareness have the most pronounced reading impairments and are the most resistant to intervention.

Rapid naming represents a student's ability to fluently and efficiently access phonologically-coded information from long term memory

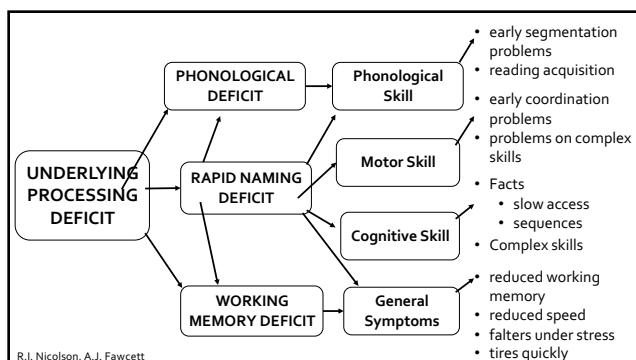
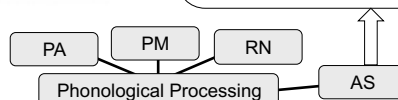


ARTICULATION SPEED



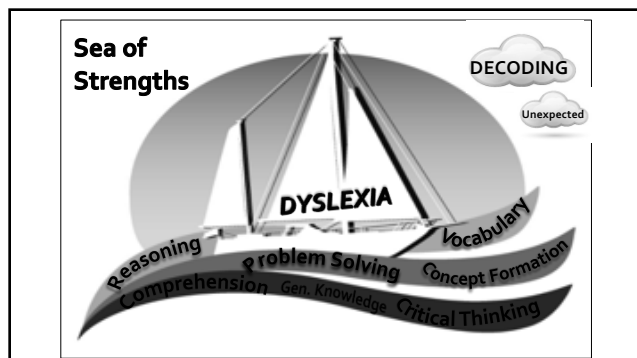
Deficits in Articulation Speed

- result of Cerebellar dysfunction
- causes decreased motor planning/loading ability, and
- incoordination of speaking muscles
- affects both speed and sequencing



- "an average ability to learn in the absence of print or in other academic areas"

- math
- verbal or non-verbal reasoning
- listening comprehension
- oral language skills
- dance
- athletics
- art
- music/drama



Assessment for Dyslexia

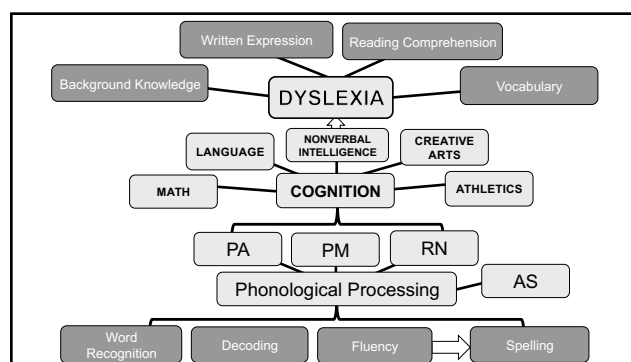
THERE IS NO SINGLE TEST FOR DYSLEXIA

Knowledge of evaluator(s) & team of knowledgeable persons is more important than the tools used

Knowledgeable about:

- The student being assessed
- Reading
- Dyslexia and related disorders
- The assessments used, and
- The meaning of the collected data

Dyslexia is identified by gathering information about all the factors that influence reading development *and* measuring reading ability.



When dyslexia is suspected as the root of the problem, it is **necessary** to consider the following areas when carrying out an evaluation:

- Background information
- Spoken language skills
- Word recognition
- Decoding
- Written spelling
- Phonological processing
- Rapid automatic naming
- Oral reading fluency
- Reading comprehension
- Vocabulary knowledge

International Dyslexia Association 2017

Additional areas that MAY be assessed include:

- Written expression
- Handwriting
- Orthographic processing
- Mathematical reasoning
- Intelligence

Background Information

- Family history of dyslexia or reading/spelling difficulties
- History of delayed speech or language
- Type and length of interventions the child has previously received, as well as the student's response to intervention
- School attendance

Important factors to consider when interpreting results:

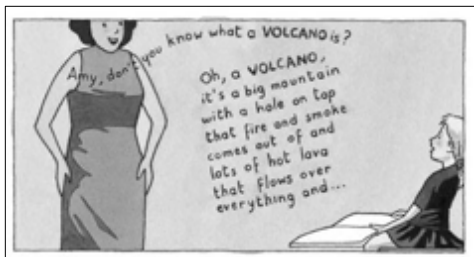
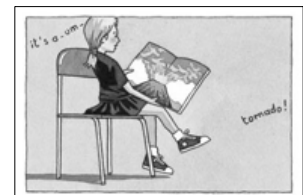
There is no definitive test score that invariably identifies dyslexia.

