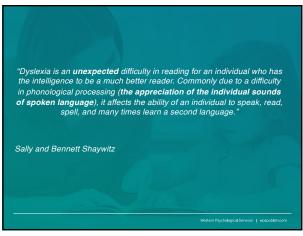


Learning Objectives By actively engaging with the content of this session, participants will: Acquire knowledge and further understanding on the characteristics of and assessment considerations for dyslexia . Identify key features of the Tests of Dyslexia (TOD), including its principles of use, administration procedures, scoring/interpretation guidelines and psychometric properties • State the relevance of using the TOD for comprehensive evaluations



Definition of Dyslexia

5 6

Definition of Dyslexia

International Dyslexia Association:

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.

Source: Adopted by the IDA Board of Directors, Nov. 12, 2002.

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SC ACT 213 (2018) & Dyslexia Handbook (2020)

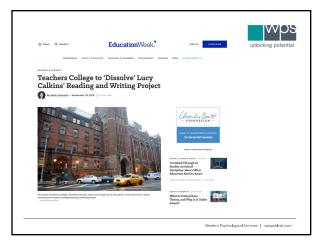
- A neurobiological learning disability characterized by inefficient decoding, compromised fluency, and inadequate comprehension
- Difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction
- Secondary consequences may include problems in reading comprehension and writing composition, as well as social and emotional impacts



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SC Dyslexia Handbook (cont.)

Comprehensive and systematic assessment practices:

Universal screening to identify risk, intervention, and curriculum effectiveness

Progress monitoring to determine response

Diagnostic assessment to identify learning strengths and weaknesses, as well as underlying root causes

• Summative assessment to valuate instructional outcomes

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SC Dyslexia Handbook (cont.) Assessment Type Universal Screeners Brief, standardized and quick to grade All students, three times a year Benchmarks are used to predict later reading success Deeply dive into one area Students below benchmark One-on-one assessment Identify skills deficits and form intervention groups Cycle of teaching, testing, regrouping ... Monitor only the targeted skill Used to plan instructional support Answer: Did it work? How do we know? Can we move to the next skill?

Early diagnosis of dyslexia is essential
 Reading difficulties are prevalent
 80% of all individuals with SLD
 5–8% of school population
 There is a need for universal screening of dyslexia
 There is a need for comprehensive evaluation to eliminate multiple tools and norm groups

Importance of Reading

11 12

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Characteristics of Dyslexia

- Primary reading/spelling characteristics of dyslexia:
 - Difficulty reading words in isolation
 - Difficulty accurately decoding unfamiliar words
 - Difficulty with oral reading (slow, inaccurate, or labored without
 - Difficulty spelling

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Characteristics of Dyslexia (cont.)

- The reading/spelling characteristics are most often associated with the following:
 - Segmenting, blending, and manipulating sounds in words (phonemic awareness)
 - · Learning the names of letters and their associated sounds
 - · Holding information about sounds and words in memory (phonological memory)
 - Rapidly recalling the names of familiar objects, colors, or letters of the alphabet (rapid naming)

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Characteristics of Dyslexia (cont.)

- Variable difficulty with aspects of reading comprehension
- Variable difficulty with aspects of written language
- · Limited vocabulary growth due to reduced reading experiences



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English and Spanish Characteristics

| English | Spanish |
|---|---|
| Phonological awareness | Phonological awareness—may be less pronounced |
| Rapid naming | Rapid naming |
| Regular/irregular decoding | Decoding-fewer "irregular words" in Spanish |
| Fluency | Fluency—often a key indicator |
| Spelling —may show fewer errors than in En still more than students that do not have dy | |

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English and Spanish (cont.)

"Children who are learning English are just as likely to have dyslexia as their native-English speaking counterparts. Dyslexia might appear in the native language quite as vividly as it will when they attempt to learn English... Educators must determine if dyslexia is a possibility, so the students' ability to verbally manipulate the sounds in their native languages, otherwise known as phonemic awareness, must be assessed. Brown (2008) suggested that students with below average phonemic awareness in their native languages will have difficulty learning a new language. Identification of dyslexia in an English language learner (ELL) is a complicated procedure. Many factors need to be ruled out. For example, the lack of opportunity to learn in native languages or the lack of home support in learning English needs to be investigated. Ortiz et al (2002) reported that ELL students who are struggling to learn English and have some foundation in reading in their native language should receive direct instruction that includes speech perception, phoneme awareness, and sound-symbol connections." (Hurley, 2014) "Children who are learning English are just as likely to have dyslexia as

(South Carolina Department of Education, 2020)

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Common Risk Factors Associated with Dyslexia: Preschool

- · Delay in learning to talk
- · Difficulty with rhyming
- Difficulty pronouncing words (e.g., "pusgetti" for "spaghetti," "mawn lower" for "lawn mower")
- Poor auditory memory for nursery rhymes and chants
- Difficulty adding new vocabulary words
- Inability to recall the right word (word retrieval)
- Trouble learning and naming letters and numbers and remembering the letters in his/her name
- Aversion to print (e.g., doesn't enjoy following along if a book is read

