1
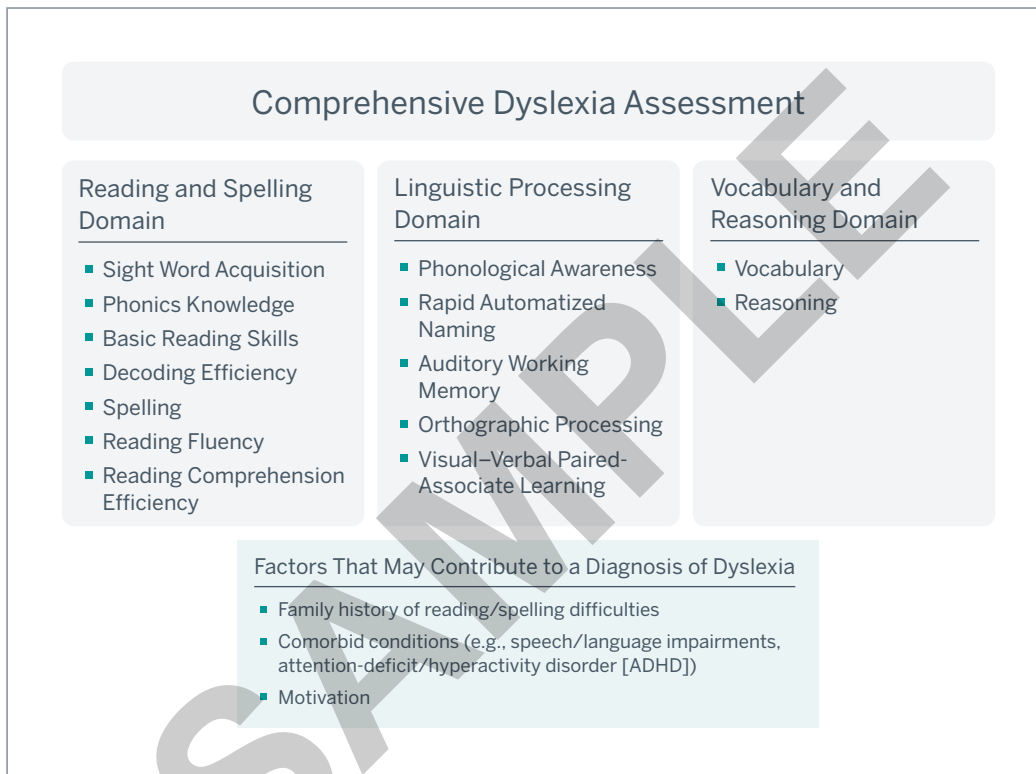
Introduction

The lack of a unified construct of dyslexia can lead to inconsistencies in assessments and interventions.… This has potential serious consequences for students who need remedial reading instruction… Therefore clinicians, schools and researchers need to cooperate in developing tools with good psychometric properties and based on recent research on dyslexia. (Andresen & Monsrud, 2021, p. 11)

The Tests of Dyslexia (TOD) was developed to address the need for a psychometrically and theoretically sound means of assessing for dyslexia or a specific learning disability in reading. The TOD provides measures to address screening, diagnosis, and intervention-based assessment goals starting in kindergarten and extending through adulthood. It was designed to fulfill the need to be proactive in screening and identifying individuals with dyslexia. As a comprehensive assessment tool, it addresses three essential areas for the effective assessment of dyslexia:

1. *Screening*: The TOD provides an efficient individual or group-administered screening measure to identify individuals who are at risk for reading difficulty.

2. *Comprehensive individual assessment*: The TOD provides a comprehensive individually administered battery of tests to identify individuals who have dyslexia, their strengths and weaknesses, and their reading-related skill areas most in need of intervention, as well as an accompanying intervention guide.

3. *Behavioral information*: The TOD includes co-normed self, parent/caregiver, and teacher rating scales that provide a quantitative score indicating risk of dyslexia, and qualitative information regarding reading, spelling, and related skills.