- Dyslexia is a neurological disorder that exists along a continuum of severity
- Dyslexia is identified based on how far an individual's condition departs from the average range
- This makes the identification of dyslexia more challenging than identifying other forms of disability

- WJ IV will now yield a Dyslexia Report that can be used to guide the decision-making process.



The Paradox of Dyslexia



Source: YAN NAS CIMBENE

Characteristics of twice-exceptional students:

- Superior oral vocabulary
- Advanced ideas and opinions
- High levels of creativity and problem-solving activity
- Extremely curious, imaginative, and questioning
- Discrepant verbal and performance skills
- Clear peaks and valleys in cognitive test profile
- Wide range of interests not related to school
- Specific talent or consuming interest area
- Sophisticated sense of humor

International Dyslexia Association, Gifted and Talented: Identifying and Instructing the Twice-Exceptional Student Fact Sheet 2018

English Language Learner Dyslexic

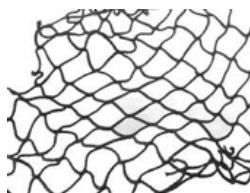
- Struggles are often attributed to lack of English language proficiency
- Often identified 2-3 years later than English-only students
 - Must consider student's proficiency and instructional history in her first language to understand what is happening in the second language
 - Difficulties in first language indicate a possible learning disability may exist
 - Linguistic strengths in first language should transfer to the second

OUR GOAL?



Universal screening assessments are typically brief, conducted with all students at a grade level (typically three times per year)

Universal screening measures consist of brief assessments focused on target skills that are highly predictive of future outcomes (Jenkins, 2003)

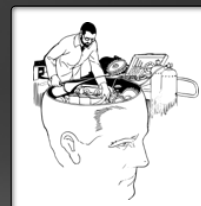


Early identification

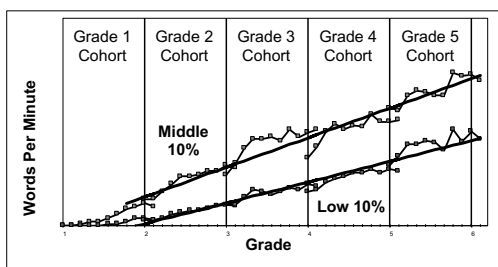
- prevention of reading difficulties

Later identification

- intervention for reading difficulties

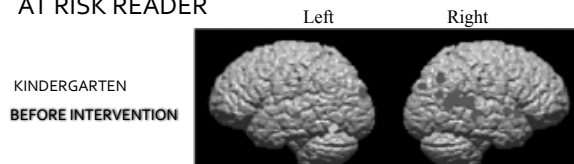


The Importance of Prevention



Good, R. H., Simmons, D. C., & Smith, S. B. (1998). Effective academic interventions in the United States: Evaluating and enhancing the acquisition of early reading skills. *School Psychology Review*, 27, 740-753. [Joint publication with *Educational and Child Psychology*]

AT RISK READER



Dyslexia screening is a tool for identifying children who are at risk for this learning disability, particularly in preschool, kindergarten, or first grade. This means that the screening does not “diagnose” dyslexia. Rather, it identifies “predictor variables” that raise red flags, so parents and teachers can intervene early and effectively.

~ Richard Selznick, Dyslexia Screening: Essential Concepts for Schools and Parents, 2015

The importance of early interventions for students with reading difficulties cannot be overstated. In order for early interventions to be provided, a students must first be identified as at risk for dyslexia or another reading difficulty.

