

CASL-2

Comprehensive Assessment of Spoken Language Second Edition

Manual

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Introduction

The Comprehensive Assessment of Spoken Language, Second Edition (CASL-2) is an in-depth evaluation of an individual's oral language skills. Designed for use with children and young adults aged 3 to 21 years, the CASL-2 consists of a battery of 14 stand-alone tests, each of which measures a specific oral language skill. The scores of each test can be interpreted separately, and they can be combined to yield summary index scores that represent broader areas of oral language function. The CASL-2 preserves the strongest aspects of the widely used original Comprehensive Assessment of Spoken Language (CASL) while incorporating many new features and improvements with this revision.

The CASL-2 is based on the Integrative Language Theory (ILT), first presented by Elizabeth Carrow-Woolfolk, PhD, in An Integrative Approach to Language Disorders in Children (Carrow-Woolfolk & Lynch, 1981) and described in detail in Chapter 4 of this manual. A more detailed review of the ILT is available in *Foundations of Language Assessment*, a handbook from the Oral and Written Language Scales, Second Edition (OWLS-II; Carrow-Woolfolk, 2011a, 2011b).

Reside The ILT posits that language reflects two dimensions: knowledge and performance.

Language knowledge represents the form and content, or structures, of language, and has four categories: (1) Lexical/Semantic, (2) Syntactic, (3) Supralinguistic, and (4) Pragmatic.

Language performance refers to the systems used to process language. Within oral language, the CASL-2 focuses on two systems: (1) auditory comprehension and (2) oral expression.

Together, language knowledge (structures) and performance (processing) provide a framework for describing and assessing the elements of spoken language.

The design and organization of the CASL-2 are based on the ILT. Table 1.1 provides a brief description of the 14 CASL-2 tests. Each test measures a specific linguistic structure. These structures are grouped together into categories by their common functions (see Table 1.2). Each CASL-2 test focuses on only one primary area of language processing and requires the examinee to respond with either expressive or receptive skills.

CASL-2 test	Age range (in years)	Linguistic structure category	Test Easel	Oral language skills measured
Receptive Vocabulary	3 to 21	Lexical/Semantic	1	Auditory comprehension of words that refer to basic perceptual and conceptual relations
Antonyms	5 to 21	Lexical/Semantic	1	Word knowledge, retrieval, and oral expression in a linguistically decontextualized environment
Synonyms	5 to 21	Lexical/Semantic	1	Knowledge of the meaning of spoken words in a linguistically decontextualized environment
Expressive Vocabulary	3 to 21	Lexical/Semantic	1	Word knowledge, retrieval, and oral expression in a linguistic context
Idiomatic Language	9 to 21	Lexical/Semantic	1	Knowledge, retrieval, and oral expression of idioms
Sentence Expression	3 to 21	Syntactic	2	Oral expression of words, phrases, and sentences using a variety of morphosyntactic rules
Grammatical Morphemes	3 to 21	Syntactic	2	Metalinguistic knowledge and oral expression of the form and meaning of grammatical morphemes
Sentence Comprehension	3 to 21	Syntactic	2	Auditory comprehension of syntax in spoken sentences that have similar structures and words
Grammaticality Judgment	5 to 21	Syntactic	2	Ability to judge the accuracy of syntax and construct grammatically correct sentences
Nonliteral Language	7 to 21	Supralinguistic	3	Understanding of the meaning of spoken messages, independent of the literal interpretation of the surface structure
Meaning from Context	7 to 21	Supralinguistic	3	Ability to deduce the meaning of words from their oral linguistic context
Inference	3 to 21	Supralinguistic	3	Use of previously acquired world knowledge to derive meaning from inferences in spoken language
Double Meaning	9 to 21	Supralinguistic	3	Understanding of words, phrases, and sentences that have more than one meaning
Pragmatic Language	3 to 21	Pragmatic	3	Knowledge of pragmatic language rules and their appropriate application
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Table 1.1. Overview of the CASL-2 Tests

Table 1.2. Categories and	Descriptions of Linguistic	Structures Measured by the CASL-2
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Linguistic structure category	Description of linguistic structures
Lexical/Semantic	 Knowledge and use of words and word combinations Vocabulary: nouns, verbs, modifiers, idioms, prefixes, and suffixes
Syntactic	 Knowledge and use of grammar Grammatical morphemes: function words (e.g., pronouns, prepositions, conjunctions, auxiliaries, determiners) and inflections (e.g., possessives, plurals, verb tense, noun-verb agreement) Sentence structure: sentence complexity, accuracy, and type
Supralinguistic	 Knowledge and use of language in which meaning is not directly available from the surface lexical and syntactic information Nonliteral language: double meaning, inference, verbal reasoning, figurative language, indirect requests, and humor
Pragmatic	- Knowledge of language that is appropriate in different situational contexts and ability to modify language according to the social situation

Note. The term *linguistic structure* is used to describe certain elements of language that carry its basic meaning, such as syntax, grammar, vocabulary, and situational context. The term *category* is used to group linguistic structures that have common functions.

CASL-2 Materials

The CASL-2 consists of the following components:

Manual This manual provides information on the content, administration, scoring, interpretation, development, standardization, and psychometric properties of the CASL-2. Tables for manually converting CASL-2 raw scores into standard scores are provided in the appendix.

Test Easels Three Test Easels contain all of the tests within the CASL-2 (see Table 1.1 for the organization of tests by Test Easel). Test Easel 1 contains all Lexical/Semantic tests, Test Easel 2 contains all Syntactic tests, and Test Easel 3 contains all Supralinguistic tests and the Pragmatic Language test. Each Test Easel is a self-standing stimulus book that contains instructions, examples, pictures, items, prompts, scoring criteria, sample correct and incorrect answers, and information about the skills measured by each item. The examiner's side of the Test Easel presents the item text and scoring information, while the examinee's side displays either a picture corresponding to the item or a blank page for items without pictures. The beginning of each test is tabbed to help examiners quickly find the test of interest.

Record Forms There are two CASL-2 Record Forms. The CASL-2 Comprehensive Record Form contains all 14 tests and can be used with examinees across all ages covered by the tests, from 3 to 21 years. The CASL 2 Preschool Record Form contains only 10 of the 14 tests—the seven tests that can be administered with children ages 3 to 4, and three additional tests that can be administered to children ages 5 to 6. Thus, if you work mostly with school-aged children or with individuals across the age range of 3 to 21, you would use the Comprehensive Record Form, whereas the Preschool Record Form is designed for those who work with the preschool ages of 3 to 6 *years only*.

The Record Forms are used to record the examinee's demographic information and his or her responses during test administration. They are also used to score each item and can be used to convert the raw scores into standard scores. Additionally, they contain an Item Analysis Worksheet for each CASL-2 test, which can be used to develop a targeted intervention plan for the examinee. Raw score conversions and item analysis can also be quickly, easily, and securely completed by the WPS Online Evaluation System[™] at platform.wpspublish.com (registration is required).

CASL-2 Scores

The CASL-2 provides a profile of an individual's strengths and difficulties in oral language skills. It targets each linguistic structure, allowing for the design of an intervention program that is aligned with the individual's needs. Standard scores allow for comparison of the examinee's performance to that of a typically developing peer group, based on age or grade. These standard scores can be augmented with descriptive ranges, confidence intervals, percentile ranks, and test-age and grade equivalence scores, which enhance the detail and clinical utility of the score interpretations. Guidelines for interpreting extreme scores and score differences are also included. Additionally, qualitative information is available through item analysis, which serves to illuminate the specific parts of oral language that may be targeted for intervention.

The CASL-2 provides several score options. Standard scores are reported for each of the CASL-2 tests, as well as for the two broader areas of oral language function in language processing (Receptive

Language Index and Expressive Language Index), three categories of linguistic structures (Lexical/ Semantic, Syntactic, Supralinguistic Indexes), and for overall spoken language ability (General Language Ability Index, GLAI). The overall GLAI score replaces the Core Composite score of the original CASL.

The individual CASL-2 test standard scores should be the primary focus of the CASL-2 interpretation process, because each test provides the most precise interpretation of an examinee's skill in a specific language structure category (lexical/semantic, syntactic, supralinguistic, or pragmatic knowledge) and in language processing (receptive or expressive language). This allows the clinician to create a specific plan for intervention based on the areas of strength and difficulty identified by the individual CASL-2 tests. Additionally, by examining how the test results relate to each other, across areas of processing or structures, the clinician can identify difficulties and strengths within the examinee's integrated system of spoken language as a whole.

CASL-2 Improvements

The CASL-2 serves the same purpose as the original CASL (Carrow-Woolfolk, 1999): to provide an in-depth assessment of an individual's oral language skills based on a well-defined theory of language. This revision preserves many of the original CASL test items while also updating the test with new features that enhance its value and utility. Improvements focus on the following areas:

1. New items were added to all tests, and the age range was expanded for several of the individual tests, yielding greater measurement available at the younger ages.

- 2. All artwork was updated to full-color illustrations to make the test more engaging for young children.
- 3. A new normative sample was collected to provide updated age-based standard scores. Grade-based standard scores were added across all tests, and summary index scores are now available for all ages.
- 4. Scoring criteria were improved for all expressive language tests to increase the reliability of coding and scoring across examiners. Alternative scoring guidelines for nonstandard English dialects have been added.

- 5. Items with outdated or confusing content were deleted (e.g., questions about older technology, such as using a pay phone). The Paragraph Comprehension test in the original CASL was dropped from the CASL-2 and a new companion test, the Oral Passage Understanding Scale (OPUS; Carrow-Woolfolk & Klein, 2017), is available to provide a method of assessing an individual's listening comprehension skills within a narrative format.
- 6. The Record Form was updated to assist with ease of scoring. Item Analysis Worksheets were added for all tests in order to provide qualitative information about the specific parts of oral language. This information can be used to develop an intervention plan.
- 7. Free online scoring and reporting features, including quantitative and qualitative analyses, are available on the WPS Online Evaluation System. Visit platform.wpspublish.com for more information. Registration is required.

Summary of Standardization and Technical Properties

The CASL-2 was standardized on a nationally representative sample of 2,394 children and young adults aged 3 years, 0 months to 21 years, 11 months. The sample was stratified to match the most recent U.S. Census data on gender, ethnicity, region, and parents' educational level. The standardization of the CASL-2 is detailed in Chapter 4.

In addition to the standardization sample, a clinical validation sample was collected, consisting of 271 individuals who had a clinical diagnosis of expressive and/or receptive language disorder, hearing impairment, autism spectrum disorder, social (pragmatic) communication disorder, intellectual disability, learning disability, or developmental delay. All individuals in the clinical validation sample were receiving special services (e.g., attending a special day class, participating in a pull-out resource class) at the time of assessment.

The CASL-2 provides age-based standard scores in the increments displayed in Figure 1.1.

	Age range	Standard score increments
	3–0 through 7–11	3 months
	8–0 through 12–11	6 months
	13–0 through 15–11	12 months
	16–0 through 21–11	Combined years
X . 40	Figure 1.1. Age Score Increments	e-Based Standard s of the CASL-2 Tests

The smaller increments in the younger age groups reflect the rapid development of oral language skills in those age ranges. Grade-based standard scores were developed using a subsample of 1,538 individuals in kindergarten through 12th grade. These standard score reference groups are divided into Fall and Spring terms for each grade.

The CASL-2 has strong internal consistency, test-retest, and interrater reliability. The CASL-2 internal consistency reliability coefficients range from .85 to .99 for individual tests and .95 to .99 for index scores, indicating a high level of internal consistency. Two-week test-retest correlations were also high, with reliability coefficients ranging from .73 to .94 for CASL-2 test scores and .88 to .96 for CASL-2 index scores. Interrater reliability estimates showed strong agreement between the scores of two different raters who received the same written instructions for scoring the CASL-2 tests, with intraclass correlation coefficients ranging from .86 to .97. Taken together, these estimates support the stability of CASL-2 results within tests, over time, and across raters.

Several studies provide validity evidence for the CASL-2. A confirmatory factor analysis supports the structure of the test's organization into categories of linguistic structures and processing skills of expressive and receptive language. The CASL-2 standard scores correlate in expected ways across the 14 individual tests and with other measures of oral language, including its companion instrument,

the OPUS. In addition, the CASL-2 standard scores distinguish typically developing individuals from those with expressive and/or receptive language disorder, hearing impairment, autism spectrum disorder, social (pragmatic) communication disorder, intellectual disability, learning disability, and developmental delay. Using an optimized cutoff score of 85 or higher, the standard scores discriminate clinically diagnosed individuals from typically developing individuals with sensitivity of \geq .74 and specificity of \geq .84. See Chapter 5 for further discussion of the reliability and validity studies.

Principles of Use

The CASL-2 can address a variety of referral questions, such as determining language delays or oral language disorders, evaluating English language competence in those who are learning English as a second language, and identifying specific aspects of oral language that may be impacting classroom learning or interpersonal communication. Additionally, the CASL-2 can be used in a variety of settings, including schools, clinics, hospitals, private practices, and intervention programs.

The CASL-2 should be used only by individuals who have relevant training and experience in the administration and interpretation of psychological and educational assessments. Planning interventions based on CASL-2 results requires additional professional training and experience in speech and language, child development, psychology, and/or education, or supervision by a professional trained in these areas. Before using the CASL-2, individuals should read this manual as well as the CASL-2 Test Easels and Record Form to become familiar with the assessment's administration procedures, theoretical background, and psychometric properties.

Although the CASL-2 provides a comprehensive measurement of oral language, results should not be used in isolation for diagnosis or treatment planning. Instead, these results should be used in concert with other data (e.g., other assessment results, parent and teacher interviews, review of available records, direct observation).

Presenters

Administration and Scoring

This chapter provides an overview of administration procedures for the 14 CASL-2 tests, as well as detailed instructions for completing the Record Form. Full administration instructions for the CASL-2 tests and comprehensive item-level scoring guidelines are included in the Test Easels and Record Form for use during test administration.

Preparing to Administer the CASL-2

Before using the CASL-2, it is important to familiarize yourself with the administration instructions, scoring guidelines, and test materials. Practice reading aloud the stimulus text for each item before your first administration. Some advanced items include words that may be unfamiliar to you; pronunciation guides for such words are included in the Record Form and the Test Easels. Adherence to the same administration and scoring procedures used during CASL-2 standardization is necessary to obtain accurate and interpretable results. These procedures are detailed in this chapter.

Administration Time

Administration of each test takes between 5 and 10 minutes. The time required to administer all tests needed to calculate the General Language Ability Index is approximately 30 to 45 minutes for examinees aged 3 to 6 years, and approximately 45 to 60 minutes for examinees aged 7 to 21 years. Administration times may vary as a function of the examinee's ability, motivation level, or emotional state during testing. Establishing rapport with the examinee should begin before the administration by providing a supportive and encouraging attitude.