To guide the design of the TOD, a conceptual framework that characterizes the main components of dyslexia was developed. As depicted in Figure 1.1, a comprehensive dyslexia assessment measures skills and abilities in three broad domains: reading and spelling, linguistic processing, and vocabulary and reasoning. The reading and spelling domain represents skills that are typically impacted negatively when an individual has dyslexia. The linguistic processing domain assesses abilities that underlie the development of reading and spelling skills. Poor performance in this domain indicates the individual is at risk for dyslexia. The vocabulary and reasoning domain assesses abilities that do not require reading or spelling. Comparing the results from this domain with results from the other two domains can be useful in making a diagnosis of dyslexia.

Comprehensive Dyslexia Assessment

Reading and Spelling Domain

- Sight Word Acquisition
- Phonics Knowledge
- Basic Reading Skills
- Decoding Efficiency
- Spelling
- Reading Fluency
- Reading Comprehension Efficiency

Linguistic Processing Domain

- Phonological Awareness
- Rapid Automatized Naming
- Auditory Working Memory
- Orthographic Processing
- Visual–Verbal Paired-Associate Learning

Vocabulary and Reasoning Domain

- Vocabulary
- Reasoning

Factors That May Contribute to a Diagnosis of Dyslexia

- Family history of reading/spelling difficulties
- Comorbid conditions (e.g., speech/language impairments, attention-deficit/hyperactivity disorder [ADHD])
- Motivation

Figure 1.1. TOD Conceptual Framework: Main Components of a Dyslexia Evaluation

In addition to assessment of these domains, three important factors may contribute to a diagnosis of dyslexia: family history of reading/spelling difficulties, comorbid conditions, and motivation. Typically, these contributing factors are characteristics of the person and/or the environment that influence the etiology or trajectory of dyslexia, either positively or negatively. Information about these factors can be obtained from personal interview, as well as from the TOD Rating Scales completed by the examinee, parent/caregiver(s), and/or teacher(s). Table 1.1 illustrates the clinical pattern of dyslexia as operationalized by the TOD.

Table 1.1. The Clinical Pattern of Dyslexia as Measured by the TOD

Significant reading and spelling difficulties[a]

Difficulty reading nonsense words (pseudowords)

Difficulty reading irregular words

Slow reading rate

Poor spelling

Low performance on one or more measures of linguistic processing abilities[b]

Phonological Awareness

Rapid Automatized Naming

Auditory Working Memory

Orthographic Processing

Visual–Verbal Paired-Associate Learning

Average or above performance on cognitive abilities[c]

Vocabulary

Reasoning

Additional risk factors gathered from rating scales and record review

Family history

Speech/Language impairments

Difficulties identified by parent/caregiver(s), teacher(s), and/or self

[a]Consider the student's age, prior reading interventions, and cognitive abilities. Twice-exceptional or high-ability students may have reading scores in the Average range but still perform well below expectations given their vocabulary and reasoning abilities.
[b]Some students with dyslexia may not have low performance on any of the linguistic processing abilities that are measured by the TOD.
[c]Many students with dyslexia will earn lower reading and spelling scores than they do on tests of cognitive ability (e.g., vocabulary and reasoning). Some students with dyslexia and another comorbid condition, such as a speech/language impairment, may not have such discrepancies.

TOD Organization

The TOD consists of three sets of direct assessment tests: the TOD-Screener (TOD-S), TOD-Comprehensive (TOD-C), and TOD-Early (TOD-E). Table 1.2 lists the tests that make up each of the batteries, as well as the abilities each test assesses. Table 1.3 provides brief descriptions of each of the TOD tests. In addition to the direct assessment tests, the TOD includes Parent/Caregiver, Teacher, and Self-Rating Scales.