Recent research has encouraged the identification of children at risk for dyslexia and reading difficulties “prior to, or at the very least, the beginning of formal reading instruction” (Catts, 2017)

The purpose of screening and early identification is to:

- a) identify students who are at risk for reading failure,
- b) to provide them with extra intensive instruction,
- c) and to identify any in need of a more thorough and detailed assessment for more specific identification if the students lag behind peers.

(Badian, 2000); (Invernizzi, et al, 2005)

The longer screening and intervention are delayed, the more entrenched reading problems become and the more likely the problems are to have adverse effects on cognitive and language development. (Rathvon, 2004)

The Changing Face of Dyslexia

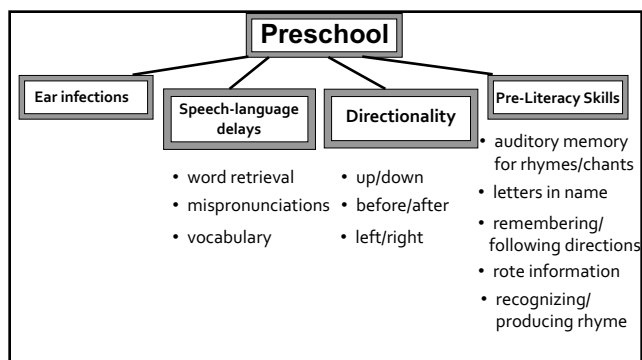


Students at risk for dyslexia may have a history of *any* of the following:

Preschool

- Identification of a phonological “glitch” can be seen as early as three years of age.
- The weaker the phonological skills, the earlier and the greater the struggle.





PRESCHOOL PREDICTORS OF FUTURE READING SUCCESS

Phonological Awareness
Letter Name Knowledge
Rapid Naming of Colors, Objects

ALL OF THESE PREDICTORS ARE DEPENDENT
ON A STRONG PHONOLOGICAL SYSTEM, NOT IQ.

Torgesen, www.fcrr.org

- There is a significant amount of evidence that links early childhood spoken language problems with reading and writing difficulties in school-age children and adolescents

(Nelson 2010, Paul and Norbury 2012; Wallach and Miller 1988)

- Predictive relationship between preschool language developmental delays and delays in emergent literacy skills with later having a reading disability

Kindergarten & 1st Grade



- Difficulty remembering names, shapes, and/or sounds of letters
- Difficulty generating rhyming words
- Difficulty reading common one-syllable sight words
- Difficulty with phonemic awareness tasks

- Reading and spelling errors that involve difficulties with sequencing and monitoring sound/symbol correspondence

- reversals *past/pats*
- omissions *tip/trip*
- additions *slip/sip*
- substitutions *rip/rib*
- transpositions *stop/pots*

- Frustration in school and complains about reading

2nd – 3rd Grade

- Difficulty acquiring new vocabulary or using age-appropriate grammar
- Word retrieval difficulties in class discussions
- Difficulty putting ideas on paper
- Stumbling when reading multisyllabic words and phonetically irregular words
- Difficulty decoding single words in isolation – lacks a strategy

2nd – 3rd Grade

- Confusion of visually similar letters (b/d, p/q, w/m, h/n, f/t)
- Confusion of auditorily similar letters (d/t, b/p, f/v, s/z)
- Spelling skills which are not phonetically consistent
- Slower paced and effortful oral reading; lacks inflection and has a tendency to read through punctuation
- Over-reliance on context to derive meaning from print

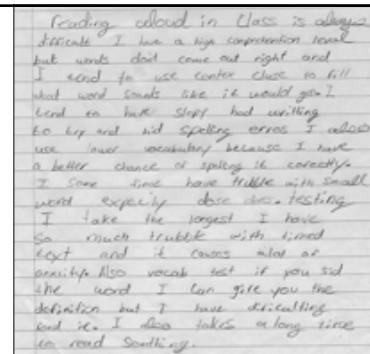
Grades 4-12

- Significant difficulty reading and spelling multisyllabic words, often omitting entire syllables as well as making single sound errors
- Difficulties with reading comprehension and learning new information from text because of underlying word recognition difficulties
- Avoids reading aloud; poor fluency skills



Grades 4-12

- Frequent misreading of common sight words (where, there, what, then, when)
- Tendency to substitute words when confronted with unfamiliar words in the text
- Unusually long hours spent doing homework
- Significant difficulties in writing related to problems in spelling as well as organizing ideas