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17 18

Common Risk Factors Associated with Dyslexia: Kindergarten and 1st Grade

- Difficulty breaking words into smaller parts, or syllables (e.g., "baseball" can be pulled apart into "base" "ball" or "napkin" can be pulled apart into "nap" "kin")
- Difficulty identifying and manipulating sounds in syllables (e.g., "man" sounded out as /m/ /ă/ /n/)
- Difficulty remembering the names of letters and recalling their corresponding sounds
- Difficulty decoding single words (reading single words in isolation)
- Difficulty spelling words the way they sound (phonetically) or remembering letter sequences in very common words seen often in print (e.g., "sed" for "said")

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Common Risk Factors Associated with Dyslexia: 2nd and 3rd Grade

- Difficulty recognizing common sight words (e.g., "to," "said," "been")
- Difficulty decoding single words
- Difficulty recalling the correct sounds for letters and letter patterns in reading
- Difficulty connecting speech sounds with appropriate letter or letter combinations and omitting letters in words for spelling (e.g., "after" spelled "eftr")
- Difficulty reading fluently (e.g., reading is slow, inaccurate, and/or without expression)
- Difficulty decoding unfamiliar words in sentences using knowledge of phonics

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unlocking potential

Common Risk Factors Associated with Dyslexia: 2nd and 3rd Grade (cont.)

- Reliance on picture clues, story theme, or guessing at words
- Difficulty with written expression



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Common Risk Factors Associated with Dyslexia: 4th Through 6th Grade

- Difficulty reading aloud (e.g., fear of reading aloud in front of classmates)
- Avoidance of reading (particularly for pleasure)
- Difficulty reading fluently (e.g., reading is slow, inaccurate, and/or without expression)
- Difficulty decoding unfamiliar words in sentences using knowledge of phonics
- Acquisition of less vocabulary due to reduced independent reading
- Use of less complicated words in writing that are easier to spell than more appropriate words (e.g., "big" instead of "enormous")
- Reliance on listening rather than reading for comprehension

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Common Risk Factors Associated with Dyslexia: Middle and High School

- Difficulty with the volume of reading and written work
- Frustration with the amount of time required and energy expended for reading
- Difficulty reading fluently (e.g., reading is slow, inaccurate, and/or without expression)
- Difficulty decoding unfamiliar words in sentences using knowledge of phonics
- Difficulty with written assignments
- Tendency to avoid reading (particularly for pleasure)
- Difficulty learning a foreign language

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Current Dyslexia Evaluations

- Use of Multiple Tests
 - Different norm samples
 - Different age and grade ranges
- Different types of test scores

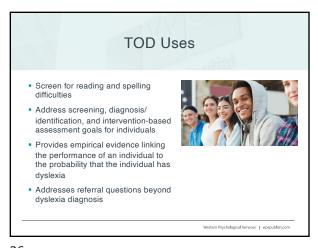
Access to various tests

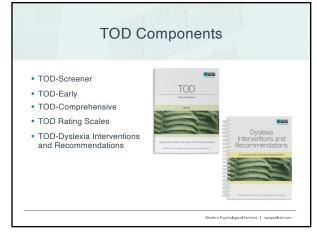


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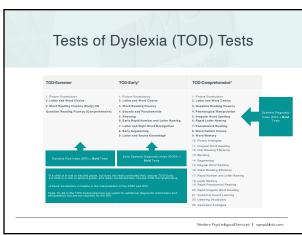


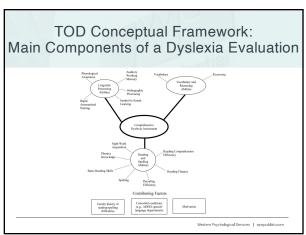






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29 30

Reading and Spelling Skills

- Reading and spelling skills measured by the TOD:
 - Sight Word Acquisition
 - Irregular word reading (untimed and timed)
 - Phonics Knowledge
 - Pseudoword reading (untimed and timed)
 - Spelling (regular and exception words)
 - Reading Rate (Oral Reading Fluency [timed])
 - Reading Comprehension Efficiency (timed passage reading with questions)

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Linguistic Processing Skills

- Linguistic processing skills measured by the TOD:
 - Phonological Awareness
 - Blending and Segmenting
 - Manipulation
 - Rapid Automatized Naming (RAN)
 - Letters
 - Numbers
 - Working Memory

32

34

- Orthographic Processing
- Visual-Verbal Paired-Associate Learning

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Vocabulary and Reasoning Skills

- Abilities that do not require reading or spelling
- Oftentimes, people with dyslexia have average or above average vocabulary and reasoning skills
- Comparing results from this domain with the other two can be useful in making a diagnosis of/identifying dyslexia



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TOD Users

- Examples of professionals likely to use the components:
 - Classroom teachers (TOD-S)
 - Reading specialists/interventionists/coaches
 - Special educators/educational diagnosticians
 - School psychologists/psychologists/neuropsychologists
 - Speech and Language Pathologists
 - Professionals/Paraprofessionals with training in assessment

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TOD Rating Scales

TOD Rating Scales

- Grade K-Adult (ages 5 years, 0 months-89 years, 11 months)
- Online administration and scoring
 - Parent/Caregiver Form
 - English and Spanish versions
 - Teacher Form
 - Self Form (for TOD-C)
 - Yields T-Scores

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35 36

TOD Rating Scales (cont.)