Table 1.2. TOD Blueprint

Ability	TOD-Screener (TOD-S)	TOD-Comprehensive (TOD-C)[a]	TOD-Early (TOD-E)[a]
Reading and spelling			
Sight Word Acquisition	Letter and Word Choice (2S)	Irregular Word Reading (11C) Rapid Irregular Word Reading (20C)[b]	Letter and Sight Word Recognition (7E)
Phonics Knowledge		Pseudoword Reading (7C) Rapid Pseudoword Reading (19C)[b]	Sounds and Pseudowords (4E) Letter and Sound Knowledge (9E)
Basic Reading Skills		Irregular Word Reading (11C) Pseudoword Reading (7C)	Letter and Sight Word Recognition (7E) Letter and Sound Knowledge (9E)
Decoding Efficiency		Rapid Irregular Word Reading (20C)[b] Rapid Pseudoword Reading (19C)[b]	
Spelling	Letter and Word Choice (2S)	Irregular Word Spelling (5C) Regular Word Spelling (15C)	
Reading Fluency	Word Reading Fluency (3Sa)[b] or Question Reading Fluency (3Sb)[b]	Oral Reading Efficiency (12C)[b]	
Reading Comprehension Efficiency	Word Reading Fluency (3Sa)[b] or Question Reading Fluency (3Sb)[b]	Silent Reading Efficiency (16C)[b]	
Linguistic processing			
Phonological Awareness		Phonological Manipulation (4C) Blending (13C) Segmenting (14C)	Early Segmenting (8E) Rhyming (5E)
Rapid Automatized Naming		Rapid Letter Naming (6C)[b] Rapid Number and Letter Naming (17C)[b]	Early Rapid Number and Letter Naming (6E)[b]
Auditory Working Memory		Word Memory (9C) Letter Memory (18C)	
Orthographic Processing	Letter and Word Choice (2S)	Word Pattern Choice (8C)[b]	
Visual–Verbal Paired-Associate Learning		Symbol to Sound Learning (21C)	
Vocabulary and reasoning			
Vocabulary	Picture Vocabulary (1S)	Listening Vocabulary (22C)	
Reasoning		Picture Analogies (10C) Geometric Analogies (23C)	

[a]The three screening tests (TOD-S) are also the first three tests in the TOD-C and the TOD-E. The TOD-S tests and abilities are included in both the TOD-C and TOD-E.
[b]Timed test.

Table 1.3. TOD Test Descriptions

Test		Description
TOD-Screener (TOD-S)		
1S	Picture Vocabulary	The examinee looks at four pictures and then circles the one that best depicts a word that the examiner presents orally.
2S	Letter and Word Choice	The examiner orally presents a letter or word, and the examinee circles the correct letter, or correctly spelled word, from a choice of four similar options (*e.g., N, B, G, P; shuger, sugar, shugar, suger*).
3S	Word or Question Reading Fluency	This section of the screener consists of two tests: Word Reading Fluency (3Sa) for Grades K–1, and Question Reading Fluency (3Sb) for Grade 2–Adult.
		Part A: Word Reading Fluency (3Sa). The examinee looks at a picture and then circles the correct corresponding word from a row of four words as quickly as possible. This test has a 2-minute time limit.
		Part B: Question Reading Fluency (3Sb). The examinee reads questions silently and then circles the correct response from a row of four words as quickly as possible (e.g., *Which one can you eat? rock, egg, cap, book*). This test has a 3-minute time limit.
TOD-Comprehensive (TOD-C)		
4C	Phonological Manipulation	This test consists of two subtests: Substitution and Deletion.
		Substitution: The examinee changes a word, syllable, or phoneme to make a new word.
		Deletion: The examinee takes away a word, syllable, or phoneme to make a new word.
5C	Irregular Word Spelling	The examiner orally presents words that contain irregular sound–symbol correspondences of increasing difficulty, and the examinee spells the words in the Response Booklet.
6C	Rapid Letter Naming	The examinee is presented with rows of confusable letters (e.g., *b, d, p*) in a random sequence and then must name the letters as quickly as possible. This test has a 1-minute time limit.
7C	Pseudoword Reading	The examinee says the sounds associated with letters and then reads aloud pseudowords.
8C	Word Pattern Choice	The examinee looks at a row of four groups of letters (e.g., *bho, wob, ohb, obh*) and then chooses as quickly as possible the one that conforms to spelling patterns typical of real English words. This test has a 2-minute time limit.
9C	Word Memory	The examinee listens to a string of words and then repeats the words in reverse order.
10C	Picture Analogies	The examinee selects one of four response options that completes a picture analogy presented in an *A is to B as C is to ?* matrix format.
11C	Irregular Word Reading	The examinee reads aloud words that contain irregular sound–symbol correspondences of increasing difficulty.
12C	Oral Reading Efficiency	The examinee is presented a grade-level passage to read aloud. The examiner marks any errors that are made. This test has a 1-minute time limit.
13C	Blending	The examinee blends compound words, syllables, and phonemes to make a whole word.
14C	Segmenting	The examinee breaks apart compound words, syllables, and phonemes.
15C	Regular Word Spelling	The examiner orally presents words that contain regular sound–symbol correspondences of increasing difficulty, and the examinee spells the words in the Response Booklet.
16C	Silent Reading Efficiency	The examinee silently reads passages of increasing difficulty and then answers comprehension questions in the Response Booklet while being timed. This test has a 5-minute (Grades 1–5) or 8-minute (Grade 6–Adult) time limit.
17C	Rapid Number and Letter Naming	The examinee is presented with rows of three numbers (*3, 6, 9*) and three uppercase letters (*E, F, L*) in a random sequence and then must name them as quickly as possible. This test has a 1-minute time limit.
18C	Letter Memory	The examinee listens to a string of letters and then repeats the letters in reverse order.
19C	Rapid Pseudoword Reading	The examinee says the sounds associated with letters and then reads aloud pseudowords as quickly as possible. This test has a 1-minute time limit.