Population Considerations

The CASL-2 was standardized on individuals who demonstrated proficiency in English. Bilingual and multilingual individuals were included in the standardization sample as long as they were judged by the examiner to be proficient in English. If an examinee does not exhibit sufficient English proficiency to learn and communicate in English, then it is not appropriate to base interpretation of his or her scores on the CASL-2 norms, although the item responses can provide qualitative clinical information. Similarly, if any adaptations (e.g., enlarging the pictures or repeating the same item more than once) are made to the testing materials or procedures due to the examinee's specific needs, such adaptations should be noted on the Record Form and the norm-based standard scores should not be used for the examinee.

Testing Environment

Administer the CASL-2 in a room that is as free of distractions as possible. The room should be quiet and well-lit, with a table or desk and two chairs. Position the Test Easel so that the pictures face the examinee and the instructions and item text face you. Ensure that the examinee is comfortably seated and can easily see the pictures. Keep the Record Form positioned so that it is not easily visible to the examinee as you administer the items and record the responses. Be sure you have an unobstructed view of the examinee so you can note behaviors and observe where he or she points to the pictures on the Test Easel for the Receptive Vocabulary and Sentence Comprehension tests.

Materials Needed

Test Easels There are three CASL-2 Test Easels organized by the category of linguistic structures measured in each test. Test Easel 1 contains all Lexical/Semantic tests, Test Easel 2 contains all Syntactic tests, and Test Easel 3 contains all Supralinguistic tests and the Pragmatic Language test. The beginning of each individual CASL-2 test is marked by a tab so you can easily locate the selected test during administration. Each test begins with the specific instructions and age ranges for the test, along with suggested Start Items by age group. Additionally, the Test Easels include all examples, pictures, items, prompts, and information about the skills measured by each item for most tests. The Antonyms and Synonyms tests are exceptions; for both of these tests, use the Test Easel to review the instructions and administer the examples, then use the Record Form to administer the items.

Scoring criteria and sample correct and incorrect responses for each item are listed in the Test Easels to facilitate ease of scoring. Each sample correct and incorrect response is labeled with a letter, which can be used as shorthand for recording the response in the Record Form when the examinee gives a response printed in the Test Easel. When reviewing the sample responses, note that parentheses around words indicate that those words are optional, and a slash (/) indicates words that are interchangeable. For example, if the correct response listed in the Test Easel is "c. (a/the) dog," the examinee can say "a dog," "the dog," or simply "dog," and all are considered correct responses. Rather than writing the response verbatim, you can simply write the letter "c" for the item in the Record Form to indicate that the examinee gave one of the responses printed in the Test Easel.

Record Forms There are two CASL-2 Record Forms. The CASL-2 Comprehensive Record Form contains all 14 tests and can be used across ages 3 to 21 years. The CASL-2 Preschool Record Form contains only the 10 tests that can be used with children aged 3 to 6 years. Thus, if you work mostly with school-aged children or individuals across the age range of 3 to 21, you would use the Comprehensive Record Form, whereas the Preschool Record Form is designed for those who work with the preschool ages of *3 to 6 years only*.

The Record Forms contain space to record and score each response for the CASL-2 tests. Additionally, they contain the Item Analysis Worksheets to facilitate qualitative analysis for each CASL-2 test. At the back of each Record Form there is a foldout page that allows you to record the examinee's background information, calculate age, and easily transfer the raw scores for each individual test to the Score Summary section as you go through the administration. When you are ready to score, you can convert each test Total raw score to a standard score, confidence interval, percentile rank, test-age or grade equivalent, and descriptive range. On the adjacent page, you can create a graphical representation of performance by plotting the examinee's test standard scores, and you can record any significant differences between tests. The innermost page of the foldout allows you to easily transfer the test standard scores to calculate the index standard scores. Finally, by folding in the back page, you can plot the index standard scores on the graph and record significant differences between index scores.

There is also a Summary Profile Form available for the convenience of presenting all test scores on a single page, if needed to include with a report or student file. This form can be downloaded from www.wpspublish.com/CASL2/profile. As an alternative to completing the scoring and reporting on the paper form, free online scoring and reporting features are also available on the WPS Online Evaluation System (OES; registration is required). The OES provides all scoring pages from the Record Form as well as the Summary Profile Form and Item Analysis Worksheet(s), already completed and ready to print. Visit platform.wpspublish. com for more information.

Calculating Chronological Age

Prior to calculating the examinee's age, be sure to verify his or her birth date, as the calculated age will be used to determine the age-appropriate tests, suggested Start Items, and age-based standard scores. To calculate chronological age, first write the test date and the examinee's date of birth in the designated spaces on the foldout page of the Record Form, as illustrated in Figure 2.1. Use only the year and month in the age calculation; do not use the day and do not round up to the next month. Next, subtract the date of birth from the test date, starting with the

	Year	Month
Date of testing	2017 16	-3-15
Date of birth	2009	II
Chronological age*	7	Ч
*Ilse age in vea	rs and months only. Do	not round up

Figure 2.1. Chronological Age Calculation

Month column and then Year. If the test session was held over more than one day, use the first test date to compute the examinee's age.

If the month of the test date precedes the month in the date of birth, the Month column must "borrow" from the Year column to allow subtraction. In the example shown in Figure 2.1, 11 months cannot be subtracted from 3 months, so 1 year (12 months) is borrowed from 2017, which becomes 2016. After adding the 12 months to the 3 months, you can now subtract 11; the result is 4 months. Next subtract the year 2009 from 2016, for a result of 7 years. Thus the chronological age at testing for the individual in this example is 7 years, 4 months.

Order of Test Administration

The CASL-2 is designed so that any of the 14 tests available for the examinee's age may be administered. If you administer two or more tests, follow the order in which the tests are presented within the Test Easels: administer tests in Test Easel 1 first, then Test Easel 2, followed by those in Test Easel 3. For example, if you plan to administer the Receptive Vocabulary, Expressive Vocabulary, and Pragmatic Language tests, you would administer the tests in Test Easel 1 first, following the order of the test presentation within the Easel (Receptive Vocabulary, then Expressive Vocabulary), then administer Pragmatic Language in Test Easel 3.

Administering the CASL-2

Administration of each CASL-2 test proceeds through the following general steps (greater detail is presented in the next sections):

 Introduce the tests to the examinee with a brief statement, for example: "I am going to ask you some questions about words and language. Some of the questions have pictures [if giving tests with pictures]. For some questions you will tell me your answers; on others, you may point to the picture for your answer [if giving tests with pictures]. Please try your best on all questions."

- 2. Find the tab on the Test Easel that corresponds to the selected test, then find the corresponding page in the Record Form to record and score the examinee's responses.
- 3. Read aloud the test examples in the Test Easel for the examinee's age, and follow the instructions for correct and incorrect responses (see Using the Examples section below).
- 4. Proceed to the Start Item appropriate for the examinee's age, as given in the Test Easel and in the Record Form (see Start Items section below).

- 5. Present the test items and score the responses (see Scoring Responses section below).
- 6. If the examinee generates correct responses to the first four administered items, continue testing forward. If the examinee misses one of the first four administered items, test backward until four correct responses in a row are established or Item 1 is administered (see Basal Rule section below).
- 7. If the examinee generates four incorrect responses in a row, stop administering the test and proceed to the next test (see Ceiling Rule section below).

Read each item exactly as printed. Do not change the item text or provide explanations for the meanings of words that are unfamiliar to the examinee. Do not emphasize certain words in the item text unless they are italicized (italics are used to denote emphasis when reading a word or phrase). You may repeat any item one time if the examinee requests it or appears not to understand.

It is important that the examinee makes his or her best effort. To encourage shy or reluctant examinees, praise their effort by saying "Good effort" or "You are trying really hard." During testing, read each item exactly as printed in the Test Easel or Record Form. If the examinee asks whether a response is right, say: "That was a good answer." If you think you misheard or missed an examinee's response, you may ask the examinee to repeat it by saying. "I missed your answer. Say it again."

Because this is a test of oral language (not reading or writing), never show the printed stimulus words or questions to the examinee, and never spell words from the stimulus text. Additionally, examinees should never be penalized for articulation errors. Provided you can understand what the examinee says, score the response based on its content.

Using the Examples

Follow the instructions in the Test Easels for administering the appropriate examples, based on the examinee's age. Examples are provided for all tests to ensure the examinee understands the task of the test before scored items are presented. The examples are not scored. The Test Easels provide instructions for modeling the correct response if the examinee answers incorrectly. Most CASL-2 tests include two sets of examples, one for younger examinees and one for older examinees. If an older examinee does not understand or responds incorrectly to the examples designated for his or her chronological age, the examiner may administer the examples designated for younger children. Additionally, you may repeat the example once, if you feel the repetition would help the examinee understand the task.

Start Items

Begin administering the scored test items with the age-appropriate Start Item for each test, as listed in the Test Easels (directly following the examples) and in the Record Form. There is a different designated starting point for each age range, so you do not need to administer all items to all examinees. Because the CASL-2 tests are sensitive to developmental changes in language across a wide age range, some items are too easy for certain ages. Administering a test at the age-designated Start Item allows you to skip items that are too easy for an examinee's age and ability level and begin further into the test, where the examinee is expected to perform successfully on the first several items before responding incorrectly.

It is important to begin testing with items that are relatively easy for the examinee in order to be sure that the examinee clearly understands the task of the test. Then, as items become more difficult and the examinee begins to receive scores of 0 on some items, the examiner can be relatively confident that the errors result from insufficient ability to succeed on difficult items, not because the examinee misunderstands the instructions of the task. After administering the examples, if you think the examinee will find the age-appropriate Start Item unusually difficult or easy, you may use an earlier or later Start Item. If, after you administer the examples, the examinee still does not understand the task (i.e., responds incorrectly to all examples), begin testing with Item 1 regardless of age.

Prompting

There are some items across CASL-2 tests for which certain responses may need prompting in order to clarify directions (e.g., "give only one word") or to elicit a more specific response when a vague answer is given. For example, the target of Item 8 in the Sentence Expression test is to compare size from the leading sentence of "This dog is *little*" to "This dog is *big.*" If the examinee responds with "This dog is *not little*," the examiner says the prompt, "You're close, but can you be more specific?" Responses that require prompting are marked with the Prompt icon P and are listed in the sample Incorrect response column in the Test Easel. The specific prompts corresponding to the responses are printed on the Test Easel page.

If the examinee gives a response that is not listed in the Test Easel but is very similar to a listed response that needs a prompt, you may provide the corresponding prompt. For example, again using Item 8 in the Sentence Expression test, if the examinee says, "This dog is *not small*," the examiner should read the prompt listed for *is not little*. Additionally, if an examinee provides a unique response that is vague or unclear but still related to the item, you may prompt one time by saying, "Can you be more specific?" If the examinee's response is correct following the prompt, score the item as correct. If the examinee's response does not improve after prompting, score the response as incorrect.

Recording Responses

Frequently given correct and incorrect responses for each item in the expressive tests are listed in the Test Easel with a letter next to each response. This letter provides a convenient shorthand for the examiner, so that if the examinee gives a response that is listed in the Test Easel, you can simply write the corresponding letter in the blank in the Record Form. For some CASL-2 tests, frequently given correct responses are listed in the Record Form. For these tests, check the box in the Record Form that is next to the response given by the examinee. If the examinee gives a response that is not listed, write the response in the space provided in the Record Form. For the multiple-choice tests, circle the number that corresponds to the picture choice shown on the Test Easel (for Receptive Vocabulary and Sentence Comprehension) or check the word in the Record Form (for Synonyms) to indicate the examinee's response.

Some correct responses are categorized as either *Preferred* or *Acceptable* to describe the quality of the examinee's response (more information about this distinction is provided in Chapter 3). For such items,

check the box next to Preferred or Acceptable in the Record Form. Note that all Preferred responses are listed in the Easel; therefore, if the examinee provides a response not listed in the Easel but you determine that it is correct, the response would be considered Acceptable. Both Preferred and Acceptable responses are awarded the same value of 1 point.

Some items provide alternative correct responses for individuals who speak African American English or a similar dialect (such as Southern English). These items are marked with an asterisk in the Record Form, and the alternative dialect responses appear at the bottom of the sample Correct response column in the Test Easel. If the examinee speaks African American English or a similar dialect and gives one of these responses, count it as correct. Most of these alternative dialect responses would be considered incorrect for individuals who speak mainstream (Standard) American English. See Chapter 3 for additional information.

Scoring Responses

For the Receptive Vocabulary, Antonyms, Synonyms, Grammaticality Judgment, Sentence Comprehension, Idiomatic Language, and Double Meaning tests and part of the Grammatical Morphemes test, correct responses are indicated in the Record Form. For all other tests, use the scoring criteria and sample correct and incorrect responses in the Test Easel to determine the examinee's score for each item. The scoring criteria for each item describe all the elements that must be present to score a response as correct. The sample correct and incorrect responses for all items are based on the most common responses collected during the standardization study and do not represent a comprehensive list of all possible responses. Rather, it is necessary to use the scoring criteria and sample responses as guidelines, then apply your clinical judgment to score the examinee's response.

In general, for a correct response, circle 1 in the scoring column next to the item number, and circle 0 for an incorrect response. Some items on the Pragmatic Language and Grammaticality Judgment tests are worth more than 1 point. Three items in Pragmatic Language have a maximum possible score of 3 points. For these items, follow the scoring criteria listed in the Test Easel to determine scores of 0, 1, 2, or 3 points, and circle the corresponding number in the Scoring column. The Grammaticality Judgment test includes items for older examinees that require a two-step scoring method. For these items, scores are as follows:

- 0 points = The examinee does not identify that a sentence is grammatically correct or incorrect.
- 1 point = The examinee identifies that a sentence is grammatically correct or incorrect, but does not successfully correct the sentence if it is incorrect.
- 2 points = The examinee identifies that a sentence is grammatically incorrect, then successfully corrects the sentence by adding, changing, or deleting one word.

Across all tests, an examinee may change his or her answer after an item is administered. Accept the change and score the most recent answer, whether or not it is correct. If the examinee's response differs from those provided in the Test Easels and the Record Form, and/or you are uncertain how to score it, write the response in the space provided in the Record Form, continue administering the test, and score it after the administration is complete. If the examinee requests more than one repetition of the same item or does not answer, write NR (for No Response) on the Record Form, circle 0 in the Score column, and say, "Let's try another one." If the examinee says he or she doesn't know the answer, consider the response incorrect and write, circle, or check NR on the Record Form, circle 0 in the Score column, and go on to the next item by saying, "Let's do the next one."