- Items are designed to elicit relevant background/history and content focusing on:
 - Motivation for Reading
- Rapid Automatized Naming
- General Reasoning
- Memory
- Verbal Comprehension
- Basic Reading SkillsReading Fluency
- Orthographic ProcessingPhonological Awareness
- Reading Comprehension
- Spelling

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TOD-C Rating Scales

- TOD-C Self-Rating Scale: 39 items
 - Because I read slowly, I have trouble understanding what I read (Reading Fluency, Reading Comprehension)
- TOD-C Teacher Rating Scale: 34 items
 - Can blend separate sounds to make a word (e.g., /m/ /a/ /t/ = mat)
 (Phonological Awareness, Basic Reading Skills)
- TOD-C Parent/Caregiver Rating Scale: 34 items
 - Gets confused by little words that look alike (e.g., was and saw; who and how) (Orthographic Processing)

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38

TOD-E Rating Scales

- TOD-E Teacher Rating Scale: 32 items
 - Can write most letters and a few simple words (e.g., A, B, C, I, see) (Spelling)
- TOD-E Parent/Caregiver Rating Scale: 37 items
 - Has trouble saying the alphabet in order (Memory)



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TOD Rating Scales Dyslexia Risk Categories

| Risk | Rating Scale T-Scores |
|--|--------------------------|
| Low to Moderate Risk* (About 84% of the population scores in this range) | 59 and below |
| High Risk (About 14% of the population scores in this range) | 60-69 |
| Very High Risk (Less than 2% of the population scores in this range) | 70 and above |
| ow risk at lower end of range and moderate risk at higher end range. | |

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TOD-C Rating Scales Predict Group Membership

Reading Disability versus Matched Control

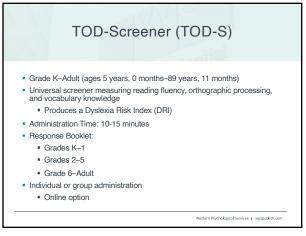
- Each of the TOD-C Rating Scales provides statistically significant improvement over chance in detecting reading disability status
- All three rating scales provide impressive correct diagnostic decisions, 77%, 82%, and 83% for the Parent/Caregiver, Teacher, and Self-Rating Scales, respectively
- TOD-C Rating Scales are credible predictors of students who have a learning disability in reading and, consequently, those who most likely have dyslexia

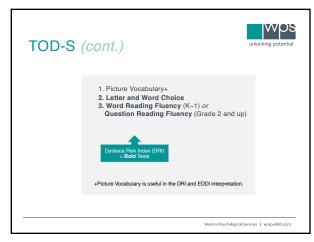
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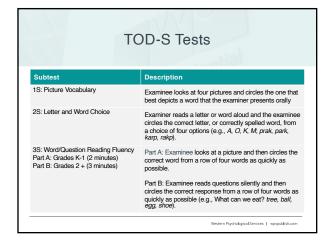
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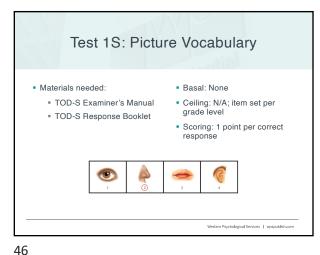


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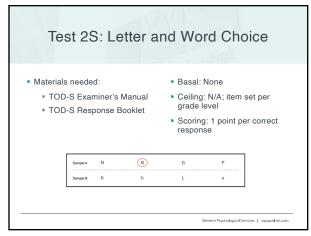


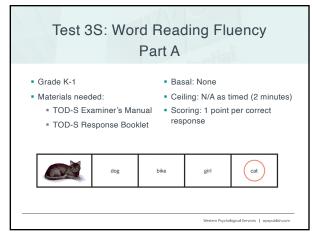




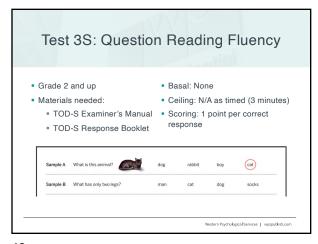


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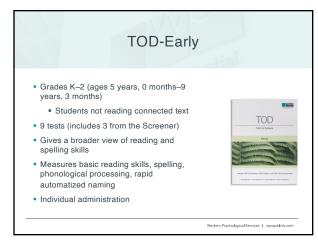