Table 1.3. TOD Test Descriptions *(continued)*

	Test	Description
20C	Rapid Irregular Word Reading	The examinee reads aloud as quickly as possible words that contain irregular sound–symbol correspondences of increasing difficulty. This test has a 1-minute time limit.
21C	Symbol to Sound Learning	The examinee is presented with novel symbols that represent letter sounds and then must blend the sounds to pronounce real words.
22C	Listening Vocabulary	The examinee says (or points to) one of four words that best answers a question that the examiner presents orally.
23C	Geometric Analogies	The 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.

TOD-Early (TOD-E)

	Test	Description
4E	Sounds and Pseudowords	This test consists of three sections. In the first section, the examiner presents a sound orally, and the examinee says (or points to) the number of the picture that begins with that sound. In the second section, the examinee is shown a letter and then is asked to tell the sound that the letter makes. In the third section, the examinee reads aloud pseudowords.
5E	Rhyming	The examinee says (or points to) the number of a picture that rhymes with a word that the examiner presents orally. Later items ask the examinee to provide a rhyming word for a word that the examiner presents orally.
6E	Early Rapid Number and Letter Naming	The examinee is presented with rows of letters (*A, B, C*) and numbers (*1, 2, 3*) in a random sequence and then must name as many as possible. This test has a 1-minute time limit.
7E	Letter and Sight Word Recognition	This test consists of two sections. In the first section, the examinee points to and then names specific letters. In the second section, the examinee points to and then reads aloud sight words.
8E	Early Segmenting	This test consists of three sections. In the first section, the examiner orally presents a compound word, and the examinee says the two parts of the word. In the second section, the examiner orally presents a multisyllabic word, and the examinee says the syllables of the word. In the third section, the examiner orally presents a word, and the examinee says the phonemes of the word.
9E	Letter and Sound Knowledge	This test consists of three sections. The examinee says (or points to) the letter or letters that represent the first sound, then the last sound, and then the middle sound in words that the examiner presents orally.

Tests of Dyslexia–Screener (TOD-S; Ages 5 Years, 0 Months–89 Years, 11 Months; Grade Kindergarten–Adult)

This quick screener comprises three tests that can be administered individually or to a group in about 10–15 minutes and can be used with individuals in kindergarten through adulthood. The TOD-S provides a Dyslexia Risk Index (DRI), which can help determine whether a more in-depth assessment is needed. If an individual has a low DRI (indicating high risk) the examiner may administer additional tests from either the TOD-C (Grade 1–Adult) or the TOD-E (Grades K–2). TOD-S tests are also used within the TOD-C and TOD-E batteries to contribute to the index and composite scores.

Tests of Dyslexia–Comprehensive (TOD-C; Ages 6 Years, 0 Months–89 Years, 11 Months; Grade 1–Adult)

The TOD-C is designed to provide a comprehensive dyslexia assessment for individuals in early elementary school through adulthood. Two of the TOD-S tests plus six additional TOD-C tests are used to calculate three index scores. The tests from the reading and spelling domain and the linguistic processing domain that are the best predictors of dyslexia and represent key skills (Figure 1.1) form the Reading and Spelling Index (RSI) and the Linguistic Processing Index (LPI). These two indexes can be interpreted on their own and are combined to create the Dyslexia Diagnostic Index (DDI), the primary score in the TOD-C for determining the probability that the individual has dyslexia.