Note that the scoring focus of each item is determined by the linguistic structure category to which the test belongs, such that word knowledge is the focus of all tests in Test Easel 1, syntactic knowledge is the focus of all tests in Test Easel 2, and the understanding and flexible use of language in context is the focus of all tests in Test Easel 3. For example, examinees are penalized for grammatical errors only on the Syntactic tests of Test Easel 2. They are not penalized for grammatical errors on items in Test Easels 1 and 3, in which scores are based on content only.

Basal Rule

For all CASL-2 tests, the examinee must receive a score of 1 (or the maximum points possible for each

item) on four consecutive items to establish a basal and continue testing. When starting with Item 1, it is not necessary to establish a basal; continue testing until the Ceiling Rule is satisfied. If starting after Item 1 and the examinee receives a score of 0 on any of the first four items administered, it is necessary to administer items preceding the Start Item in *reverse order* until a basal of four consecutive correct items is established. Then, return to the item following the first error and resume testing forward until the Ceiling Rule is satisfied.

Sometimes it may be necessary to reverse all the way back to Item 1 and the examinee still may not have achieved four consecutive correct items. In this case, a basal is not established, but you can continue testing because you tested back to Item 1. In such a case, return to the first error after the Start Item and continue testing forward until the Ceiling Rule is met.

During the course of test administration, there may be many sets of four correct items in a row. This may appear to be a "second basal," but it is not treated as such. Always use the lowest set of four consecutive correct responses as the basal. If you are unsure how to score an item at the time of administration, it cannot be used to establish a basal. You should continue testing backward until four consecutive correct responses are achieved. If you determine later that the item in question was correct, you still use the lowest set of four consecutive correct responses as the basal. Once you have established a basal, all items below the basal are considered correct (i.e., the maximum possible score is given for each item below the basal) and do not need to be administered.

Figure 2.2 illustrates how to use the Basal Rule. In this example, the examinee is 9 years old and began the Sentence Expression test at Item 15, the Start Item for his age. He responded correctly to Items 15 and 16, but on Item 17 he gave an unusual response not listed in the Test Easel. The examiner initially considered this response incorrect based on the scoring criteria and for purposes of obtaining a basal. The examiner then administered Items 14 and 13 (in that order). The examinee answered both of these items correctly, and a basal of four consecutive scores of 1 (Items 13 to 16) was established. The examiner continued testing forward with Item 18. (The examiner later reread the scoring criteria listed in the Test Easel page for Item 17 and determined that the response was indeed incorrect, and this item was scored 0.)

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SENTENCE EXPRESSION

Administer this test using Test Easel 2.

Basal Rule: Score of 1 on 4 consecutive items.

Ceiling Rule: Score of 0 on 4 consecutive items.

EXAMPLES

A □ I like milk.

Item Repetition: Repeat once if examinee requests it or appears not to understand.

Recording: Common correct and incorrect responses are listed in the Test Easel. Write the letter listed in the Fasel that corresponds to the examinee's response, or write the response in the space provided. Write NR for no response. Check the box

AGES

3–6

6

next to Preferred or Acceptable when applicable for correct responses. Responses with prompts, indicated in the Easel, are considered incorrect if given as a final response. Items marked with an asterisk in this Record Form indicate those that provide alternative correct responses in African American English or a similar dialect.

Scoring: Circle 1 for a correct response, whether preferred or acceptable, and 0 for an incorrect response or no response. Refer to the scoring criteria and sample correct responses listed in the Test Easel as a guide for determining whether a response is correct.

1 0

□ preferred





Figure 2.2. The CASL-2 Record Form: Applying the Basal and Ceiling Rules

Ceiling Rule

For all CASL-2 tests, stop testing when the examinee receives a score of 0 on four consecutive items or when the final item of the test is reached, whichever comes first. In cases where finding a basal requires administering items in reverse order, it is possible to obtain a set of four consecutive incorrect items. This may appear to be a ceiling, but it is not treated as such. Always use the highest set of four consecutive incorrect responses as the ceiling. As described in the previous section, once a basal has been achieved, return to the item following the first error and continue testing forward until four consecutive items are scored as 0 and a true ceiling has been identified.

The only exception to this procedure is if the examinee responds incorrectly to the first administered item and then to the next three items administered in reverse order; then those four consecutive scores of 0 are considered to be the ceiling. In this case, you would continue testing backward until a basal of four consecutive correct responses is established or Item 1 is reached. However, after establishing a basal, you would not return to the item following the first error and continue testing forward. The first administered item and the three incorrect preceding items should be used as the ceiling.

If you are unsure how to score an item at the time of administration, it cannot be used to establish a ceiling. You should test forward until four consecutive incorrect responses are scored. If you determine later that the item in question was incorrect, you still use the highest set of four consecutive incorrect responses as the ceiling. All items above the ceiling are considered incorrect and given a score of 0.

Figure 2.2 illustrates how to use the Ceiling Rule. In this example, the 9-year-old examinee responded incorrectly to Items 20, 21, and 22 on the Sentence Expression test. His response on the next item, Item 23, was an uncommon response not listed in the Test Easel, so the examiner considered it correct for preliminary scoring and for establishing a ceiling. Therefore, the examiner administered additional items to obtain a definitive ceiling. The examinee responded incorrectly to Items 24, 25, 26, and 27, meeting the Ceiling Rule and completing administration of Sentence Expression. (Later, the examiner reread the scoring criteria listed on the Test Easel page and determined that the response for Item 23 was indeed correct, and this item was scored 1.)

Calculating the Raw Score

The following procedure is used to calculate the raw score for all 14 CASL-2 tests:

- Sum the values for all correct items on the page in the Record Form. *Be sure to count the items below the basal as correct (i.e., give the maximum score possible for each item below the basal).* Always use the lowest basal and the highest ceiling when calculating the raw score.
- Enter the subtotal score in the lower right corner of each page in the Record Form. The number in parentheses indicates the maximum possible points for that page.
- Transfer the subtotals from each page to the lines in the large "Determining the RAW SCORE" box at the end of each test section in the Record Form.
- Add the subtotals to obtain the Total raw score for the test.

Where applicable, there is also space provided to tally the number of Preferred and Acceptable correct responses. Use these spaces only for those items you administered (not those below the basal). Sum the number of Preferred responses given on the test and enter the total in the box labeled *Preferred*. Then sum the number of Acceptable responses given and enter that total in the box labeled *Acceptable*. There is no normative comparison for Preferred versus Acceptable responses, but the tallies provide clinical information about the quality of the examinee's responses, as discussed in Chapter 3.

Figure 2.3 illustrates this process using a completed Raw Score calculation for the Antonyms test. You can see that the subtotals for Items 1–12 and Items 13–31 are both the maximum score, because these items were below the basal for this examinee. Of the administered items, the examinee received a subtotal score of 9 for Items 32–48 and a subtotal of 1 for Items 49–62, with all items above the ceiling given a 0. Adding all the subtotals, the examinee received a Total raw score of 41. Of the items administered, the examinee provided 6 Preferred responses and 3 Acceptable ones.

	ANTONY	MS continued	
		OBSERVATIONS	
	Determining the RAW SCORE		
	Transfer the Subtotals to the appropriate space below.		
	13-31 Subtotal (Max. 19) 19	C	
	32-48 Subtotal (Max. 17)		Ň
	49–62 Subtotal (Max, 14)		
	RAW SCORE (Max. 62)		
	Transfer RAW SCORE to the Antonyms line in the foldout SCORE SUMMARY page of this Record Form.		
	Correct Responses Total number of administered items that were		
	Preferred 6 Acceptable 3		
	ted by Simi		
Prese for	JSE NI		

Note: For your convenience, completing the scoring pages of the Record Form as described in this section can also be easily, accurately, and securely done without additional charge by the WPS Online Evaluation System (OES) at platform.wpspublish.com (registration is required). You must first enter the score for each administered item within each administered test, and the OES will calculate the report from the scores you entered.

Score Summary of the CASL-2 Tests

Figure 2.4 is an illustration of a completed Score Summary in the Comprehensive Record Form for a fictitious examinee, Jane, who is age 7 years, 4 months. This figure will be used to illustrate the scoring procedures described throughout this section. All standard scores in this example are based on age, using the raw to standard score conversion located in Table A.1 in the appendix.

Fold out the last page of the Record Form so that the Score Summary section is facing you. This allows you to transfer the Total raw score from each administered individual CASL-2 test to the Raw Score column of the Score Summary section without flipping back and forth. Next, convert the raw scores to standard scores and percentiles using the normative tables in the appendix (use the section of Table A.1 that corresponds to the examinee's age to get an age-based standard score; use the section of Table A.4 that corresponds to the examinee's grade and term, either Fall or Spring, to get a grade-based standard score). If using gradebased norms, write either Fall or Spring next to the grade under the "Grade" section. If using grade-based norms during the summer, reference the grade the examinee will enter in the Fall. Be sure to check the box on the Record Form indicating the normative reference group you are using. See Chapter 3 for a discussion on selecting the normative reference group.

In this example, Jane is age 7 years, 4 months, and therefore the section of Table A.1 for ages 7 years, 3 months to 7 years, 5 months is referenced. She obtained a raw score of 43 on the Receptive Vocabulary test. In Table A.1, locate the raw score of 43 in the column for Receptive Vocabulary and look across the row to find the corresponding standard score and percentile rank, in their respective columns. The raw score of 43 converts to an age-based standard score of 98 and a percentile rank of 45; these scores are recorded in their respective columns in the Record Form. If you wish to use grade-based standard scores, you would reference the section of Table A.4 that corresponds to the examinee's grade and term (Fall or Spring) and follow the same procedure.

Confidence intervals can be calculated for the examinee's standard score by referencing the small table at the bottom of the page in Table A.1 based on the examinee's chronological age, or at the bottom of Table A.4 based on the examinee's grade. Both 90% and 95% confidence values are provided to create confidence intervals. Be sure to check the box on the Record Form to indicate whether the 90% or 95% confidence interval is used. For the current example, Table A.1 lists a 95% confidence value of 7 for the Receptive Vocabulary test for an individual aged 7 years, 4 months. The value of 7 is subtracted from and added to the standard score of 98 to report a confidence interval of 91 to 105.

Raw scores can be converted to test-age equivalents for all CASI-2 tests using Table A.3 and grade equivalents using Table A.6, both in the appendix. Be sure to check the appropriate box on the Record Form to indicate whether you are reporting test-age or grade equivalent scores. In the example, Jane's raw score of 43 on Receptive Vocabulary corresponds to a test-age equivalent score of 7-0 to 7-2.

Descriptive ranges for standard scores are provided in the Score Summary section of the Record Form and in Table 3.1 in Chapter 3 of this manual. Write the description that corresponds to the range of scores that includes the examinee's standard score. For this example, the examinee's standard score of 98 on Receptive Vocabulary falls in the Average range.

Standard Score Profile of the CASL-2 Tests

On the page adjacent to the foldout Score Summary section, the standard scores for each administered test can be plotted on a line chart, so that differences between an examinee's scores can be visually compared (see the Standard Score Profile of CASL-2 Tests section of the Record Form). Additionally, this chart illustrates the variance of each score from the average of 100, providing a visual indication of the degree of difference between the examinee's score and that of his or her typically developing peers. Score ranges within one and two standard deviations from the mean of 100 are shaded in gray.

CASL-2 Test Score Comparisons

A statistical comparison between an examinee's standard scores can be calculated to determine whether or not the difference is statistically significant. First, looking at the Standard Score Comparisons of CASL-2 Tests section of the Record Form, write the names of the two tests that you are comparing in the CASL-2 Test Scores Compared column. Subtract the two test standard scores vou wish to compare, take the absolute value of the difference, and record it in the Difference in Standard Scores column. Compare this difference score to the values listed in Table A.7 for differences between individual tests. If the difference score is equal to or greater than the number listed in the table, the difference is statistically significant, in which case you would check Yes in the Significant. Difference column. If the difference score is less than the number listed in the table, you would check No to indicate that the difference is not significant.

If you determine that there is a significant difference between two scores, it is helpful to know how frequently that difference occurred in the standardization sample (see Chapter 3 for a discussion of how to interpret a clinically meaningful difference). Tables A.9 to A.14 present the frequency for all possible score comparisons across the 14 CASL-2 tests (organized by the category of linguistic structures/Test Easel in which the test belongs). Note that the direction of the difference does not matter (e.g., when comparing Receptive Vocabulary and Antonyms, it makes no difference which score is higher; the same numbers are referenced). To use these tables, find the examinee's age range in the left column and read across the row to find the value that matches the difference score you calculated. Read to the top of the column to find the percentage of the standardization sample with a standard score difference of at least this magnitude. Circle this percentage on the Percentage of Sample With This Difference column. If the exact difference score is not listed in the table because it is between

two columns, report the percentage as a range (e.g., "between 15% and 20%") and circle that range in the Record Form. If the observed difference score is less than the number in the first column of 25%, circle "> 25%"; if the difference score is greater than the number in the 1% column, circle "< 1%" on the Record Form.

There are numerous possible comparisons between CASL-2 test scores, and many will be statistically significant. However, not all will be clinically meaningful. Therefore, in most cases it is only necessary to record large score differences that occur less than 10% of the time in the standardization sample. See discussion in Chapter 3 for further guidance in determining a test score comparison strategy.

In the example shown in Figure 2.5, Jane's Meaning from Context standard score of 119 is 25 points higher than her Inference standard score of 94. This 25-point difference is statistically significant because it exceeds the critical value of a 6-point difference between these two tests, as shown in Table A.7. This difference occurred 10% of the time among the 7- to 9-year-olds in the standardization sample (as shown in Table A.11).

Index Scores

Use the Index Scores section in the Record Form to calculate any of the six index scores (General Language Ability Index, Receptive Language Index, Expressive Language Index, Lexical/Semantic Index, Syntactic Index, Supralinguistic Index). Be sure to complete the appropriate section for the age or grade of the examinee (age and grade ranges are indicated in the left column of the page). Find the row that corresponds to the index score of interest for the examinee's age or grade, and copy the standard scores (from the Score Summary section, Standard Score column) only for those tests listed in that row. Then, add the standard scores across the row and enter this value in the Total column. Copy the Total(s) to the corresponding Sum of Standard Scores column below. If not all of the tests that comprise the index were administered, the index score cannot be calculated. Next, convert the Sum of Standard Scores to a standard score using the normative tables in the appendix (for age-based standard scores use Table A.2; for grade-based standard scores use Table A.5). Note that a Supralinguistic Index cannot be calculated

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for ages 3–6 years because Inference is the only Supralinguistic test available for these ages.

In this example, illustrated in Figure 2.6, Jane is age 7 years, 4 months, and therefore the section of Table A.2 for ages 7–9 years is referenced. The sum of the standard scores used to calculate the General Language Ability Index (GLAI) is 495, which converts to an index standard score of 98. Following the same method, the sum of the standard scores for each index is calculated and converted to the corresponding standard score using Table A.2.