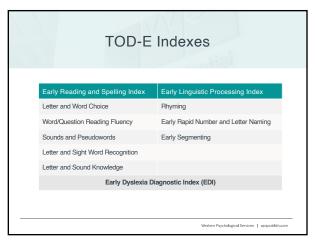


47 48









51 52

| Early Sight Word | Early Phonics | Early Basic | Early Phonologica |
|------------------|------------------|-----------------------|-------------------|
| Acquisition | Knowledge | Reading Skills | Awareness |
| Letter and Word | Sounds and | Letter and Sight Word | Rhyming |
| Choice | Pseudowords | Recognition | |
| Letter and Sight | Letter and Sound | Letter and Sound | Early Segmenting |
| Word Recognition | Knowledge | Knowledge | |

TOD-E Tests

Subtest

4E. Sounds and Pseudowords

1. Examinee points to or says the number of the picture that begins with the sound the examiner says.

2. Examinee tells the sound that a letter makes.

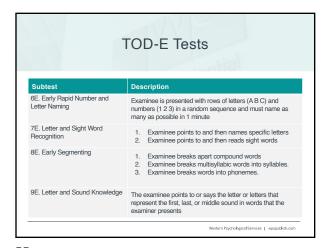
3. Examinee reads aloud phonically regular nonsense words

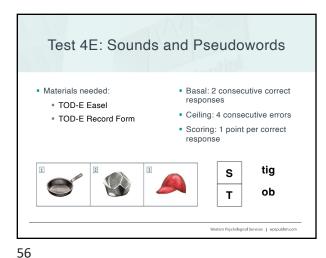
5E. Rhyming

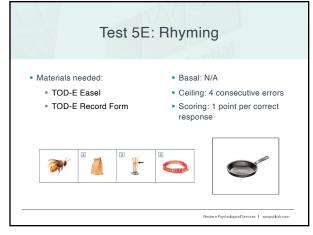
Examinee points to or says the number of a picture that rhymes with a word that the examiner presents orally.

Examinee provides a rhyming word for a word that the examiner presents orally.

53 54







Test 6E: Early Rapid Number and Letter Naming

Materials needed:
TOD-E Easel
TOD-E Record Form

Basal: Item 1
Ceiling: N/A as timed (1 minute)
Scoring: 1 point per correct response

A 3 C 1 2 B

57

Test 7E: Letter and Sight Word Recognition

• Materials needed:
• TOD-E Easel
• TOD-E Record Form

• Basal: 2 consecutive correct responses
• Ceiling: 4 consecutive errors
• Scoring: 1 point per correct response

C D A

in the to

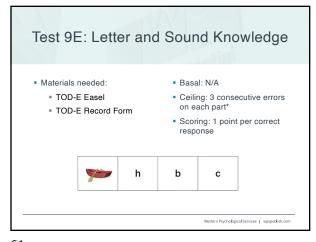
Test 8E: Early Segmenting

• Materials needed:
• TOD-E Easel
• TOD-E Record Form

• Basal: 2 consecutive correct responses
• Ceiling: 4 consecutive errors
• Scoring: 1 point per correct response

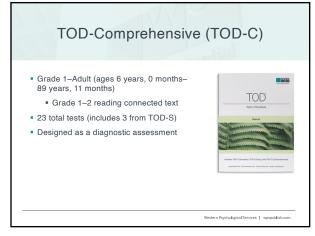
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Tests of Dyslexia—Comprehensive

61 62

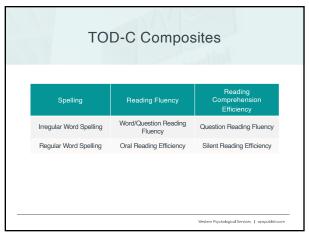


TOD-C Indexes

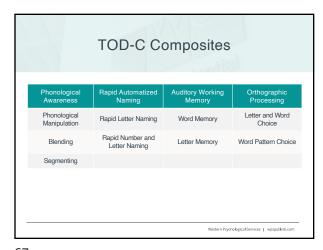
Reading and Spelling Index
Letter and Word Choice Phonological Manipulation
Word/Question Reading Fluency Rapid Letter Naming
Irregular Word Spelling Word Pattern Choice
Pseudoword Reading Word Memory
Dyslexia Diagnostic Index (DDI)

63 64

| Sight Word Acquisition | Phonics Knowledge | Basic Reading Skills | Decoding Efficienc |
|---------------------------------|-----------------------------|---------------------------|---------------------------------|
| Irregular Word Reading | Pseudoword Reading | Pseudoword Reading | Rapid Pseudoword Reading |
| Rapid Irregular Word Reading | Rapid Pseudoword Reading | Irregular Word Reading | Rapid Irregular Word Reading |
| | | | |