An additional 14 tests allow for further assessment of skills related to dyslexia. The 23 total TOD-S and TOD-C tests can be combined to yield 15 additional composites (seven in the reading and spelling domain, four in the linguistic processing domain, and four in the vocabulary and reasoning domain) that provide further information about specific skills and abilities relevant to dyslexia (Figure 1.2).

Figure 1.2. TOD-C Composites

Tests of Dyslexia–Early (TOD-E; Ages 5 Years, 0 Months–9 Years, 3 Months; Kindergarten–Grade 2)

The TOD-E is designed to provide an assessment of the early abilities that are the most salient indicators of dyslexia in young children. As such, it complies with guidelines in many states requiring more extensive screening/assessment for dyslexia in the early grades. Two of the TOD-S tests plus the six TOD-E tests are used to calculate three index scores. Five of the tests form the Early Reading and Spelling Index (ERSI), and three of the tests form the Early Linguistic Processing Index (ELPI). These two indexes can be interpreted on their own and are combined to create the Early Dyslexia Diagnostic Index (EDDI), the primary score in the TOD-E for determining the probability that the individual has dyslexia.

The nine total TOD-E tests (which include the three TOD-S tests) can be combined to yield four additional composites (three in the reading and spelling domain and one in the linguistic processing domain) that provide further information about specific skills relevant to dyslexia (Figure 1.3). On the TOD-E, the Picture Vocabulary (1S) test is the single measure of vocabulary.

The TOD-E and TOD-C can both be used for individuals in first and second grade. The TOD-E is appropriate for prereaders or emerging readers, while the TOD-C is appropriate for students who can read connected text or need a more comprehensive evaluation.
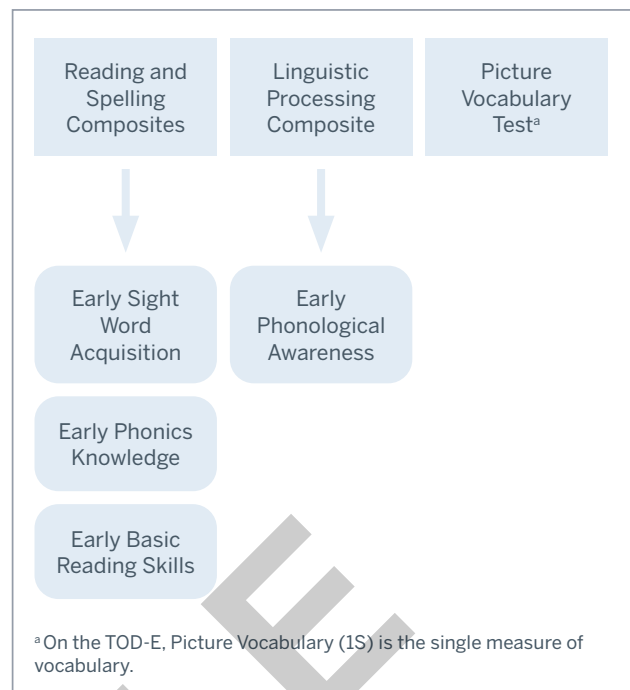

ᵃ On the TOD-E, Picture Vocabulary (1S) is the single measure of vocabulary.

Figure 1.3. *TOD-E Composites*

TOD Rating Scales (Ages 5 Years, 0 Months–89 Years, 11 Months)

Because a comprehensive evaluation should include more than individually administered direct-assessment tests, Rating Scales are also available to assist in collecting information about each examinee: one for parents/caregivers (TOD-C and TOD-E), one for teachers (TOD-C and TOD-E), and one for the examinee when a self-report is appropriate (TOD-C). The parent/caregiver form also includes a Spanish version that can be used when the respondent's primary language is Spanish. Results from the TOD Rating Scales can also help determine risk for dyslexia.

The following paragraphs provide a brief overview of the TOD components. Some TOD components are available in print (paper and pencil) format, whereas others are available in electronic (online or digital) format via the WPS® Online Evaluation System™ (OES) at platform.wpspublish.com. Chapter 2 provides details of the methods for administration and scoring.