Use the index standard score to determine the confidence interval, percentile rank, and descriptive range as previously described. In this example, Table A.2 shows that the 95% confidence value for the General Language Ability Index (GLAI) is 2 for this 7-year-old examinee (you should use the same level of confidence that you used for the individual CASL-2 tests). The value of 2 is added and subtracted from the standard score of 98, resulting in a confidence interval of 96–100. Similarly, Table A.2 displays that the percentile rank of 45 corresponds to the GLAI standard score of 98. This score is in the Average range. The other index scores are completed in the same manner, as shown in Figure 2.6.

that differences between an examinee's scores can be visually compared. As shown in Figure 2.7, this chart also illustrates the variance of each score from the average of his or her typically developing peers, with shaded areas marking one and two standard deviations from the mean of 100.

Index Score Comparisons

Statistical comparisons between an examinee's index standard scores can be calculated in the same manner described previously for CASL-2 test score comparisons. Record these comparisons in the Standard Score Comparisons of CASL-2 Indexes section of the Record Form, as shown in Figure 2.7. Jane has a 15-point difference between her Receptive Language Index standard score of 106 and her Expressive Language Index standard score of 91. This difference is statistically significant (greater than 6, the critical value presented in Table A.8) and occurred between 1% and 5% of the time within the normative sample (as listed in Table A.15).

Standard Score Profile of the CASL-2 Indexes

By folding in the back page, you can transfer the standard scores for each index into the Standard Score Profile of CASL-2 Indexes section of the Record Form. As with the individual test scores, you can plot each index standard score on a line chart, so



Two data sets were collected to support publication of the CASL-2: a nationally representative standardization sample and a clinical sample. The standardization sample consisted of 2,394 children, ranging in age from 3 years, 0 months to 21 years, 11 months. The standardization study was conducted by data collectors who worked in 117 sites in 29 states, representing all four major U.S. Census regions. Data collectors obtained access to examinees through schools, neighborhoods, or community organizations. The goal was to collect a sample that was representative of the U.S. population in terms of gender, race/ethnicity, and parental educational level (a well-established index of socioeconomic status). Individuals with severe disabilities (e.g., intellectual disability, moderate to severe autism spectrum disorder) were excluded from the standardization sample, while those with mild disabilities were included as long as they spent most of their school day in a general education classroom (not gifted or special education), at a grade level appropriate to the child's chronological age.

Table 4.2 details the demographic characteristics of the CASL-2 standardization sample with regard to gender, race/ethnicity, parental education level, and region, along with corresponding percentages from the U.S. Census for comparison (U.S. Bureau of Census, 2012). Most demographic categories closely match the proportions of the U.S. Census figures, exceeding the guideline that they be within 5% of the population at the time the normative data are collected (Andersson, 2005). For parents' educational level, there is some divergence between the sample and the U.S. Census figures wherein those with a bachelor's degree or higher were slightly overrepresented while those with some college were slightly underrepresented. Additionally, geographic region showed some variance, wherein the Northeast was slightly overrepresented while the Midwest was slightly underrepresented.

Table 4.3 delineates the stratification of the normative sample by age year. The sample is most heavily concentrated at the younger ages, which reflects the need for narrower normative age groups when language development is most rapid. Table 4.4 shows the stratification of the individuals in kindergarten through 12th grade who were the basis of the development of the grade-based norms. The total sample size for the grade norms is smaller than that for the age norms because the age norms include individuals who either had not yet entered school or were in postsecondary education.

The clinical sample was collected by recruiting data collectors who had access to individuals with the following disorders: expressive and/or receptive language disorder, hearing impairment, autism spectrum disorder, social (pragmatic) communication disorder, intellectual disability, learning disability, and developmental delay. To be included in the sample, these individuals needed to have a clinical diagnosis and be receiving special services. Table 4.5 shows the demographic composition of the clinical sample, which consisted of 271 individuals. Because of the inclusion criteria, the clinical sample was not expected to replicate the U.S. Census demographic distribution. However, the sample does offer some diversity in terms of ethnicity and parental educational level. Males outnumbered females, as is often the case in clinical samples. Further descriptions of the diagnostic composition of the sample, as well as the analyses conducted with the clinical sample, are detailed in Chapter 5.

Characteristic	п	% of sample	U.S. Census % ^a
Gender			
Male	1,164	48.6	49.2
Female	1,230	51.4	50.8
Race/Ethnicity ^b			
Asian	68	2.8	4.6
Black/African American	344	14.4	14.2
Hispanic Origin	527	22.0	22.9
Native Hawaiian/Pacific Islander	8	0.3	0.2
American Indian/Alaska Native	9	0.4	0.9
White	1,357	56.7	53.8
Other	81	3.4	3.5
Parents' educational level			5
No high school diploma	226	9.4	12.3
High school graduate	706	29.5	26.8
Some college	582	24.3	30.6
Bachelor's degree or higher	880	36.8	30.2
U.S. geographic region			
Northeast	558	23.3	17.9
South	873	36.5	38.1
Midwest	374	15.6	22.3
West	589	24.6	21.8

Table 12 Domographic	Charactoristics	of the CASL-2	Standardization	Sampla
Iable 4.2. Demographic	Unaracteristics	UI LITE GAGE-Z	Stanuaruization	Sample

Note. Total N = 2,394. Due to rounding, total percentages may not equal 100.0%. ^aU.S. Census Bureau (2012). Race/ethnicity based on ages 3–21; parents' educational level based on ages 25–64 (those most likely to have children within the CASL-2 age range); gender and region based on the general population. ^bIndividuals of Hispanic origin are included in the Race/Ethnicity category under Hispanic Origin; the remaining Race/ Ethnicity categories include only individuals of non-Hispanic origin. Individuals of two or more races (*n* = 76) are included in the Other category. Presente with

	Table 4 Breakdov	. 3. Age wn of the		Table 4.5. Demographi of the CASL-2 Clir	c Characterist lical Sample	ics	
	CASL-2 Ag Normative	ge-Based e Sample		Characteristic	n	% of sample	
	Age	п		Gender			
	3	316		Male	165	60.9	
	4	348		Female	106	39.1	
	5	230		Age in years		••••••	
	6	218		3-4	45	16.6	
	7	237		5-6	38	14.0	
	8	133		7–9	85	31.4	
	9	125		10-12	62	22.9	
	10	132		13-21	41	15.1	
	11	108					
	12	100			C	26	
	13	55		Rlack/African American	63	23.0	
	14	53		Hispanic Origin	64	23.6	
	15	58		Native Hawaijan/Pacific Island	ar O	0.0	
	16	45		American Indian/Alaska Native	2	0.7	
	1/	52		White	128	47.3	
	18	4/ 51		Other	7	2.6	
	19	52	+_C		•••••	••••••	
	20	34		Parents' educational level	10	15 5	
				No high school diploma	42	15.5	
	Note. N = 2,394.		\mathbf{O}	High school graduate	123	45.4	
	T			Some college	48	1/./ 21.4	
	Iable 4.4 Breakdov	4. Grade		Bachelor's degree of higher	58	21.4	
	CASL-2 Gra	ade-Based		Note. $N = 271$.	lad in the Pace /F	hpicity	
	Normativ	e Sample		category under Hispanic Origin; the rem	naining Race/Ethr	nicity	
	Grade	n		categories include only individuals of no of two or more races ($n = 2$) are include	on-Hispanic origin d in the Other cat	. Individuals egory.	
	К	264	5				
		190					
	2	216					
	3	139	•				
	4	133					
0	5	122					
	6	108					
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	7	86					
	8	65					
	9	58					
	10	45					
	11	59					
$\sim$	12	53					
	Note. N = 1,538.						

## Item Coding and Scoring

The unique responses given during the standardization study were categorized as correct or incorrect, as detailed in the previous section describing the pilot study. A similar process was conducted in order to designate Preferred and Acceptable responses across those correct responses within expressive tests. The scoring criteria developed during the pilot study were applied and updated as needed by a trained group of research assistants in order to code all responses for the standardization study.

Once all responses were coded, a final list of correct and incorrect responses was developed for every item across all expressive tests. The final correct and incorrect responses listed on the Record Form and in the Test Easel pages reflect these criteria for inclusion and were based on the frequency of responses in the standardization sample, as well as the judgment of the author and a group of consultants that included practicing speech–language pathologists.

## **Scoring for Dialectical Differences**

As discussed in Chapter 3 of this manual, alternative correct responses are provided for individuals who speak African American English or a similar dialect. The scoring rules for these alternative responses, developed by an expert in the field of African American dialect, were applied to 75 examinees. from the standardization sample who spoke African American or Southern English. In most cases (67%), raw scores did not change after application of the alternative scoring. In 22% of the cases, raw scores increased by 1 to 2 points. In only 11% of the cases, the raw score increased by 3 or more points after application of the alternative scoring. Thus, in a small number of cases, application of the alternative scoring will result in a score that captures the examinee's underlying linguistic abilities better by not penalizing nonstandard English usage.

## **Development of Final Test Forms**

For each CASL-2 test, the standardization study responses were analyzed together using the Rasch one-parameter model as detailed in the previous section describing the pilot study. Analyses were conducted using jMetrik (Meyer, 2014, 2015). Based on the Rasch analysis of standardization data from each CASL-2 test, a few items were deleted from each of the tests. Thirty-six items in total were eliminated from the standardization items, based on problems with item fit as determined by the Rasch analysis. Final item order was determined using the Rasch estimate of item difficulty, such that for each of the CASL-2 tests, items progressed from easiest to most difficult. All items selected for final publication meet Rasch parameters of model fit and did not demonstrate systematic bias by gender, ethnicity, or socioeconomic status.

## Establishing the Basal and Ceiling Rules

In developing the final basal and ceiling criteria for the 14 CASL-2 tests, the goal was to ensure a reliable, accurate, and efficient administration for each test and to have consistent rules across tests, if possible. Lengthy basal and ceiling rules (six consecutive correct and six consecutive incorrect responses) were used during the standardization study to optimize data collection for item analysis by obtaining a large number of item responses from each participant. However, such rules would be impractical in a clinical setting, where the aim is to minimize the burden on the examiner and examinee by collecting only the amount of data required for accurate assessment.

Final basal and ceiling rules were determined by examining the effect that different rule options would have on the total raw score obtained for each test. The aim was to find a single basal and a single ceiling rule that could be used for all CASL-2 tests, striking an optimal balance between validity and efficiency in administering the test. The basal rule of four correct items in a row was selected because its application resulted in significantly less variance in obtained raw scores than did rules of three or fewer consecutive correct items. Similarly, the ceiling rule of four incorrect items in a row was selected because the application of a ceiling of five or more incorrect items in a row resulted in significantly more variance in obtained raw scores. In addition, basal rules of five or more correct items in a row did not appreciably improve measurement properties and would have increased testing time.

The basal rule of four consecutive correct items and the ceiling rule of four consecutive incorrect items represent a departure from the original CASL basal and ceiling rules of three correct items in a row and five incorrect items in a row, respectively. However, the "four in a row" rule was selected for both the basal and ceiling because it provided the best balance between accuracy and efficiency across all of the CASL-2 tests.

## **Derivation of Standard Scores**

To construct the normative groups, the CASL-2 raw score means and standard deviations were examined to determine an optimal age-stratification scheme. As expected based on the typical progression seen in language development, raw scores increased most rapidly at the youngest ages and then continued to increase through the school-age years, though less steeply. Therefore, norms for ages 3 to 7 were created using 3-month intervals; norms for ages 8 to 12 were created in 6-month intervals; norms for ages 13 to 15 were created in 1-year intervals; and norms for ages 16 to 21 were based on a combination of age years. Grade-based norms were based on Fall and Spring terms for each year, beginning with kindergarten.

The raw score distributions for each CASL-2 test were evaluated separately in each age and grade stratum. In most cases, meaningful departures from normality occurred, especially in the extreme upper and lower age strata. Therefore, instead of calculating linear standard scores, normalized raw score distributions were reconstituted from percentile ranks in the original raw score distributions (Anastasi & Urbina, 1997). The normalized distributions were used to estimate means and standard deviations for each age group, then smoothing methods were applied. These methods use the stable variance of the entire standardization sample to adjust for random fluctuations in variance due to any sample idiosyncrasies within each age and grade stratum.

The estimated smoothing curves for the CASL-2 data conformed to simple growth curve expectations that is, second-order polynomials (steep growth in early years, flattening out in later years) or thirdorder polynomials (slow growth in early years, steeper growth in middle years, and flattening growth toward maturity). Interpolation was used to establish consistent data points along the developmental curve. Some manual hand-smoothing was required at the extremes of the standard score distributions to ensure the expected progression of scores when an individual transitions from one age stratum to the next.

Inspection of the final calculated standard score distributions revealed excellent measurement properties. The standard scores conform to expectations of uniform monotonic growth from year to year around norm group means, but also—and more importantly—in the range of extremely low scores, where clinical decision-making is focused.

## Derivation of Index Scores

Based on the Integrative Language Theory, index scores were created to include the most representative CASL-2 tests across the age range to reflect spoken language ability more broadly than is possible with the individual tests. These six index scores are: General Language Ability Index (GLAI), Receptive Language Index (RLI), Expressive Language Index (ELI), Lexical/Semantic Index (LSI), Syntactic Index (SI), and Supralinguistic Index (SPI) scores.

Due to the nature of language development, the type of skills assessed would necessarily change over time. Confirmatory factor analysis (CFA) was used to determine which CASL-2 tests should comprise the index scores at different ages. CFA results supported different test combinations for five different age groups (see Chapter 5 for discussion). Using the individual CASL-2 tests with the highest factor loadings within each category, combined with the author's expertise in developmental theory, the most representative tests for each index were selected separately for each of the age groupings. Additionally, the GLAI required at least one receptive test to be included at each age grouping.

A distribution of the sums of standard scores was used to derive each index score (e.g., Receptive Vocabulary, Synonyms, and Sentence Comprehension standard scores were summed for the Receptive Language Index for the 7 to 9 age group). Sums of the test standard scores rather than raw scores were used to ensure that the component tests were equally weighted in the index scores. The distribution of sums of standard scores met statistical criteria for normality, and linear standard scores were calculated from raw score means and standard deviations for all individuals in the standardization sample who took the tests required for each index score. Age stratification is not necessary for index scores because age is accounted for in the initial conversion of test raw scores into standard scores.

#### Derivation of Test-Age and Grade Equivalent Scores

A test-age equivalent represents the age, in years and months, at which a particular raw score is the average score. A grade equivalent represents the grade placement, in grade and term, at which a particular raw score is the average score. The age-based norms for each test were used to develop the test-age equivalents and the grade-based norms were used to develop the grade equivalents. These scores were developed by determining the raw score that corresponded to a standard score of 100 for each of the age groups and grade groups, then linking it to the midpoint for that age or grade group.