65 66



TOD-C Composites

Vocabulary
Reasoning
Picture Vocabulary
Picture Analogies
Picture Vocabulary
Picture Analogies
Picture Analogies
Picture Analogies
Picture Analogies
Picture Analogies
Listening Vocabulary
Geometric Analogies

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67 68

| | TOD-C Tests |
|-------------------------------|---|
| Subtest | Description |
| 4C. Phonological Manipulation | Substitution: examinee changes a word, syllable, or phoneme to make a new word |
| | Deletion: examinee takes away a word, syllable, or phoneme to make a new word |
| 5C. Irregular Word Spelling | Examiner orally presents words that contain irregular sound symbol correspondences of increasing difficulty, and the examinee spells them in the Response Booklet |
| 6C. Rapid Letter Naming | Examinee is presented with rows of confusable letters (e.g. b , d , p) in a random sequence and must name the letters a rapidly as possible in 1 minute |
| 7C. Pseudoword Reading | Examinee says the sounds associated with letters and then reads aloud pseudowords |

TOD-C Tests (cont.)

Subtest

8C. Word Pattern Choice

Examinee looks at a row of four letter groups (e.g., bho, wob, ohb, obh) and chooses the one that conforms to spelling patterns of typical of real English words

9C. Word Memory

Examinee listens to a string of words and then repeats the words in reverse order

10C. Picture Analogies

Examinee selects one of four response options that complete a picture analogy presented in an A is to B as C is to ? matrix format

11C. Irregular Word Reading

Examinee first reads aloud letters and then words that contain irregular sound—symbol correspondences of increasing difficulty

12C. Oral Reading Efficiency

Examinee reads a grade-level passage aloud for 1 minute.

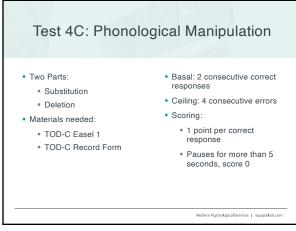
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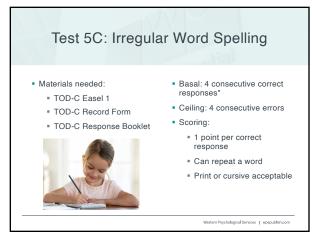
| Subtest | Description |
|--|---|
| 13C. Blending | Examinee blends compound words, syllables, and phonem to make a whole word |
| 14C. Segmenting | Examinee breaks apart compound words, syllables, and phonemes. |
| 15C. Regular Word Spelling | Examinee spells words presented orally by the examiner containing regular sound–symbol correspondences that increase in difficulty. |
| 16C. Silent Reading Efficiency | Examinee silently reads passages of increasing difficulty and answers comprehension questions in the Response Booklet while being timed |
| 17C. Rapid Number and Letter Naming | Examinee is presented with rows of three numbers and three uppercase letters (e.g., 93 E 6 F L) and must name them as quickly as possible in 1 minute |

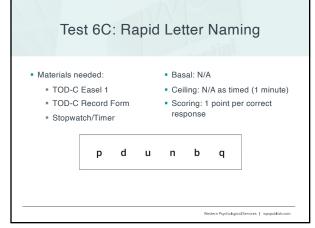
TOD-C Tests (cont.) Subtest Description 18C. Letter Memory Examinee listens to a string of letters and then repeats the letters in reverse order. 19C. Rapid Pseudoword Reading Examinee says the sounds associated with letters and then reads nonsense words as quickly as possible in 1 minute 20C. Rapid Irregular Word Reading Examinee reads aloud words that contain irregular soundsymbol correspondences of increasing difficulty in 1 minute 21C. Symbol to Sound Examinee is presented with symbols that represent letter sounds and must blend the sounds into real words. 22C. Listening Vocabulary Examinee says (or points to) one of four words that best answers a question that the examiner reads orally 23C. Geometric Analogies Examinee selects one of four response options that completes a symbolic/abstract analogy presented in an A is to B as C is to ? matrix format

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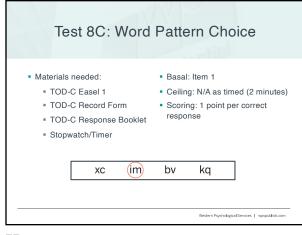


Test 7C: Pseudoword Reading

Materials needed:
TOD-C Easel 1
TOD-C Record Form

Basal: 2 consecutive correct responses
Ceiling: 5 consecutive errors
Scoring:
1 point per correct response
Pauses for more than 5 seconds, score item 0

75



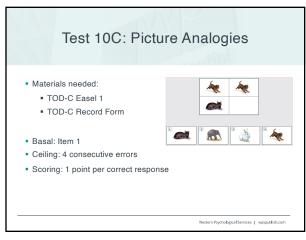
Test 9C: Word Memory

Materials needed:
TOD-C Easel 1
TOD-C Record Form

Basal: Item 1
Ceiling: 5 consecutive errors
Scoring:
1 point per correct response
Pauses for more than 5 seconds, score item 0