Manual

This manual provides information describing the TOD content, theoretical rationale, administration, scoring, interpretation, development, standardization, and psychometric features. A glossary of terms is included after Chapter 5. Information for the TOD-S, TOD-C, and TOD-E are all contained within this manual.

Where relevant, color-coding is used as an aid to help differentiate information for the three separate test batteries. Tables in this manual are coded with a colored bar beneath the title:

- TOD-S tables are coded with a tan bar.
- TOD-C tables are coded with a green bar.
- TOD-E tables are coded with a blue bar.
- Tables that are general or apply to all tests are coded with a gray bar.

TOD Norms Book

A separate volume holds the TOD appendices, which present lookup data for hand scoring the TOD. The appendices use the same color-coding employed in this manual to differentiate among the three test batteries.

TOD-S Administration Guide

The TOD-S may be administered using a print (paper and pencil) format or electronic (online) format via the WPS OES. The TOD-S Administration Guide contains the instructions for both administration methods.

TOD-S Scoring Sheet

In a print (paper and pencil) administration, the TOD-S Scoring Sheet is used after administration to record and score responses and convert raw scores to standard scores. Recording and scoring are automatic when the TOD-S is administered via the WPS OES.

Response Booklets

Response Booklets are used when the examinee is required to mark or write answers to test questions. The TOD-S contains three Response Booklets based on the grade of the examinee (Kindergarten–Grade 1, Grades 2–5, Grade 6–Adult). The TOD-C has one Response Booklet, which is used for four of the tests. The TOD-E does not have a Response Booklet.

Test Easels

Test Easels are used when administering the TOD-C or TOD-E. The TOD-C tests and related stimuli are contained in two Easels, and the TOD-E uses one Easel. A digital audio recording is required for the TOD-C Blending (13C) test; otherwise, the Test Easels contain all stimuli for TOD-C and TOD-E test items and directions for the examiner, as well as scoring criteria. The digital recording is available on the WPS Online Evaluation System (OES) and the WPS website.

Record Forms

Record Forms are used to record demographic information, observations, and responses to items, as well as to calculate scores. The TOD-C and TOD-E each have their own Record Forms.

Rating Scales

The TOD-C and TOD-E include Rating Scales to provide quantitative and qualitative information supplemental to the direct assessment tests. The TOD-C includes three Rating Scales: 1) Parent/Caregiver Rating (English and Spanish), 2) Teacher Rating, and 3) Self-Rating Scales. The TOD-E

includes two Rating Scales: 1) Parent/Caregiver Rating (English and Spanish) and 2) Teacher Rating Scales. The Rating Scales are available only on the WPS OES. They can be printed if a paper version is needed but must be scored online.

TOD Intervention Guidebook

Dyslexia Interventions and Recommendations: A Companion Guide to the Tests of Dyslexia (TOD) (referred to throughout this manual as the *TOD Intervention Guidebook*) is a companion resource that provides strategies and interventions to address specific weaknesses identified by the TOD tests and Rating Scales. The recommendations in this guide are designed to help evaluators select accommodations and to inform and guide instructional planning,

and may be modified and/or copied and inserted into psychological or educational diagnostic reports. The TOD Intervention Guidebook also includes an appendix that summarizes strategies for classroom use by teachers.

Test Selection Charts

Tables 1.4 and 1.5 present the test selection charts for the TOD-C and TOD-E. These charts, also found in the Test Easels, illustrate what skill(s) each test measures and identify which combination of tests is needed to form the various composites. The test selection charts guide examiners in selecting the most appropriate TOD tests to administer for each examinee.

TOD Scores

TOD test scores provide a profile of an examinee's strengths and weaknesses within the reading and spelling, linguistic processing, and vocabulary and reasoning domains. Standard scores allow for comparison of an individual to same-age or same-grade peers. In addition, percentile ranks, confidence intervals, and age-equivalent and grade-equivalent scores are available for each of the TOD tests to enhance the detail and clinical utility of the score interpretations. Growth scores are also available for the TOD tests, to use for intra-individual comparisons in tracking progress over time.

TOD test scores can be reported and interpreted individually and can also be combined into Dyslexia Risk/Diagnostic Index scores, as well as additional

index and composite scores. Standard scores, percentile ranks, and confidence intervals are available for index and composite scores as well. Because it is often helpful to determine whether scores differ significantly from one another, the TOD provides a means of determining the statistical and clinical significance of differences between the scores of tests that compose each index or composite, as well as between the index and composite scores; information showing how rare the differences are in the population is also provided.