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							-							
	Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
	>99.9	160	70–71	49–62	49–69	63–71	46-50	61–66	-	80-91	42–51	34–62	63–65	62
	>99.9	159	-	-	-	62	-	60	-	79	-	-	-	-
	>99.9	158	-	48	48	-	45	-	-	78	41	33	62	61
	>99.9	157	69	-	-	-	-	59	-	77	-	-	-	-
ŕ	>99.9	156	-	47	47	61	44	-	-	76	40	32	61	60
	>99.9	155	68	-	-	-	-	58	-	-	-		60	-
	>99.9	154	-	46	46	60	-	-	-	75	39	31	) -	59
	>99.9	153	-	-	-	-	43	57	-	74	-	)- <	59	(
	>99.9	152	67	-	-	59	-	-	-	73	38	30	-	
	>99.9	151	-	45	45	-	-	56				-	58	58
	>99.9	150	-	-	-	58	42	-	-	72	37		57	9-
	99.9	149	66	44	44	-	-	55	-	71		29	()	57
	99.9	148	-	-	-	-	41	-	-	70	36	- 0	56	-
	99.9	147	65	43	43	57	-	54	-		-	28	-	56
ſ	99.9	146	-	-	-	-	-	-	- (	69	35	(-)	55	-
	99.9	145	-	42	42	56	40	53	<b>—</b>	68	-	27	-	55
	99.8	144	64	-	-	-	-			67	34	) -	54	-
	99.8	143	-	41	41	55	-	52	-	66	-	26	53	54
	99.7	142	63	-	-	-	39		- (	-	33	· _	-	-
	99.7	141	-	-	-	54	-	51	56	65	<b>9</b> -	25	52	5
	99.6	140	-	40	40	-	38		-	64	32	-	-	-
	99.5	139	62	-	-	53	Ga	50	55	63	-	-	51	5
	99	138	-	39	39		J	-	(-/	-	31	24	50	-
	99	137	61	-	-		37	49		62	-	-	-	5
	99	136	-	38	38	52	▼ -	-	54	61	30	23	49	-
Ì	99	135	-	-	-0	F	-	48	-	60	-	-	-	50
	99	134	60	37	37	51	36		-	-	29	22	48	-
	99	133	-	-		-	-	47	53	59	-	-	47	4
	98	132	-	_	Y	50	35	-	-	58	28	21	-	-
	98	131	59	36	36			46	52	57	-	-	46	4
	98	130	_		-	49	-	-	-	56	27	-	-	-
	97	129	58	35	35	1	34	45	-	-	-	20	45	4
	97	128	-	- ·	Ē	-	-	-	51	55	26	-	44	-
	96	127	-	34	34	48	-	44	-	54	-	19	-	4
	96	126	57	-		_	33	-	50	53	25	-	43	-
Ì	95	125	-	33	33	47	-	43	-	-	-	18	-	4
	95	124	56 🔶	X-/	-	-	32	42	-	52	-	-	42	-
	94	123	-	32	32	46	-	-	49	51	24	17	-	4
	93	122		-	-	-	-	41	-	50	-	-	41	-
	92	121	55	-	-	45	31	-	48	-	23	-	40	-

Table A.1. Raw Score to Standard Score Conversions by Age (continued)

	CASL-2 Test Confidence Values														
RV ANT SYN EV SE GM SC GJ NL MC INF P												PL			
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3			
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3			

Appendix

						Ages 8–01	to 8–5						
Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
91	120	-	31	31	_	_	40	_	49	_	16	-	43
90	119	-	-	-	44	-	-	-	48	22	-	39	-
88	118	54	30	30	-	30	39	47	47	-	15	-	42
87	117	-	-	-	-	-	-	-	46	21	-	38	-
86	116	53	29	29	43	29	38	46	-	-	14	37	41
84	115	-	-	-	-	-	-	-	45	20	-	-	-
82	114	-	28	28	42	-	37	-	44	-	13	36	40
81	113	52	-	-	-	28	-	45	43	19	_		-
79	112	-	-	-	41	-	36	-	-	- (		35	39
77	111	51	27	27	-	-	-	44	42	18	12	34	C
75	110	-	-	-	40	27	35	-	41	-		-	38
73	109	-	26	26	-	-	-	-	40	17	11	33	7-
70	108	50	-	-	39	26	34	43		-	-	C	37
68	107	-	25	25	-	-	-	-	39	16	10	32	-
66	106	-	-	-	-	-	33	42	38	-	- (	31	36
63	105	49	24	24	38	25	-		37	15	9	9-	-
61	104	_	-	-	-	_	32		36			30	35
58	103	48	23	23	37	-	-	41	-	14		-	-
55	102	-	-	-	-	24	<b>3</b> 1		35	-	8	29	34
53	101	-	-	-	36	-			34	13	-	28	-
50	100	47	22	22		23	30	40	33	_	7		
47	99	-	-	-	35	A - C		39		12	-	27	-
45	98	46	21	21	-		29	- (	32	-	-	-	32
42	97	-	-	-	34	22	-	38	31	-	-	26	31
39	96	45	20	20	-		28	37	30	11	6	-	-
37	95	-	-	-		-	-	36	29	_	_	25	30
34	94	44	-	-	33	21	27	<u>J</u>	28	10	-	_	-
32	93	-	19	19	V		- )	35	-	-	-	24	29
30	92	43	-	-	32	-	26	34	27	-	-	23	28
27	91	-	18	18	-	20	5-	33	26	9	5	-	-
25	90	-	_	-	31	_	_	-	25			22	27
23	89	42		-		19	25	32	24	8	-	-	26
21	88	<b>*</b>	17	17	30	_	-	31	23	-	-	21	_
19	87	41	-	- (		-	24	-	-	-	4	-	25
18	86		16	16	29	18	-	30	22	7	-	20	_
16	85	40	_		_	_	23	29	21	_	_	19	24
14	84		.15	15	_	_	_	28	20	6	_	_	23
13	83	39			28	17	22	_	19	-	_	18	-
12	82	_		-	_			27	18	_	3	_	22
10	81	38 🛦	14	14	27	_	21	26	_	5	-	17	21

Table A.1. Raw Score to Standard Score Conversions by Age (continued)

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; PL = Pragmatic Language

		C	ASL-2	Test Co	onfiden	ce Valu	es					
	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3

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	Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	мс	INF	PL
	9	80	-	-	-	-	16	-	25	17	-	-	-	-
	8	79	37	13	13	26	-	20	-	16	4	-	16	20
	7	78	-	-	-	-	-	-	24	15	-	-	-	-
	6	77	36	-	-	25	15	-	23	14	-	2	15	19
	5	76	-	12	12	-	-	19	-	13	3	-	14	18
	5	75	35	-	-	24	-	-	22	-	-	Ŧ	-	-
	4	74	-	11	11	-	14	18	21	12	2		13	17
	4	73	-	-	-	23	-	-	20	11	-	1	-	16
	3	72	34	10	10	-	13	17	-	10	-	-	12	-
	3	71	-	-	-	-	-	-	19	9 (	1	-	- (	15
	2	70	33	-	-	22	-	16	18	8	- \		11	9-
	2	69	-	9	9	-	12	-	-	-	0	-	10	14
	2	68	32	-	-	21	-	15	17	7	_	0		13
	1	67	-	8	8	-	-	-	16	6	-	-	9	-
	1	66	31	-	-	20	11	14	15	5	-	(-)	-	12
	1	65	-	-	-	-	-	-	_	4		V	8	-
	1	64	30	7	7	19	-		14	3	-	) –	-	11
	1	63	-	-	-	-	10	13	13		-	<b>K</b> -	7	10
	1	62	29	6	6	18			12	2	_	-	-	-
	0.5	61	-	-	-	-	-	12	-		<b>J</b> -	-	6	9
•	0.4	60	28	5	5	-	9	<b>-</b>	11	0	-	-	5	8
	0.3	59	-	-	-	17	Co	11	10	X	-	-	-	-
	0.3	58	27	-	-	- 1		-	6	_	-	-	4	7
	0.2	57	-	4	4	16	8	10	9	-	-	-	-	-
	0.2	56	-	-			_		8	-	-	-	3	6
	0.1	55	26	3	3	15	7	9	7	-	-	-	-	5
	0.1	54	-	-		1 -	- /		_	-	-	-	2	-
	0.1	53	25	2	2	14	~	8	6	-	-	-	1	4
	0.1	52	-	-		-	6	-	5	-	-	-	-	3
	0.1	51	24			13		7	-	-	-	-	0	-
	<0.1	50		1	1	-	_		4		-			2
	<0.1	49	23	-	- +		5	-	3	-	-	-	-	-
	<0.1	48	-	0	0	12	_	6	2	-	-	-	-	1
	<0.1	47	22	-			-	-	-	-	-	-	-	0
	<0.1	46	-	-		11	4	5	1	-	-	-	-	-
	<01	45	21		-	_	_	_	0	_	_	_	_	_
	<0.1	44		Y-V	_	10	_	4	_	_	-	_	-	_
	<0.1	43	20		-	-	3	-	-	-	-	-	-	-
	<0.1	42			-	9	_	3	-	-	-	_	-	-
	<0.1	41	-	-	-	-	2	-	-	-	-	-	-	-
	<0.1	40	0-19	_	-	0-8	0-1	0-2	-	_	-	_	-	_

Table A.1. Raw Score to Standard Score Conversions by Age (continued)

		C	ASL-2	Test Co	onfiden	ce Valu	es					
RV ANT SYN EV SE GM SC GJ NL MC INF PL												PL
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3

						Ages 8–6 t	o 8–11						
Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
>99.9	160	71	51–62	51–69	65–71	47–50	62–66	-	81–91	44-51	39–62	-	-
>99.9	159	70	-	-	64	-	-	-	80	-	-	65	-
>99.9	158	-	50	50	-	46	61	-	79	43	38	-	-
>99.9	157	69	-	-	63	-	-	-	78	-	-	64	-
>99.9	156	-	49	49	-	-	60	-	-	42	37	-	-
>99.9	155	-	-	-	62	45	-	-	77	-	-	63	62
>99.9	154	68	48	48	-	-	59	-	76	41	36	62	-
>99.9	153	-	-	-	61	-	-	-	75	-	-	-	61
>99.9	152	-	47	47	-	44	58	-	-	40 (	35	61	-
>99.9	151	67	-	-	60	-	-	-	74		-	60	60
>99.9	150	_	46	46	-	43		-	73	39	34	-	
99.9	149	66	_	-	-	-	-	-	72	-	-	59	59
99.9	148	-	45	45	59	-	56	-	- 5	38	33	C	<b>J</b> _
99.9	147	-	-	-	-	42	-	-	71	-		58	58
99.9	146	65	44	44	58	-	55	-	70	37	32	57	-
99.9	145	-	-	_	_	_	_		69			2-	57
99.8	144	-	_	-	57	41	54	-	-	36	31	56	-
99.8	143	64	43	43	_	-	- ,	-	68	-		-	56
99.7	142	_	_	-	56	40	53		67	35	30	55	-
99.7	141	63	42	42	-	-			66		-	54	55
99.6	140	_			55	-	52	56	_	34	29	 –	
99.5	139	-	41	41	-	. 39		-	65	-	28	53	54
99	138	62	-	_	-		51	-	64	33	_	-	-
99	137	-	40	40	54	38	-	55	63	-	27	52	-
99	136	-	_	-	(		50	6	-	32	-	51	53
99	135	61	20	20	52		_	54	62	_	26	_	_
99	134	-	_	_	(ZA	37	49		61	31	-	50	52
99	133	-	38	38	52	- 4	_	-	60	_	25	-	-
98	132	60	-	-	-		48	53	-	30	_	49	51
98	131	-	37	37	51	36	47	-	59	-	24	48	_
08	120	50					_		58	20			50
97	120	59	26	36		38	-	52	57	23	22	47	50
97	129	-	30	50	50	39	40	52	57	- 28	23	4/	- 49
96	120	58		- (	30	_	45	51	56	20	22	46	43
96	126	-	35	25	49	3/		_	55	27	_	45	48
50	120		- 33	55		J4	_		55	<i>L1</i>	-	43	40
95	125	-	-		-	-	44	-	54	-	21	-	-
95	124	5/	34	34	48	-	-	50	-	26	-	44	4/
94	123	-			-	33	43	-	53	-	20	-	-
93	122	56	35	33	4/	-	-	-	52	25	-	43	46

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; PL = Pragmatic Language

		c	ASL-2	Test Co	onfiden	ce Valu	es					
	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3

14

Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	S	C G	J N	L	мс	INF	PL
91	120	-	32	32	46	-	-	-		2	4	-	-	45
90	119	55	-	-	-	-	41	4	8 50	) -	-	18	41	-
88	118	-	31	31	-	31	-	-	- 49	9 2	3	17	-	44
87	117	-	-	-	45	-	40	-	- 48	3 -		-	40	-
86	116	54	30	30	-	30	-	4	7 –	2	2	16	39	43
84	115	-	-	-	44	-	39	-	4	7 -	-	F	-	-
82	114	53	29	29	-	-	-	-	- 40	5 2	1	15	38	42
81	113	-	-	-	43	29	38	4	5 4	5 -	·	)- 🛰	37	-
79	112	-	28	28	-	-	-	-		2	0	14	-	41
77	111	52	-	-	42	-	37	4	5 44	1		-	36	-
75	110	-	-	-	-	28	-	-	- 43	3 1	9	13		40
73	109	-	27	27	41	-	36	-	- 42	2	-	-	35	-
70	108	51	-	-	-	27	-	4	4 4	1 1	8	12	34	39
68	107	-	26	26	-	-	35	-		-		-	<b>)</b> -	-
66	106	50	-	-	40	-	-	-	- 40	) -	. (	11	33	-
63	105	-	25	25	-	26	34	4	3 39	) 1			-	38
61	104	-	-	-	39	-	-		38	3		10	32	-
58	103	49	24	24	-	-	33	4	2 –	1	5	-	31	37
55	102	-	-	-	38	25	* E	) ·-	- 3			9	-	-
53	101	-	23	23	-	-	32	-	- 30	i 1	5	-	30	36
50	100	48	-	-	37	24	<b>-</b>	4	1 3!	5) -	-	8	-	-
47	99	-	22	22	-	Co	31	4	<b>D</b> -	1.	4	-	29	35
45	98	47	-	-		-	-	G	. 34	1 -	-	-	28	34
42	97	-	-	-	36	23	30	3	3	3 1	3	7	-	-
39	96	46	21	21	A	-	-	3	3 32	2 -	-	-	27	33
 37	95	-	-	-0	35	-	29	-	- 3	L -	-	-	-	32
34	94	45	20	20	<b>)</b> -	22	~ C	3	7 –	1	2	-	26	-
32	93	-	-		34		28	3	5 30	) -		6	-	31
30	92	44	19	19	-	-	-	3	5 29	) 1	1	-	25	30
27	91	-			33	21	27	-	- 28	3 -	-	-	24	-
25	90	-		-	-	-	-	34	4 2	7 10	C	-	-	29
23	89	43	18	18	32	20	26	3	3 20	5 -		5	23	28
21	88	-	<b>/</b> - <b>*</b>	Ē	-	-	-	-		-	-	-	-	-
19	87	42	17	17	31	-	25	3	2 2	5 9	)	-	22	27
18	86		-		_	19	-	3	1 24	4 -	-	-	21	26
16	85	41	16	16	-	-	-	-	- 23	3 8	3	4	-	-
14	84	-	X-/	▼_	30	-	24	3	D 22	2 -	-	-	20	25
13	83	40		-	-	18	-	2	э –	-	-	-	-	24
12	82		15	15	29	-	23	2	3 2	L 7	7	-	19	-
10	81	39	-	-	-	-	-	-	- 20	) -	-	3	18	23