77 78

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79 80

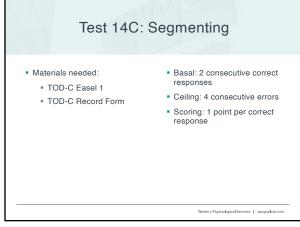
Test 12C: Oral Reading Efficiency Materials needed: Scoring: TOD-C Easel 1 Number of words read correctly, Number of TOD-C Record Form Stopwatch/Timer Errors are substitutions and omissions Basal: N/A Word not read after 3 • Ceiling: N/A as timed (1 minute) seconds, tell them the word and mark as incorrect Western Psychological Services | wpspublish.com

Page 13C: Blending

Materials needed:
TOD-C Easel 1
TOD-C Record Form
TOD-C Audio Recording

Basal: 2 consecutive correct responses
Ceiling: 4 consecutive errors
Scoring: 1 point per correct response

81

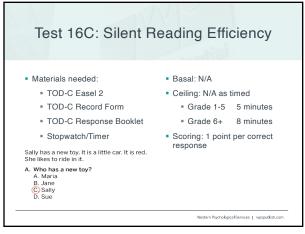


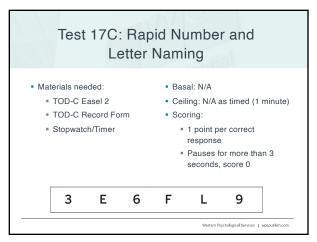
Page 15C: Regular Word Spelling

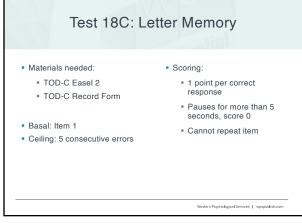
Basal: 4 consecutive correct responses*
Ceiling: 4 consecutive errors
Ceiling: 4 consecutive errors
Scoring:
1 point per correct response
Can repeat a word
Print or cursive acceptable

83 84

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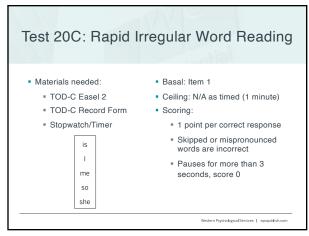


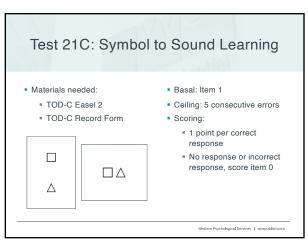




Test 19C: Rapid Pseudoword Reading Materials needed: Basal: Item 1 TOD-C Easel 2 • Ceiling: N/A as timed (1 minute) TOD-C Record Form Stopwatch/Timer 1 point per correct response Skipped or mispronounced words are incorrect ip Pauses for more than 3 ab seconds, score 0 san Western Psychological Services | wpspublish

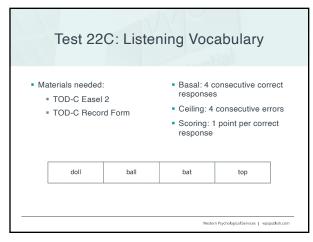
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Test 23C: Geometric Analogies

Materials needed:
TOD-C Easel 2
TOD-C Record Form

Basal: Item 1
Ceiling: 5 consecutive errors
Scoring: 1 point per correct response

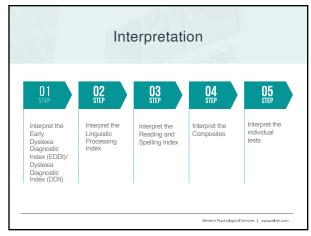
92 93



Blueprint for the TOD

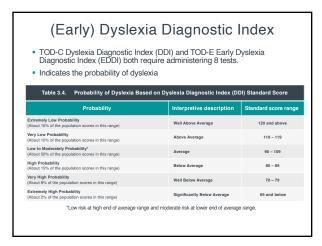
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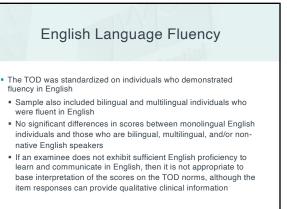
94 95



Dyslexia Risk Index Letter and Word Choice and Word or Question Reading Fluency from the TOD-S yield the Dyslexia Risk Index (DRI). Indicates the need for further evaluation DRI scores in the at-risk range suggest further testing is needed with the TOD-C or TOD-E. No or Low Risk 110-130 Possible Risk* Average 90-109 At-Risk Below Average 89 and below *Lower possible risk at high end of average range and higher possible risk at lower end of average range. Western Psychological Services | wpspublish