JADE

<http://youtu.be/Q27DkM==--000-==4VgrA>

Early screening for dyslexia should assess the following skills:

- phonological awareness and phonemic awareness
- sound symbol recognition
- alphabet knowledge
- decoding
- encoding skills
- rapid naming
- listening comprehension
- rate/accuracy (1st grade)

(Schatschneider, et al., 2004), (Torgesen, et al., 1996)

It is important that individuals document student behaviors observed during the administration of the screener. The following behaviors should be monitored and documented:

- Lack of automaticity
- Difficulty sounding out words left to right
- Guessing
- Self-correcting
- Inability to focus on reading
- Avoidance behaviors

Additional Tools for Teachers

Rapid Automatic Naming

- Measures student's ability to rapidly and accurately name letters, numbers, colors, and/or common objects

[illegible]

ARKANSAS RAPID NAMING SCREENER



Primary Spelling Inventory (PSI)

The Primary Linguistic Instrument (PLI) is used in kindergarten through third grade. The 26 words are selected by difficulty to sample homophones of the letter name *ph*-grapheme, to provide a range of word lengths, and to provide a range of word meanings. The words are categorized into unsegmented words to analyze. For kindergarten or other students who cannot read, the words are used to help them to call out the first five words. In late kindergarten or first grade, the words are used to help students to read the last nine words, and second, third, and fourth grades can read the first 19 words.

Word	Phonetic transcription	Segmented	Unsegmented
1. <i>axe</i>	/aks/	ax	ax
2. <i>well</i>	/wɛl/	well	well
3. <i>add</i>	/æd/	ad	ad
4. <i>add</i>	/æd/	ad	ad
5. <i>hope</i>	/hoʊp/	hope	hope
6. <i>wait</i>	/weɪt/	wait	wait
7. <i>game</i>	/ɡeɪm/	game	game
8. <i>head</i>	/hɛd/	head	head
9. <i>think</i>	/θɪŋk/	think	think
10. <i>think</i>	/θɪŋk/	think	think
11. <i>snack</i>	/snæk/	snack	snack
12. <i>snack</i>	/snæk/	snack	snack
13. <i>chew</i>	/tʃu/	chew	chew
14. <i>chew</i>	/tʃu/	chew	chew
15. <i>chew</i>	/tʃu/	chew	chew
16. <i>crave</i>	/kreɪv/	crave	crave
17. <i>crave</i>	/kreɪv/	crave	crave
18. <i>there</i>	/ðɛr/	there	there
19. <i>there</i>	/ðɛr/	there	there
20. <i>spoil</i>	/spɔɪl/	spoil	spoil
21. <i>spoil</i>	/spɔɪl/	spoil	spoil
22. <i>spoil</i>	/spɔɪl/	spoil	spoil
23. <i>camped</i>	/kæmp/	camped	camped
24. <i>camped</i>	/kæmp/	camped	camped
25. <i>clapping</i>	/klæp/	clapping	clapping
26. <i>clapping</i>	/klæp/	clapping	clapping

WORDS THEIR WAY SPELLING INVENTORIES

[illegible]

Words Their Way Spelling Inventory - Spelling Stage Expectations by Grade Level

Grade Level	Typical Spelling Stage Ranges within Grade	End-of-Year Spelling Stage Goal
K	Emergent-Letter Name-Alphabetic	Middle Letter Name-Alphabetic
1	Late Emergent-Within Word Pattern	Early Within Word Pattern
2	Late Letter Name-Early Syllables & Affixes	Late Within Word Pattern
3	Within Word Pattern-Syllables & Affixes	Early Syllables and Affixes
4	Within Word Pattern-Syllables & Affixes	Middle Syllables and Affixes
5	Syllables and Affixes-Derivational Relations	Late Syllables and Affixes
6+	Syllables and Affixes-Derivational Relations	Derivational Relations

Diagnostic Assessments for Early Elementary Students

Foundational Skills Surveys

Diagnostic assessments to measure student acquisition of the Foundational Reading Skills outlined in the Common Core State Standards for English Language Arts.