	CASL-2 Test Confidence Values														
RV ANT SYN EV SE GM SC GJ NL MC INF P												PL			
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3			
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3			

						Ages 8–6	to 8–11						
Percentile	Standard score	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
9	80	-	14	14	28	17	22	27	19	6	-	_	-
8	79	38	-	-	-	-	-	26	18	-	-	17	22
7	78	-	13	13	27	16	21	-	17	-	-	-	21
6	77	-	-	-	-	-	-	25	-	5	-	16	-
5	76	37	-	-	26	-	20	24	16	-	2	_	20
5	75	-	12	12	-	15	-	23	15	4	-	15	19
4	74	36	-	-	25	-	19	-	14	-	-	14	-
4	73	-	11	11	-	-	-	22	13	3	-	-	18
3	72	35	-	-	-	14	18	21	12	- '	1	13	17
3	71	-	10	10	24	-	-	-	-			-	C
2	70	34	-	-	-	-	17	20	11	2		12	16
2	69	-	-	-	23	13	-	19	10	-	-	11	15
2	68	33	9	9	-	-	-	-	9	1	0	C	-
1	67	-	-	-	22	-	16	18	8	-	-	10	14
1	66	32	8	8	-	12	-	17	-	)	-	-	13
1	65	-	-	-	21	-	15	16	7	0		9	-
1	64	-	-	-	-	11	-	-	6			-	12
1	63	31	7	7	20	-	14	-15	5	-		8	-
1	62	-	-	-	-	-	÷.	14	4	-	_	7	11
0.5	61	30	6	6	19	10	13		3		-	-	10
0.4	60	_	_	-	-	-	6	13	-	) -	-	6	-
0.3	59	29	5	5	-		12	12	2	-	-	-	9
0.3	58	-	-	-	18	9	9-	11	1	-	-	5	8
0.2	57	28	-	-	-		11	C	0	-	-	4	-
0.2	56	-	4	4	17	_	-	10	-	-	-	-	7
0.1	55	27	-	-		8	10	9	-	-	-	3	6
0.1	54	-	3	3	16	_	6	U-	-	-	-	_	_
0.1	53	26	_	-	V		(-)	8	-	-	-	2	5
0.1	52	-	2	2	15	7	9	7	-	-	-	1	4
0.1	51	-	_ 1	-	-	-	5-	-	-	-	-	-	-
<0.1	50	25	_	_	14	6	8	6				0	3
<0.1	49	_		1		-	_	5	_	_	_	_	2
<0.1	48	24		_	13	_	7	4	-	-	-	_	_
<0.1	47		0	0		5	-	-	-	-	-	-	1
<0.1	46	23	-	-		_	6	3	-	-	-	-	_
<01	45		_		12	_	_	2	_	_	_	_	0
<0.1	44	22			-	4	5	-	_	_	_	_	-
<0.1	43	_		-	11	т —	-	1	_	_	_	-	_
<0.1	42	21		-	-	_	4	0	_	_	_	_	_
<0.1	41	-	N	_	10	3	-	-	-	-	-	-	-
<0.1	40	0-20	<b>N</b> _	_	0-9	0-2	0-3	_	_	-	_	_	_

Table A.1. Raw Score to Standard Score Conversions by Age (continued)

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; PL = Pragmatic Language

		C	ASL-2	Test Co	onfiden	ce Valu	es					
	RV	ANT	SYN	EV	SE	GM	SC	GJ	NL	МС	INF	PL
90% confidence interval ±	6	5	6	6	7	7	6	2	3	4	3	3
95% confidence interval ±	7	6	7	7	9	8	8	3	3	4	3	3

				Ages 7–0	0 to 9–11				
				Sums of star	ndard scores	;			
Percentile	Standard score	GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentile
>99.9	160	-	454-466	630-640	472-480	-	480	160	>99.9
>99.9	159	-	452-453	626-629	469–471	-	477–479	159	>99.9
>99.9	158	-	449–451	622-625	466-468	-	474–476	158	>99.9
>99.9	157	-	447–448	619–621	464-465	-	471–473	157	>99.9
>99.9	156	-	444-446	615–618	461–463	-	468–470	156	>99.9
>99.9	155	-	442–443	611–614	458-460	-	465–467	155	>99.9
>99.9	154	780–784	439–441	607–610	456-457	608-610	462-464	154	>99.9
>99.9	153	775–779	436-438	604-606	453–455	604–607	459-461	153	>99.9
>99.9	152	770–774	434–435	600-603	450-452	601–603	456-458	152	>99.9
>99.9	151	764–769	431–433	596-599	448-449	597–600	453-455	151	>99.9
>99.9	150	759–763	429–430	592–595	445–447	593-596	450-452	150	>99.9
99.9	149	754–758	426-428	589–591	442-444	589-592	447–449	149	99.9
99.9	148	749–753	424–425	585-588	440-441	586-588	444-446	148	99.9
99.9	147	744–748	421-423	581–584	437–439	582-585	441-443	147	99.9
99.9	146	739–743	419-420	577–580	434-436	578-581	438-440	146	99.9
99.9	145	734–738	416–418	574-576	432-433	574-577	435-437	145	99.9
99.8	144	728–733	414–415	570-573	429–431	570-573	432-434	144	99.8
99.8	143	723–727	411–413	566-569	426-428	567-569	430-431	143	99.8
99.7	142	718–722	409–410	562-565	424-425	563-566	427–429	142	99.7
99.7	141	713–717	406–408	559-561	421-423	559-562	424–426	141	99.7
99.6	140	708–712	404-405	555-558	418-420	555-558	421–423	140	99.6
99.5	139	703–707	401–403	551–554	416–417	552-554	418-420	139	99.5
99	138	698-702	399-400	547-550	413-415	548-551	415–417	138	99
99	137	692-697	396-398	544-546	410-412	544–547	412-414	137	99
99	136	687–691	394-395	540-543	407–409	540-543	409–411	136	99
99	135	682-686	391–393	536-539	405–406	537–539	406-408	135	99
99	134	677–681	389-390	532-535	402-404	533-536	403-405	134	99
99	133	672–676	386-388	529-531	399-401	529-532	400-402	133	99
98	132	667–671	384-385	525-528	397–398	525-528	397–399	132	98
98	131	662-666	381–383	521–524	394-396	521–524	394-396	131	98

 Table A.2. Sum of Standard Scores to Index Standard Score Conversions by Age (continued)

Note: GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; SI = Syntactic Index; SPI = Supralinguistic Index

CASL-2	Index C	onfiden	ice Valu	es		
	GLAI	RLI	ELI	LSI	SI	SPI
90% confidence interval ±	2	4	3	4	3	3
95% confidence interval ±	2	5	4	4	4	3

A.2 Ages 7-0 TO 9-11

				Ages 7–	0 to 9–11				
				Sums of sta	ndard scores	;			
Percen	Standard tile score	d GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentil
98	130	657–661	379–380	517–520	391–393	518-520	391–393	130	98
97	129	651–656	376–378	514–516	389–390	514–517	388-390	129	97
97	128	646-650	374–375	510-513	386-388	510-513	385-387	128	97
96	127	641–645	371–373	506-509	383-385	506-509	382-384	127	96
96	126	636–640	369–370	502-505	381–382	503-505	379–381	126	96
95	125	631–635	366-368	499-501	378-380	499-502	376-378	125	95
95	124	626-630	364-365	495–498	375–377	495–498	373-375	124	95
94	123	621–625	361-363	491–494	373–374	491–494	371-372	123	94
93	122	615–620	359-360	487–490	370-372	487–490	368-370	122	93
92	121	610-614	356-358	484-486	367–369	484-486	365-367	121	92
91	120	605–609	354–355	480-483	365–366	480-483	362-364	120	91
90	119	600-604	351-353	476–479	362-364	476-479	359-361	119	90
88	118	595-599	348-350	472–475	359-361	472-475	356-358	118	88
87	117	590-594	346-347	469-471	357-358	469-471	353-355	117	87
86	116	585-589	343-345	465-468	354-356	465-468	350-352	116	86
84	115	580–584	341–342	461-464	351-353	461-464	347–349	115	84
82	114	574–579	338-340	457-460	349-350	457-460	344-346	114	82
81	113	569-573	336-337	454-456	346-348	454-456	341–343	113	81
79	112	564-568	333-335	450-453	343-345	450-453	338–340	112	79
77	111	559-563	331-332	446-449	340-342	446-449	335–337	111	77
75	110	554-558	328-330	442-445	338–339	442-445	332–334	110	75
73	109	549-553	326-327	439-441	335–337	438–441	329-331	109	73
70	108	544-548	323-325	435-438	332-334	435–437	326-328	108	70
68	107	538-543	321–322	431–434	330-331	431–434	323-325	107	68
66	106	533-537	318-320	427–430	327–329	427–430	320-322	106	66
63	105	528-532	316-317	424-426	324–326	423-426	317–319	105	63
61	104	523-527	313-315	420-423	322-323	420-422	314–316	104	61
58	103	518-522	311–312	416-419	319-321	416-419	312-313	103	58
55	102	513-517	308-310	412-415	316-318	412-415	309-311	102	55
	101	508-512	306-307	409-411	314–315	408-411	306-308	101	53

Table A.2. Sum of Standard Scores to Index Standard Score Conversions by Age (continued)

A.2	
AGES	
то 70 9–11	

CASL-2	ndex C	onfiden	ice Valu	es		
	GLAI	RLI	ELI	LSI	SI	SPI
90% confidence interval ±	2	4	3	4	3	3
95% confidence interval ±	2	5	4	4	4	3

				Ages 7–0	0 to 9–11				
				Sums of sta	ndard scores	6			
Percentile	Standard score	GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentile
50	100	503-507	303-305	405–408	311–313	405-407	303-305	100	50
47	99	497–502	301-302	401-404	308-310	401-404	300-302	99	47
45	98	492–496	298-300	398-400	306-307	397–400	297–299	98	45
42	97	487–491	296–297	394–397	303-305	393–396	294–296	97	42
39	96	482–486	293–295	390–393	300-302	389–392	291–293	96	39
37	95	477–481	291-292	386-389	298-299	386-388	288–290	95	37
34	94	472–476	288–290	383–385	295–297	382-385	285–287	94	34
32	93	467–471	286–287	379–382	292–294	378–381	282–284	93	32
30	92	461-466	283–285	375–378	290-291	374–377	279–281	92	30
27	91	456-460	281–282	371–374	287–289	371–373	276-278	91	27
25	90	451–455	278–280	368–370	284–286	367–370	273–275	90	25
23	89	446–450	276–277	364–367	281–283	363-366	270–272	89	23
21	88	441–445	273–275	360-363	279–280	359-362	267–269	88	21
19	87	436-440	271–272	356-359	276-278	356-358	264-266	87	19
18	86	431–435	268–270	353–355	273-275	352-355	261-263	86	18
16	85	425-430	266-267	349-352	271-272	348-351	258-260	85	16
14	84	420-424	263-265	345-348	268–270	344-347	256-257	84	14
13	83	415–419	260-262	341-344	265-267	340-343	253-255	83	13
12	82	410-414	258–259	338-340	263–264	337–339	250-252	82	12
10	81	405–409	255–257	334–337	260-262	333–336	247–249	81	10
9	80	400-404	253-254	330-333	257-259	329-332	244–246	80	9
8	79	395–399	250-252	326-329	255-256	325-328	241–243	79	8
7	78	390-394	248–249	323-325	252-254	322-324	238–240	78	7
6	77	384-389	245-247	319-322	249–251	318-321	235–237	77	6
5	76	379–383	243-244	315–318	247–248	314–317	232–234	76	5
5	75	374-378	240-242	311-314	244–246	310-313	229–231	75	5
4	74	369-373	238–239	308-310	241–243	307–309	226–228	74	4
4	73	364-368	235–237	304-307	239–240	303–306	223–225	73	4
3	72	359-363	233-234	300-303	236–238	299–302	220-222	72	3
30	71	354-358	230-232	296–299	233–235	295–298	217–219	71	3

Table A.2. Sum of Standard Scores to Index Standard Score Conversions by Age (continued)

Note: GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; SI = Syntactic Index; SPI = Supralinguistic Index

CASL-2	Index C	onfiden	ice Valu	es		
	GLAI	RLI	ELI	LSI	SI	SPI
90% confidence interval ±	2	4	3	4	3	3
95% confidence interval ±	2	5	4	4	4	3