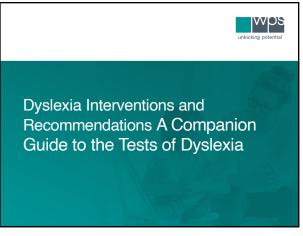
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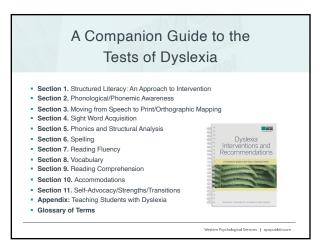




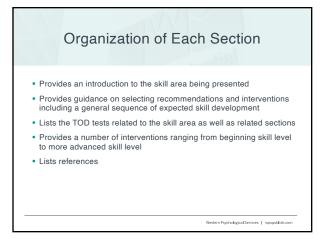
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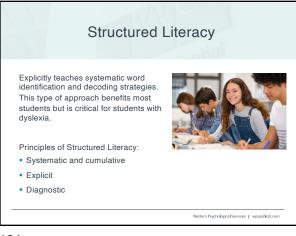


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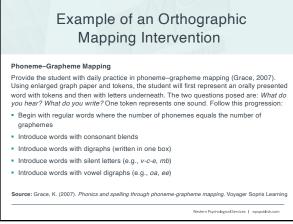




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Appendix

Teaching Students with Dyslexia

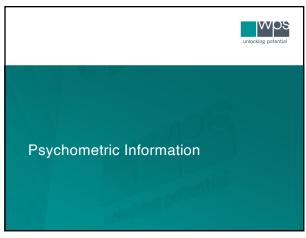
Designed to be a handout to share with teachers

Provides a general overview of the types of interventions, accommodations, and modifications that students with dyslexia often need

The eight sections of the appendix also provide a framework for understanding the rationale for these interventions

You may focus on just one section that applies to a certain student with a specific need or provide the entire appendix

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Rating Scales: Standardization Sample

TOD-C Child Sample
Parent/Caregiver Rating n = 997Teacher Rating n = 448Self-Rating n = 1,066TOD-E
Parent/Caregiver Rating n = 154Tob-C Adult Sample
Self-Rating n = 267

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Rating Scales: Reliability

- TOD-C internal consistency: .94 to .97
- TOD-C inter-rater correlations among the scales range from .77 to .81
- TOD-E internal consistency: .95 to .97
- TOD-E inter-rater correlation (Parent/Caregiver to Teacher):

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Rating Scales: Validity

- Correlations between TOD-C Rating Scales and key scores from the TOD include:
 - Linguistic Processing Index (r = -.42 to -.55)
 - Reading and Spelling Index (r = -.51 to -.84)
 - Dyslexia Risk Index (derived from 2 screening tests) (r = -.65 to -.71);
 - Dyslexia Diagnostic Index (derived from 4 linguistic and 4 reading/spelling tests) (r = -.64 to -.69).

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| | | Predi | cted | |
|----------|---------------|---------------|------------|-----------|
| | | No Reading LD | Reading LD | Percentag |
| | | - | _ | Correct |
| Observed | No Reading LD | 25 | 8 | 75.8 |
| | Reading LD | 7 | 26 | 78.8 |
| Total | | | | 77.3 |

TOD-C Classification Table for Teacher Rating Scale Prediction of Reading LD

| | | Predi | cted | |
|----------|---------------|---------------|------------|-----------------------|
| | | No Reading LD | Reading LD | Percentage Correct |
| Observed | No Reading LD | 26 | 7 | 78.8 |
| | Reading LD | 5 | 28 | 84.8 |
| Total | | | | 81.8 |

TOD-C Classification Table for Self-Rating Scale Prediction of Reading LD

| | | ricui | cieu | |
|----------|---------------|---------------|------------|------------|
| | | No Reading LD | Reading LD | Percentage |
| | | | | Correct |
| Observed | No Reading LD | 28 | 5 | 84.8 |
| | Reading LD | 6 | 27 | 81.8 |
| Total | - | | | 83.3 |

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Table 5.27 Conditional Probability Analysis for Detection of Clinical Cases Using the TOD-S Dyslexia Risk Index (DRI)

| | Standard Score | | | |
|------|----------------|-------------|-------------|--|
| Scor | e | | | |
| SS c | utoff | Sensitivity | Specificity | |
| 70 | | .40 | .99 | |
| 75 | | .58 | .99 | |
| 80 | | .80 | .99 | |
| 85 | | .93 | .96 | |
| 90 | | .99 | .87 | |
| | | | | |

Note. The analyzed sample included 179 clinically diagnosed children and 1,486 typically developing children.

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Table 5.28. Conditional Probability Analysis for Detection of Clinical Cases Using the TOD-C Dyslexia Diagnostic Index (DDI)

| Score | Standard Sc | ore |
|-----------|-------------|-------------|
| SS cutoff | Sensitivity | Specificity |
| 70 | .40 | .99 |
| 75 | .54 | .99 |
| 80 | .78 | .97 |
| 85 | .94 | .91 |
| 90 | .99 | .82 |

Note. The analyzed sample included 160 clinically diagnosed children and 1,285 typically developing children.