Really Great Reading® Foundational Skills Survey

Overview

A Brief Explanation of the Foundational Skill Surveys

There are 4 primary Foundational Skills Surveys found in this packet. These are used at the following grades and phases of the school year:

- End of Year Kindergarten (EOYK, Forms A and B)
- Beginning of Year 1st Grade (BOY1, Forms A and B)
- Middle of Year 1st Grade (MOY1, Forms A and B)
- End of Year 1st Grade (EOY1, Forms A and B)

Diagnostic Assessments for Early Elementary Students

1st Grade Foundational Skills Surveys

The first Foundational Skills Survey in this packet (BOY1) assesses a student's ability to read single-syllable high-frequency words, as well as single-syllable decodable words with short vowels, digraphs, and blends.

The next two Foundational Skills Surveys (MOY1 and EOY1) assess similar skills, but increase in difficulty. They assess a student's ability to read advanced high-frequency words and more complex decodable single-syllable words, including words with long vowel spelling patterns. Additionally, these surveys assess a student's ability to read two-syllable words with certain syllable types (closed, open, vowel digraphs, and vowel-consonant-e). The surveys also allow you to assess how well your students handle the various concept of print embedded in the sentences (i.e., capital letters and punctuation).

Each survey includes two forms: Form A and Form B. Form B can be utilized for progress monitoring purposes. They can also be used to select a student if necessary. These forms can be found at the end of this document.

For students who perform well below expectations, the packet also contains three additional diagnostic assessments:

- Sight Word Fluency Survey (three levels) to measure which high-frequency words a student has mastered
- Letter Sounds Survey (part of the Letter Knowledge Survey) to measure phoneme fluency
- Letter Names Survey (part of the Letter Knowledge Survey) to measure fluency with letter naming.

Diagnostic Assessments for Early Elementary Students

Sight Word Fluency Surveys

Words and Sentences to Read

1. Don't hold the fly.

Assessment Name	Beginning of Year			Middle of Year			End of Year		
	Emerging	Approaching	Established	Emerging	Approaching	Established	Emerging	Approaching	Established
Kindergarten Pre-Primer	0-20%	20%-40%	>40%	0-40%	40%-70%	>70%	0-70%	70%-90%	>90%
Kindergarten Primer	0-30%	30%-40%	>40%	0-40%	40%-70%	>70%	0-70%	70%-90%	>90%
1 st Grade	0-30%	30%-70%	>70%	0-40%	40%-80%	>80%	0-70%	70%-90%	>90%
2 nd Grade	0-30%	30%-70%	>70%	0-40%	40%-80%	>80%	0-70%	70%-90%	>90%
3 rd Grade	0-30%	30%-70%	>70%	0-40%	40%-80%	>80%	0-70%	70%-90%	>90%

Diagnostic Assessments for Early Elementary Students

DIAGNOSTIC DECODING SURVEYS

Beginning Decoding Survey

Advanced Decoding Survey

ADVANCED DECODING SURVEYS

An Informal Diagnostic of Advanced Decoding Skills

How do you know if your student is ready to move on to the next level of reading? The Advanced Decoding Surveys are designed to help you determine if your student is ready to move on to the next level of reading. They are designed to be used with students who are struggling with decoding skills.

These surveys are designed to be used with students who are struggling with decoding skills. They are designed to be used with students who are struggling with decoding skills.

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CORE Assessing Reading: Multiple Measures

Measurement Progress for Primary Grade Students (Grades K-3)

Measurement	Kindergarten	Grade 1	Grade 2	Grade 3
Letter Sound Fluency	0-20%	20%-40%	40%-60%	60%-80%
Letter Names Fluency	0-20%	20%-40%	40%-60%	60%-80%
Sight Word Fluency	0-20%	20%-40%	40%-60%	60%-80%
Letter Sound Fluency	0-20%	20%-40%	40%-60%	60%-80%
Letter Names Fluency	0-20%	20%-40%	40%-60%	60%-80%
Sight Word Fluency	0-20%	20%-40%	40%-60%	60%-80%
Letter Sound Fluency	0-20%	20%-40%	40%-60%	60%-80%
Letter Names Fluency	0-20%	20%-40%	40%-60%	60%-80%
Sight Word Fluency	0-20%	20%-40%	40%-60%	60%-80%

Diagnostic Progress for Primary Grade Students (Grades K-3)