The TOD Rating Scales yield norm-referenced *T*-scores, as well as percentile ranks and confidence intervals.

Table 1.4. TOD-Screener and TOD-Comprehensive Test Selection Chart

Column groups: *Indexes* — DDI (Dyslexia Diagnostic Index), RSI (Reading and Spelling Index), LPI (Linguistic Processing Index). *Reading and Spelling — Composites* — Sight Word Acquisition, Phonics Knowledge, Basic Reading Skills, Decoding Efficiency, Spelling, Reading Fluency, Reading Comprehension Efficiency. *Linguistic Processing — Composites* — Phonological Awareness, Rapid Automatized Naming, Auditory Working Memory, Orthographic Processing; *Test* — Symbol to Sound Learning (Visual–Verbal PAL). *Vocabulary and Reasoning[a] — Composites* — Vocabulary, Reasoning, Vocabulary and Reasoning 2, Vocabulary and Reasoning 4.

Test number	TOD-Comprehensive	DDI	RSI	LPI	Sight Word Acquisition	Phonics Knowledge	Basic Reading Skills	Decoding Efficiency	Spelling	Reading Fluency	Reading Comprehension Efficiency	Phonological Awareness	Rapid Automatized Naming	Auditory Working Memory	Orthographic Processing	Symbol to Sound Learning (Visual–Verbal PAL)	Vocabulary	Reasoning	Vocabulary and Reasoning 2	Vocabulary and Reasoning 4
1S	Picture Vocabulary	✓															✓		✓	✓
2S	Letter and Word Choice	✓	✓												✓					
3S	Word or Question Reading Fluency	✓	✓	✓						✓	✓									
4C	Phonological Manipulation	✓		✓								✓								
5C	Irregular Word Spelling	✓	✓						✓											
6C	Rapid Letter Naming	✓		✓									✓							
7C	Pseudoword Reading	✓	✓			✓	✓													
8C	Word Pattern Choice	✓		✓											✓					
9C	Word Memory	✓		✓										✓						
10C	Picture Analogies																	✓	✓	✓
11C	Irregular Word Reading				✓		✓													
12C	Oral Reading Efficiency									✓										
13C	Blending											✓								
14C	Segmenting											✓								
15C	Regular Word Spelling								✓											
16C	Silent Reading Efficiency										✓									
17C	Rapid Number and Letter Naming												✓							
18C	Letter Memory													✓						
19C	Rapid Pseudoword Reading					✓		✓												
20C	Rapid Irregular Word Reading				✓			✓												
21C	Symbol to Sound Learning															✓				
22C	Listening Vocabulary																✓			✓
23C	Geometric Analogies																	✓		✓

Rows 1S–3S belong to TOD-S; rows 4C–23C belong to TOD-C.

[a]Vocabulary and Reasoning composites can be used in interpreting the DDI.

TOD Scores

Table 1.5. TOD-Screener and TOD-Early Test Selection Chart

Test number	TOD-Early	Indexes			Reading and Spelling					Linguistic Processing		Vocabulary
					Composites			Tests		Composite	Test	Test
		EDDI	ERSI	ELPI	Early Sight Word Acquisition	Early Phonics Knowledge	Early Basic Reading Skills	Letter and Word Choice (Early Spelling Recognition)	Word or Question Reading Fluency	Early Phonological Awareness	Early Rapid Number and Letter Naming	Picture Vocabulary[a]
1S (TOD-S)	Picture Vocabulary[a]				✓							✓
2S (TOD-S)	Letter and Word Choice	✓	✓					✓				
3S (TOD-S)	Word or Question Reading Fluency	✓	✓						✓			
4E (TOD-E)	Sounds and Pseudowords	✓	✓			✓						
5E (TOD-E)	Rhyming	✓		✓						✓		
6E (TOD-E)	Early Rapid Number and Letter Naming	✓		✓							✓	
7E (TOD-E)	Letter and Sight Word Recognition	✓	✓		✓		✓					
8E (TOD-E)	Early Segmenting	✓	✓	✓						✓		
9E (TOD-E)	Letter and Sound Knowledge	✓	✓			✓	✓					

[a]Picture Vocabulary can be used in interpreting the EDDI.