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Table 5.29. Conditional Probability Analysis for Detection of Clinical Cases Using the TOD-E Early Dyslexia Diagnostic Index (E-DDI)

| | Standard Sc | ore |
|--------------------|-----------------------------------|-------------------------------|
| Score | | |
| SS cutoff | Sensitivity | Specificity |
| 70 | .34 | .99 |
| 75 | .63 | .99 |
| 80 | .80 | .99 |
| 85 | .98 | .94 |
| 90 | .99 | .84 |
| Note. The analyzed | d sample included 21 clinically d | liagnosed children and 249 ty |

typically developing children.

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Standardization Standardization sample included 2,518 typically developing ■ 1,401 TOD-C child 342 TOD-C adult ■ 1,723 TOD-S Child 347 TOD-S and TOD-C Adult · Represented U.S. census in gender, Hispanic status, race, geographic region, household income, parents'

TOD Standardization Samples

- Standardization and clinical samples (Total; 2,518 participants)
 - TOD-S child sample: 1,723 (337 also in clinical sample)
 - TOD-S and TOD-C adult sample: 347 (64 also in clinical sample)
 - TOD-C child sample: 1,401 children (272 also in clinical sample)
 - TOD-E: 342 (70 also in clinical sample)
- Demographics match well to the U.S. Census figures; most of the match data show that samples exceed the guidelines (i.e., they are within 5% of the proportions shown within the most recent Census

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participants

status

■ 342 TOD-E

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Clinical Sample

- Clinical samples included:
 - Intellectual Disability
 - Developmental Disability

educational level, and exceptionality

- · Autism spectrum disorder
- ADHD
- Language disorder
- Reading disability/dyslexia
- Speech disorder
- Emotional or behavior disorder
- Hearing impaired
- Visually impaired
- Other physical disability

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Reliability

- Internal consistency reliability of tests, indexes, and composites almost all > .80
- Test-retest reliability for all tests, indexes, and composites ranges from .70 to .97 (median .88); most effect sizes of change from first to second testing are small

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Reliability (cont.)

- Internal consistency ranges for DRI, DDI, and EDDI
 - TOD-S: DRI, Children by grade, .81 .95, 9 of 13 > .92
 - TOD-S: DRI, Adults by 6 ages, .85—.94
 - TOD-C: DDI, Children by grade, .94—.98
 - TOD-C: DDI, Adults by age, .92-.96
 - TOD-E: EDDI, Children by grade, .97—.98

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Validity—Content Validity

- Developmental progression of means by age fits with expectations of skill growth and mastery. Some skills are mastered earlier (e.g., phonological awareness), and some continue to grow (e.g., vocabulary).
- Similar tests were more highly correlated than dissimilar tests (e.g., Phonemic Manipulation and Rapid Number and Letter Naming correlate at .30, while Regular Word Spelling and Irregular Word Spelling correlate at .81).

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Validity—Confirmatory Factor Analysis

- DDI and EDDI are supported as having good model fit.
- RSI/ERSI and LPI/ELPI are also supported as two indexes loading onto DDI and EDDI.
- Results support strength of index interpretation.

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Convergent Validity

- Most correlations between tests of similar constructs were moderate, indicating support for the measurement of the TOD tests.
 The convergent validity tests are:
 - TOD-C:
 - WJ IV Cognitive
 - WJ IV Achievement
 - CASL-2
 - CTOPP-2
 - TOWRE-2
 - TOC-2 • UNIT-GAT
- TOD-E:
 - · WJ IV Achievement
 - · CASL-2
 - · CTOPP-2

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Detection of Ability and Skill Weakness (Sensitivity and Specificity)

- Sensitivity and specificity analyses examine how well a test categorizes individuals into groups at a certain score.
- At a cutoff score of 80:
 - The TOD-S Dyslexia Risk Index discriminates individuals with a reading disability from typically developing individuals with sensitivity of > = .80 and specificity of > = .99
 - The TOD-C Dyslexia Diagnostic Index does so with sensitivity of >= .78 and specificity of >= .97
 - The TOD-E Early Dyslexia Diagnostic Index does so with sensitivity of > = .80 and specificity of > = .99

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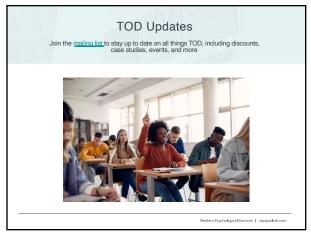
Before Using a New Test

- Study the manual and familiarize yourself with the kit's components and materials
- Ask a colleague or supervisor if you have questions
- Thoroughly practice giving and scoring the subtest items
- Administer the test to at least three persons before using it in a real situation
- Have an experienced practitioner observe your practice testing and review your scoring and interpretation

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