Letter Sound Fluency

Letter Names Fluency

Sight Word Fluency

Letter Sound Fluency

Letter Names Fluency

Sight Word Fluency

Letter Sound Fluency

Letter Names Fluency

Sight Word Fluency

Letter Sound Fluency

Letter Names Fluency

Sight Word Fluency

Assessment Sequence for Upper Grade Students (Grades 4-12)

	Grade 4	Grade 5
• 1000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000
• 1000-0000 Reading Fluency Assessment	1000-0000	1000-0000

Diagnostic Plan for Upper Grade Students (Grades 4-12)

1. Identify the student's reading level and determine if the student is at risk for reading difficulties.

2. Conduct a diagnostic assessment to determine the student's specific reading difficulties.

3. Develop a diagnostic plan based on the student's specific reading difficulties.

4. Implement the diagnostic plan and monitor the student's progress.

5. Evaluate the student's progress and determine if the diagnostic plan is effective.

Critical, Evidence-based Components of DYSLEXIA INSTRUCTION

Simultaneous, multisensory instruction (VAKT)

Systematic and cumulative

Explicit instruction

Diagnostic teaching to automaticity

- phonological awareness
- sound-symbol association
- syllabification
- orthography
- morphology
- syntax
- reading comprehension
- reading fluency
- written expression

Accommodations

- Designed to "level the playing field"
 - not a "set list"
 - identify specific strengths and abilities
 - identify specific weaknesses
 - extra time is always needed!

Accommodations to Consider

Student X will benefit from:

- receiving pre-teaching information at the beginning of a unit to allow him extended time (in advance) to organize, access, and learn the required information. Said pre-teaching information should include the following:
 - unit overview
 - key vocabulary words and teacher's definitions
 - list of assignments and due dates
 - study guides for quizzes and exams

b. receiving a written copy of assignments to increase organization and memory skills overall (preferably in advance through the use of the first accommodation)

c. receiving extended time to complete classroom tasks, as needed (preferably in advance through the utilization of the first accommodation)

d. having assignments broken down or "chunked" wherever appropriate to increase his independence level overall

e. having assignments shortened wherever appropriate to allow student to demonstrate mastery yet decrease the amount of time spent completing class assignments and homework

f. receiving a print copy of materials that he might be asked to copy from board or textbook

g. receiving a copy of teacher lecture notes to allow him to utilize his strong listening skills to learn rather than taking notes

- h. having timed tests replaced with alternative assessments (extended time or grading only the work completed) to allow him to show his knowledge without penalty for fluency and retrieval deficits
- i. lack of penalty for spelling errors on content assignments
- j. shortened spelling lists that follow consistent rule patterns

- k. using a calculator to check all math tasks to allow him to alert him to possible sign errors
- l. using a calculator to complete all math tasks to allow him to focus on learning math processes without penalty for math fact fluency/retrieval deficits
- m. using math process cue cards to provide an explicit, visual outline of math processes while completing all mathematics tasks

- n. taking tests orally and in a room with few distractions and with extended test-taking time to reduce anxiety and allow him to fully show his knowledge

ASSISTIVE TECHNOLOGY

Student X may benefit from:

- a. the utilization of assistive technology applications to allow him full access to age and grade-level curriculum, to include:

- 1. the utilization of an audio book system such as *Learning Ally* or *Bookshare* to complete reading assignments at school and home (textbooks, novels, pleasure reading) to allow him equal access to grade-level and interest-level reading material
- 2. the utilization of a scanning pen such as the C-PEN ReaderPen to assist with classroom reading, reading response, and testing tasks

- 3. training in the utilization of assistive technology applications (speech-to-text, text-to-speech, and concept-mapping) for written expression tasks to assist his in organizing and expressing his thoughts, to provide a guideline for editing, and to help him more easily produce a final project with reduced anxiety and frustration levels.

Recommended applications include:

- a) *VoiceDream Writer or Speech to Text* (for tests and/or written expression tasks of more than one sentence)
- b) *Adobe Acrobat Reader or SnapType Pro* (for worksheets or fill-in-the-blank tests)
- c) *Inspiration Maps* (concept-mapping for organization and study guides)

Why?

Sophie

<https://youtu.be/OLwCLPqzhqE>

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