A.2 Ages 7-0 TO 9-11

				Ages /-	ndard scores				
	Standard			Sums of sta	nuaru scores			Standard	
Percentile	score	GLAI	RLI	ELI	LSI	SI	SPI	score	Percentile
2	70	348-353	228–229	293–295	231-232	291–294	214-216	70	2
2	69	343–347	225–227	289–292	228–230	288–290	211–213	69	2
2	68	338-342	223-224	285-288	225-227	284–287	208–210	68	2
1	67	333–337	220-222	281–284	222-224	280-283	205–207	67	1
1	66	328-332	218–219	278–280	220-221	276–279	202–204	66	1
1	65	323–327	215–217	274–277	217–219	273–275	199–201	65	_1
1	64	318-322	213-214	270-273	214–216	269–272	197–198	64	G
1	63	313–317	210-212	266-269	212-213	265-268	194–196	63	
1	62	307-312	208–209	263–265	209–211	261–264	191–193	62	1
0.5	61	302-306	205–207	259–262	206–208	257-260	188–190	61	0.5
0.4	60	297–301	203–204	255–258	204–205	254-256	185–187	60	0.4
0.3	59	292–296	200–202	251–254	201-203	250-253	182–184	59	0.3
0.3	58	287–291	198–199	248–250	198-200	246-249	181	58	0.3
0.2	57	282–286	195–197	244-247	196-197	242-245		57	0.2
0.2	56	277–281	193–194	240-243	193–195	239–241	) -	56	0.2
0.1	55	271–276	190–192	236-239	190–192	235-238	_	55	0.1
0.1	54	266–270	188–189	233-235	188–189	231-234	-	54	0.1
0.1	53	261–265	185–187	229-232	185-187	227-230	_	53	0.1
0.1	52	256-260	183-184	225-228	182-184	224–226	_	52	0.1
0.1	51	251–255	180-182	221-224	180–181	220-223	_	51	0.1
<0.1	50	246-2 <u>5</u> 0	178–179	218-220	177–179	216–219	_	50	<0.1
<0.1	49	241-245	175–177	214-217	174–176	212-215	_	49	<0.1
<0.1	48	238-240	173–174	210-213	172–173	208–211	_	48	<0.1
<0.1	47	$\checkmark$	170–172	206–209	169–171	205–207	_	47	<0.1
<0.1	46	-	167–169	203–205	166–168	201–204	-	46	<0.1
<0.1	45		165–166	199–202	163–165	197–200	-	45	<0.1
<0.1	44	**	162–164	195–198	161–162	193–196	_	44	<0.1
<0.1	43		160–161	191–194	158–160	190–192	_	43	<0.1
<0.1	42	N-'	157–159	188–190	155–157	186–189	_	42	<0.1
<0.1	41	<b>N</b> -	155–156	184–187	153–154	182–185	_	41	<0.1
	40	_	127–154	168–183	130–152	162–181	_	40	<0.1

Table A.2. Sum of Standard Scores to Index Standard Score Conversions by Age (continued)

CASL-2	ndex C	onfiden	ice Valu	es		
	GLAI	RLI	ELI	LSI	SI	SPI
90% confidence interval ±	2	4	3	4	3	3
95% confidence interval ±	2	5	4	4	4	3

Test age	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	MC	INF	DM	PL
< Start age	0–14	0–7	0-7	0-9	0-6	0-5	0-5	0-7	0-6	0-4	0-3	0-3	0-2	0-5
3-0 to 3-2	15–16	-	-	10	-	6–7	6–7	8-9	-	-	-	4	-	6
3–3 to 3–5	17–18	-	-	11	-	8	8	10–11	-	-	-	5	-	7
3-6 to 3-8	19–20	-	-	12	-	-	9	12–13	-	-	-	-	-	-
3–9 to 3–11	21–23	-	-	13	-	9	10	14	-	-	-	6	-	-
4-0 to 4-2	24-25	_	_	14	_	10	11	15–16	_	-	-	7	-	8
4-3 to 4-5	26-27	-	-	15-16	-	11	12	17-18	-	_	_	8		-
4-6 to 4-8	28-29	-	-	17	-	12	13	19-20	-	-	-	9		9
4–9 to 4–11	30–31	-	-	18	-	-	14	21	-	-	-	10	-	10
	22	0 0	0 0	10	•••••	12	15	22.22	7.0			11	•••••	11
5-0 to 5-2	32	8-9	8-9	19	-	13	15	22-23	/-8	-	-	12	-	12 12
5-5 to $5-5$	35-34	10-11	12-13	20-21	_	14	10	24-20	9-11	Ē	N	12		12-13
	26.27	12 14	14	22	_	10	1/	20	15 10		-	14 15	5	15 10
5-9 to 5-11	36-37	13–14	14	23	-	-	18	27-28	15–16		-	14-15		15–16
6-0 to 6-2	38	15	15	24	-	16	19–20	29	17–18		-	16	-	17
6–3 to 6–5	39–40	16	16	25–26	-	17	21	30–31	19-20	-	7	17	-	18–19
6–6 to 6–8	41	17	17	27	-	18	22	32	21-22	-	-	18-19	-	20-21
6–9 to 6–11	42	18	18	28	-	19	23–24	33-34	23–24	-		20	-	22–23
7–0 to 7–2	43	19	19	29–30	-	-	25	35	25–26	5-6	4	21–22	-	24–25
7–3 to 7–5	44	-	20	31	-	20	26	36	27– <u>28</u>	7-8	5	23	-	26–27
7–6 to 7–8	45	20	-	32-33	-	21	27-28	37–38	29-30	9	-	24-25	-	28–29
7–9 to 7–11	46	21	21	34	-	22	29	39	31-32	10–11	6	26	-	30-31
9 0 to 9 5	47	 າາ	 າາ	25 26		22	20	10	22 24	12 12	 7	00 TC	•••••	
8-6 to 8-11	47	22	-	30-30	0	23	31_32	40	35-36	14-15	2	29-30	_	34-36
9-0 to 9-5	40	-	23	38-39	7-8	25	33	42	37-38	14 15	9	31	3	37-38
9-6 to 9-11	50	24	24	40-41	9	26	34	43	39-40	17-18	10	32-33	4-5	39-40
10-0 to 10-5	51	25	25	42	10	27	35-36	44	41-42	19-20	11	34-35	6	41-42
10-6 to 10-11	-	26	26	43-44	11	28	37	45	43-45	21-22	12	36-37	7–8	43-45
11-0 to 11-5	52	27	27	45-46	12-13	29-30	38-39	46	46-47	23	13-14	38-39	9	46-47
11–6 to 11–11	53	28-29	28–29	47	14–15	31	40	47	48–50	24–25	15	40–41	10–11	48–49
12-0 to 12-5	54	30	30	48-49	16–18	32	41	48	51-53	26–27	16	42-43	12–13	50-51
12-6 to 12-11	55	31–32	31-32	50–51	19–21	33–34	42-43	-	54-55	28	17–18	44–46	14	52-53
13-0 to 13-11	56	33-34	33-34	52-53	22-24	35	44	49	56-57	29-30	19	47–48	15–17	54-55
14-0 to <b>14-</b> 11	57	35-36	35–37	54-55	25–27	36-37	45–46	50	58-60	31	20-21	49-50	18–19	56-57
15-0 to 15-11	58	37–39	38-39	56-57	28–30	38	47	51	61–63	32-33	22	51-52	20-22	58
16-0 to 18-11	59	40-42	40-41	58-59	31-33	39-40	48-49	_	64-66	34-35	23-24	53-54	23-25	59
19-0 to 21-11	60	43-44	42-44	60	34-36	41-42	50-51	52	67-69	36	25-26	55-57	26-28	60-61
>21-11	61-71	45-62	45-69	61–71	37–54	43–50	52-66	53-56	70–91	37–51	27-62	58-65	29–50	62

Table A.3. Test-Age Equivalents of CASL-2 Test Raw Scores

Note. **RV** = Receptive Vocabulary; **ANT** = Antonyms; **SYN** = Synonyms; **EV** = Expressive Vocabulary; **IL** = Idiomatic Language; **SE** = Sentence Expression; **GM** = Grammatical Morphemes; **SC** = Sentence Comprehension; **GJ** = Grammaticality Judgment; **NL** = Nonliteral Language; **MC** = Meaning from Context; **INF** = Inference; **DM** = Double Meaning; **PL** = Pragmatic Language

						Third G	rade, Fal	I							
St Percentile	andard score	RV	ANT	SYN	EV	IL	SE	GM	sc	GJ	NL	мс	INF	DM	PL
>99.9	160	70–71	50-62	51–69	64–71	45-54	47–50	58–66	-	68–91	45-51	36-62	-	38-50	-
>99.9	159	69	-	-	-	-	-	-	-	67	-	35	-	37	-
>99.9	158	-	-	50	63	44	46	57	-	66	44	-	-	36	-
>99.9	157	-	49	-	-	43	-	-	-	-	43	34	-	-	-
>99.9	156	68	-	49	62	-	-	-	-	65	-	-	_	35	-
>99.9	155	-	48	-	-	42	45	56	-	–	42	33	-	_	-
>99.9	154	-	-	48	61	41	-	-	-	64	-		- )	34	-
>99.9	153	67	47	-	-	-	-	55	-	63	41	32	65	33	-
>99.9	152	-	-	47	60	40	44	-	-	-	-		-	-	
>99.9	151	66	-	-	-	-	-	54	-	62	40	31	64	32	-
>99.9	150	-	46	46	-	39	43	-	_	-		<u> </u>	63		)-
99.9	149	-	-	-	59	38	-	53	-	61	39	30	62	31	-
99.9	148	65	45	-	_	-	-	_	_	-	-	_			-
99.9	147	-	-	45	58	37	42	52	-	60	38	29	61	30	-
99.9	146	64	44	-	-	36	-	-		59	-		60	29	-
99.9	145	-	_	44	57	-	41	51 _	_	_	37	28	_	-	62
99.8	144	-	-	-	-	35	-		-	58		-	59	28	61
99.8	143	63	43	43	56	34	-	50	_	-	36	27	58	-	_
99.7	142	-	-	-	-	-	40		56	57		-	-	27	60
99.7	141	-	42	42	55	33		49	-	56	35	-	57	26	59
99.6	140	62	-	_		32	39	_			_			-	-
99.5	139	-	41	41	54	E		48	55	55	34	-	55	25	58
99	138	61	-	-	4	31	-	-	2.	_	33	25	_	_	57
99	137	_	-	40	53	30	38	47	54	54	-	-	54	24	_
99	136	-	40	-		-	-		-	-	32	24	53	23	56
99	135	60	_	39	52	29	37	46	53	53	_	_	_	-	_
99	134	_	39	0	-	28			-	52	31	23	52	22	55
99	133	59	-	38	51	-		45	52	-	-	-	51	-	54
98	132	-	38	)_	-	27	36	_	_	51	30	22	50	21	_
98	131	-	-	-	-		- 1	44	-	-	-	-	-	-	53
98	130	58	-	37	50	26			51	50	29	21	49	20	52
97	129		37	-		25	35	43	-	49	-	-	48	19	-
97	128		- /	36_	49	_	-	-	50	-	28	20	-	-	51
96	127	57	36		-	24	34	42	-	48	-	-	47	18	50
96	126	_	_	35	48	23	_	_	49	-	27	19	46	-	_
95	125	56	35	-	_	_	_	41	_	47	_	_	_	17	49
95		30		24	47	22	33	-	_	-+/	26	18	45	16	48
	124		— ·	.34	<u>4</u>									10	.0
94	124 123	X		-	-	21	-	40	48	46	-	-	44	-	-
94	124 123 122	- 55	34	34 - 33	- 46	21	- 32	40	48	46 45	- 25	- 17	44 43	- 15	- 47

Table A 4	Raw Score to	Standard Score	Conversions h	v Grade (	(continued)
TUDIC A.T.			0011/01/01/01/01	y araac i	continucuj

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

210	JS						0	0			Ta	able A.4	continue	ed on ne.	xt page
				C	ASL-2	Test Co	onfiden	ce Valu	es						
<u> </u>	)	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	MC	INF	DM	PL
	90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
•	95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

						Third G	rade, Fal								
Percentile	Standard score	RV	ANT	SYN	EV	IL	SE	GM	sc	GJ	NL	мс	INF	DM	PL
91	120	-	33	32	45	19	-	-	-	44	24	-	42	14	-
90	119	54	-	-	-	-	31	38	46	-	-	16	41	-	45
88	118	-	32	31	44	18	-	-	-	43	23	-	-	13	-
87	117	53	-	-	-	17	30	37	45	42	22	15	40	12	44
86	116	-	-	30	43	-	-	-	-	-	-	-	39	-	43
84	115	-	31	-	-	16	-	36	-	41	21	14	-	11	-
82	114	52	-	-	42	-	29	-	44	-	-	-	- 38	-	42
81	113	-	30	29	-	15	-	35	-	40	20	13	37	10	41
79	112	51	-	-	41	14	28	-	43	-	-	-	36	9	-
77	111	-	29	28	-	-	-	34	-	39	19	12	-	-	40
75	110	-	-	-	-	13	-	-	42	38	<b>~</b>	- 1	35	8	39
73	109	50	-	27	40	12	27	33	-	-	18	11	34	-	1-
70	108	-	28	-	-	-	-	-	41	37	- \	-	-	7	38
68	107	-	-	26	39	11	26	32	-	0	17	10	33	6	37
66	106	49	27	-	-	10	-	-	-	36	) -	-	32	-	-
63	105	-	-	25	38	-	-	-	40	_	16	9	31	5	36
61	104	48	26	-	-	9	25	31	-	35	-		)-	-	-
58	103	-	-	24	37	8	-	-	39	34	15	8	30	4	35
55	102	-	-	-	-	-	_ 4	30	)-`	-	-	2	29	-	34
53	101	47	25	23	36	7	24		38	33	14	-	-	3	-
50	100	-	-	-	-	-		29	-	32		7	28	-	33
47	99	46	24	-	35	6	23	-	37	-	13	-	-	-	32
45	98	-	-	22	-	-		28	- (	31	-	-	27	-	-
42	97	-	-	-	34	A	-	-	36	30	12	-	26	2	31
39	96	45	23	21	(	- 1	22	27	35	29	-	-	-	-	30
37	95	-	-	-	33	5	-	(-/	-	-	-	6	25	-	-
34	94	44	22	-	-)	-	-	26	34	28	11	-	-	-	29
32	93	-	-	20	32	-	21	-	33	27	-	-	24	-	-
30	92	43	21		- 1	-		-	-	26	10	-	-	-	28
27	91	-	-	-	31	4	Y.	25	32	25	-	-	23	-	27
25	90	42	_	19	_		20	-	31	-	9	-	-	-	-
23	89		20	-		- •	-	24	-	24	-	5	22	-	26
21	88	41	<u> </u>	18	30	3	-	-	30	23	-	-	-	-	25
19	87	-	19	-	-	-	19	23	29	22	8	-	21	-	-
18	86		-	_ (	29	-	-	-	-	21	-	-	-	-	24
16	85	40		17	-	-	-	-	28	-	7	-	20	-	-
14	84	- •	18	-	28	2	18	22	27	20	-	-	-	-	23
13	83	39	-	-	-	-	-	-	-	19	-	4	19	1	22
12	82	-	17	16	27	-	-	21	26	18	6	-	-	-	-
10	81	38	-	-	-	-	17	-	25	17	-	-	18	-	21

Table A.4. Raw Score to Standard Score Conversions by Grade (continued)

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

			С	ASL-2	Test Co	onfiden	ce Valu	es						
	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	MC	INF	DM	PL
90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