Summary of Standardization and Technical Properties

The TOD standardization and validation samples included a total of 2,518 examinees ranging in age from 5 to 89 years. The TOD normative scores were based on three separate nationally representative samples: TOD-C child (*n* = 1,401); TOD-C adult (*n* = 342); and TOD-E (*n* = 347). The TOD-S was taken by individuals in each of the three samples and serves as the basis for the TOD-S standardization and validation. Each of these samples closely matches U.S. Census data based on gender, race/ethnicity, parents' educational level, and geographic region. The remaining individuals made up the clinical validation samples and had a reading disability and/or other clinical diagnosis. These samples were used to help validate the TOD. Chapter 4 describes the details of these samples.

Chapter 5 presents evidence supporting the psychometric properties of the TOD components, primarily the reliability and validity. In general, the reliability of the tests and composites meets standards set by Bracken (1987) and Salvia et al. (2016), and collectively supports the stability of the TOD across tests and over time. Several studies provide validity evidence for the TOD. Confirmatory factor analyses support the factorial structure of the Dyslexia Risk and Diagnostic Index scores, as well as the component Reading and Spelling and Linguistic Processing Index scores. Additionally, concurrent validity analyses demonstrate that each TOD test correlates in expected ways with other tests of similar constructs.

Most importantly, comparisons between typically developing individuals and those with a diagnosed reading disability show that the latter group performs more poorly on the TOD measures. This disparity in performance represents a clinically meaningful difference. Furthermore, 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; and the TOD-E Early Dyslexia Diagnostic Index does so with sensitivity of ≥.80 and specificity of ≥.99. Sensitivity increases as the cutoff score increases. These results support the utility of the TOD in both clinical or school settings to identify individuals with dyslexia.

Principles of Use

The TOD is designed to screen for reading and spelling difficulties, and then provide comprehensive assessment to help identify those individuals who have characteristics that are consistent with a diagnosis of dyslexia. Through assessment of reading and spelling, linguistic processing, and vocabulary and reasoning abilities, the TOD can provide empirical evidence linking the performance of an individual to the probability that the individual has dyslexia. In addition, TOD results can in turn indicate specific areas where interventions are needed.

Early identification and intervention are fundamental to future reading success. The TOD can address referral questions beyond a dyslexia diagnosis and be used in a variety of settings, including schools, clinics, hospitals, private practice, and reading intervention programs. The TOD can be administered to fluent English speakers, including individuals who are bilingual, multilingual, or non-native English speakers.

The TOD can be administered and scored by a professional who is familiar with and competent in psychological or educational testing, or by a paraprofessional with training in assessment and specific training on the TOD. Interpretation and application of the results should be performed by a professional with training and experience in child development, psychology, and/or education, or a person who is supervised by such a professional, and, in some cases, by professionals with expertise in speech–language pathology. WPS authorizes individuals or institutions to purchase the TOD based on the purchaser's stated education and experience, or the stated education and experience of the purchaser's

direct supervisor. In the case of institutions (e.g., a school district purchasing on behalf of its professional employees), it is expected that the purchase is for use by individuals with the relevant education and experience.

In addition to possessing the authorization required to purchase the TOD, each potential user must also ensure that they are working within the scope of their practice in a competent, legal, and ethical manner. It is the responsibility of examiners to determine their own competence for using the TOD by evaluating its principles of use in light of their training and experience, the intended scope of use (e.g., in a research setting, for diagnostic purposes), and the guidelines set forth by relevant professional organizations and licensing boards, including the American Psychological Association *Standards for Educational and Psychological Testing* (American Educational Research Association et al., 2014).

Before administering the TOD, professional users should read this manual and review the TOD Test Easels, Record Forms, and Response Booklets to become familiar with the assessment's administration, scoring, and interpretation procedures, as well as its psychometric properties. It is advisable that examiners complete one or more practice administrations of the TOD before they administer it in a clinical setting. As with any instrument, the TOD should not be used in isolation to diagnose or plan treatment for an individual. Instead, it should be used in concert with other data, such as information derived from observation, concurrent or former assessments, history, other detailed interviews, and information from the TOD Rating Scales.