GRADE 3 FALL

A.4

9

						Third G	Grade, Fa	11							
Percentile	Standard score	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	мс	INF	DM	PL
9	80	-	_	15	26	1	-	20	_	-	5	-	-	-	20
8	79	37	16	-	-	-	-	-	24	16	-	-	17	-	-
7	78	-	-	-	25	-	16	19	23	15	4	-	16	-	19
6	77	-	15	14	-	-	-	-	-	14	-	3	-	-	-
5	76	36	-	-	24	0	-	-	22	-	-	-	15	-	18
5	75	-	-	13	-	-	15	18	21	13	3	-	-	_	17
4	74	35	14	-	23	-	-	-	-	12	-		14	-	-
4	73	-	-	-	-	-	-	17	20	11	2	-	-	-	16
3	72	34	13	12	22	-	14	-	19	10	-		13	-	15
3	71	-	-	-	-	-	-	16	-	-	-	2	-	-	
2	70	33	12	-	21		-	-		9		<u> </u>	12	0	14
2	69	-	-	11	-	-	13	-	17	8		-	-	74	-
2	68	-	-	-	20	-	-	15	-	7	0	-	11		13
1	67	32	11	10	-	-	-	-	16	6	-	-		-	12
1	66	-	-	-	-	-	12	14	15	-	-		10	-	-
1	65	31	10	_	19	-	_		_	5	-			_	11
1	64	-	-	9	-	-	-	13	14	4			9	-	10
1	63	30	-	-	18	-	11	-	_	3		K.	-	-	-
1	62	-	9	-	_	-		12	13	-		-	8	-	9
0.5	61	29	-	8	17	-			12	2		-	_	-	-
0.4	60	_	8				10			1	_		7		
0.3	59	_	-	7	16.	E	10	11	11	0	-	0	-	_	7
0.3	58	28	-	_	-		-	-	104	_	-	-	6	-	_
0.2	57	-	7	_	15		9	10		_	_	_	5	_	6
0.2	56	27	-	6.	A		_	C	9	_	-	-	_	-	5
01	55		6		14			0	Q						
0.1	54	26	-	5	14	_	8		0		_	_	-	_	_
0.1	53	20	5		13			-	7	_	_	_	З	_	-
0.1	52	25			-		Y	8	6	_	_	-	-	-	3
01	51	_	_	4	12		7	-	-	_	_	_	2	_	2
<01	E0			т				 7		•••••					
<0.1	10	24	4		11	-	-	/	C	-	-	-	-	-	1
<0.1	49	24	2		11	-	-	-	4	-	-	_	1	-	1
<0.1	40 47	23	5		10	_	0	0	2	_	_	_	0	_	-
<01	46	-	_	2	-	_	_	_	2	_	_	_	-	_	_
-0.1		-		~	-			-	~		-	-			
<0.1	45	22	2	-	9	-	5	5	-	-	-	-	-	-	-
<0.1	44		-	-	-	-	-	-	1	-	-	-	-	-	-
<0.1	43	21		1	-	-	_	4	0	-	_	-	-	-	-
<0.1	42	-		-	ŏ	-	4	-	-	-	-	-	-	-	-
<0.1	41	0.10	-	-	-	-	-	3	-	-	-	-	-	-	-
<0.1	40	-19	U	U	0-/	-	0-3	0-2	-	-	-	-	-	-	-

Table A.4. Raw Score to Standard Score Conversions by Grade (continued)

Note. RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

Q(0	MC = Meaning from Context; INF	= İnfere	nce; DM	= Double	e Meanin	g; <b>PL</b> = F	Pragmati	c Langua	age		Ta	able A.4	continue	ed on ne	xt page
				C	ASL-2	Test Co	onfiden	ce Valu	es						
<u> </u>		RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	МС	INF	DM	PL
	90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
•	95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

Percentile	Standard score	RV	ANT	SYN	EV	Ц	SF	GM	SC	GJ	NI	MC	INF	DM	PL
	160	71	52-62	53-69	66-71	46-54	49-50	60-66		68-91	47-51	39-62	_	39-50	_
>99.9	159	70	-	-	65	45	48	59	_	-	46	38	_	-	_
>99.9	158	-	51	52	-	44	-	-	_	67	-	-	_	38	-
>99.9	157	-	-	-	-	-	47	58	_	-	45	37	-	37	-
>99.9	156	69	50	51	64	43	-	-	-	66	_	-	-	-	-
>99.9	155	-	_	_			_	57	_	65	44	36		36	_
>99.9	154	_	49	50	63	42	46	-	_	-	43	-			-
>99.9	153	68	-	-	-	41	-	56	_	64	-	35	-	35	-
>99.9	152	-	-	49	62	-	45	-	-	-	42	-	_	34	-
>99.9	151	67	48	-	-	40	-	-	-	63	- 4	34	-	-	<b>P</b> .
>99.9	150	-		48	61	39		55	_	_	41		65	33	
99.9	149	-	47	-	-	-	44	-	-	62	-	33	64	0	-
99.9	148	66	_	-	60	38	_	54	-	61	40	_	63	-32	_
99.9	147	-	46	47	-	37	43	-	-		-	32	-	31	-
99.9	146	-	-	-	59	-	-	53	-	60	39	-	62	-	-
99.9	145	65	_	46	-	36	_	_			_	31	61	30	-
99.8	144	-	45	_	58	35	42	52		59	38		)_	-	-
99.8	143	64	-	45	-	-	-	-6		-		30	60	29	-
99.7	142	-	44	-	-	34	41 🖣	51	)-	58	37		59	28	62
99.7	141	-	-	44	57	-	-		-	-	-	29	-	-	61
99.6	140	63	43	-			<u>-</u> C	50	56	57	36	-	58	27	-
99.5	139	-	-	43	56	32	40	_	-	56	-	28	57	-	60
99	138	-	-	-	-	_	9	49	-	2.	35	-	-	26	59
99	137	62	42	42	55	31	-	-	55	55	-	27	56	25	-
99	136	-	-	-	-	30	39	48		-	34	-	55	-	58
99	135	61	41	41	54	_	-		54	54	-	26	54	24	-
99	134	_	_	- (	-1	29	38	47	_	_	33	_	_	23	57
99	133	-	-	40	53	28		}	53	53	-	25	53	-	56
98	132	60	40		-	-		46	-	52	32	24	52	22	-
98	131	-	-	39	52	27	37	-	-	-	31	-	-	-	55
98	130	-	39	_			-	45	52	51	_	23	51	21	_
97	129	59	-	38	51	26	36	_	-	_	30	_	50	20	54
97	128 🔺	_	38	-		25	-	44	51	50	-	22	-	-	53
96	127	58	-	37		-	-	-	-	-	29	-	49	19	-
96	126	-	-	_ (	50	24	35	43	50	49	-	21	48	-	52
95	125	-	37	36	-	23	-	-	-	-	28	-	-	18	51
95	124	57			49	_	34	42	_	48	_	20	47	17	_
94	123	-	36	35	-	22	-	-	49	47	27	-	46	-	50
93	122	-		_	48	21	-	41	-	-	-	19	-	16	-
92	121	56	35	-	-	-	33	-	48	46	26	-	45	-	49

#### Table A.4. Raw Score to Standard Score Conversions by Grade (continued)

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

			С	ASL-2	Test Co	onfiden	ce Valu	es						
	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	MC	INF	DM	PL
90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

standRNRNSNEVNRSNRSNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN <th< th=""></th<>
91     120     -     -     34     47     20     -     40     -     -     -     18     44     15     43       90     119     55     -     34     33     46     -     -     90     47     -     -     43     14       88     116     54     33     32     45     -     18     -     -     44     24     -     45     16       86     116     54     33     32     45     -     37     45     42     -     15     41     -     16     41     -     12       84     113     53     -     -     -     -     37     45     42     -     15     43       70     111     52     31     -     43     14     29     -     44     20     13     37     -     -     14       71     111     52     31     -     43     14     29     -     44     -     13     37     -     14     31     37     -       71     111     52     31     -     42     34     -     -     33     -     1
90       119       55       -       -       -       19       32       -       -       45       25       -       43       14         88       118       -       34       33       46       -       -       39       47       -       -       44       24       -       42       42       -       42       42       -       42       42       -       42       42       -       42       42       -       42       42       -       42       42       -       42       42       -       42       10       -       42       12       -       42       12       -       -       10       -       12       -       -       10       -       10       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       -       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       1
88       118       -       34       33       46       -       -       39       47       -       -       17       -       -       -       -       -       -       18       -       -       44       24       17       -       -       -       18       46       33       46       -       -       -       -       43       24       -       42       13       4       4       -       -       -       -       -       44       43       24       -       -       12       -       -       12       -       13       -       -       -       -       30       -       -       -       30       -       -       -       30       -       -       43       14       29       -       44       -       11       -       11       13       -       -       43       14       10       -       -       44       -       13       -       -       44       -       13       -       -       14       -       -       -       44       -       -       -       14       -       -       14       -       13       14
87       117       -       -       -       1       13       44       24       -       42       13         86       116       54       33       32       45       -       31       38       46       43       -       16       41       -       12       -       -       -       23       14       -       -       -       22       -       15       40       11         84       113       53       -       -       -       -       30       -       -       -       -       -       -       30       -       -       -       30       -       -       -       30       -       41       -       22       -       30       -       -       -       33       39       -       -       -       33       39       -       -       -       75       100       -       20       -       41       -       -       -       43       39       -       -       -       43       39       -       -       -       43       39       -       -       -       43       39       -       -       19       13 <t< td=""></t<>
86       116       54       33       32       45       -       31       38       46       43       -       16       41       -         84       115       -       -       -       -       7       -       -       23       -       -       12       42       16       41       -       12       -       12       43       14       16       -       37       45       42       -       43       14       16       -       30       -       -       22       -       43       14       29       -       -       44       -       21       -       38       7       7       11       52       31       -       43       14       29       -       43       39       -       -       13       37       9       7       7       11       52       31       -       43       39       -       -       8       7       8       7       8       7       7       8       7       8       7       7       7       7       13       1       7       33       1       1       10       13       33       1       1 <t< td=""></t<>
84       115       -       -       -       17       -       -       -       23       -       -       12       42         82       114       -       32       31       44       16       -       37       45       42       -       15       40       11         81       113       53       -       -       -       30       -       -       22       -       45       10       11         79       112       -       -       30       -       15       -       36       -       44       -       21       -       38       -         75       110       -       -       28       11       -       43       39       1       -       -       -       43       39       1       -       86       107       -       29       -       41       -       -       -       42       38       -       -       -       56       10       -       -       42       38       -       -       56       10       -       -       40       10       -       -       18       10       13       10       10<
82       114       -       32       31       44       16       -       37       45       42       -       15       40       11         81       113       53       -       -       -       -       -       -       -       22       -       49       -       49       -       49       -       49       -       49       -       49       -       49       -       -       49       -       -       49       -       -       49       -       -       -       30       -       -       42       13       -       -       43       39       -       -       -       -       43       39       -       -       -       -       43       39       -       -       -       -       43       39       -       -       -       -       43       39       -       -       -       -       43       39       -       -       -       -       43       49       -       -       -       43       45       -       -       43       45       -       -       43       45       -       -       -       -       -
81       113       53       -       -       -       30       -       -       36       -       41       -       10       -         79       112       -       -       30       -       15       -       36       -       41       -       14       -       10       -         77       111       52       31       -       43       13       -       -       43       39       -       -       38       -         75       110       -       29       -       12       28       34       -       -       19       12       78       -       -       68       107       -       29       -       11       27       33       -       -       42       39       -       -       65       7       -       66       106       -       77       111       27       33       10       -       18       10       33       5       5         63       105       50       -       -       30       10       -       13       40       -       16       9       -       43       5       5       5
79       112       -       -       30       -       15       -       36       -       41       -       10       -       10       -         77       111       52       31       -       43       14       29       -       444       -       21       -       38       -         75       110       -       -       29       -       12       28       34       -       2       19       12       35       -       40       20       13       37       5       7         70       108       51       -       28       -       12       28       34       -       -       19       12       35       7       6         66       106       -       -       27       -       11       27       33       -       -       18       1       64       -       6       3       5       7       6       10       33       5       7       6       10       10       10       33       5       7       10       10       10       33       5       7       10       10       10       10       10 <td< td=""></td<>
77       111       52       31       -       43       14       29       -       44       -       21       -       38       -         75       110       -       -       29       -       -       35       -       40       20       13       37       9       4         73       109       -       30       -       42       13       -       -       43       39       -       -       63       37       9       4       -       -       42       38       -       19       12       36       7       4       -       -       42       33       -       -       18       1       24       -       -       63       105       50       -       -       40       10       -       -       37       -       -       -       66       16       10       33       5       32       -       -       66       10       10       33       5       32       -       -       36       10       33       14       24       -       7       -       31       40       -       10       33       33       14       30
75       110       -       29       -       -       35       -       40       20       13       37       9       47         73       109       -       30       -       42       13       -       -       43       99       -       -       -       68         70       108       51       -       28       -       12       28       34       -       -       19       12       35       -       -       66       106       -       -       27       11       27       33       -       -       10       33       5       5         66       106       -       -       27       40       10       -       -       -       37       -       -       66       33       5       5       5       10       33       5       5       5       5       10       -       7       39       9       26       -       -       34       15       8       30       3       3       -       5       5       10       -       7       -       24       -       7       30       12       -       31       13
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70       108       51       -       28       -       12       28       34       -       -       19       12       35       -       -         68       107       -       29       -       41       -       -       -       42       38       -       -       55       7       46         66       106       -       -       40       10       -       -       -       37       -       -       63       10       33       5       -       63       10       -       28       61       -       -       33       -       -       18       10       33       5       -       -       53       101       -       28       6       -       -       -       31       40       -       46       9       -       4       -       33       10       -       31       -       -       31       -       -       31       -       -       33       14       -       29       -       -       33       14       -       29       -       -       -       -       -       -       -       -       -       -       -
68 $107$ $ 29$ $ 41$ $  42$ $38$ $  57$ $7$ $46$ $66$ $106$ $  27$ $ 11$ $27$ $33$ $  18$ $1$ $p4$ $ 63$ $105$ $50$ $  40$ $10$ $  37$ $  66$ $33$ $61$ $104$ $ 28$ $26$ $  37$ $  37$ $  37$ $  37$ $  36$ $  31$ $  31$ $  31$ $                           -$ <t< td=""></t<>
66 $106$ $  27$ $ 11$ $27$ $33$ $  18$ $1$ $34$ $ 63$ $105$ $50$ $  40$ $10$ $  37$ $   66$ $33$ $55$ $61$ $104$ $ 28$ $26$ $  36$ $41$ $ 10$ $33$ $5$ $35$ $58$ $103$ $49$ $  39$ $9$ $26$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $  36$ $           -$
63 $105$ $50$ $  40$ $10$ $  37$ $     37$ $                                                                                         -$
61       104       -       28       26       -       -       -       32       41       -       17       10       33       5       3         58       103       49       -       -       39       9       26       -       -       36       -       32       -       32       -         55       102       -       27       25       -       -       -       31       40       -       16       9       -       4       4         53       101       -       -       38       8       25       -       -       45       -       -       31       40       -       16       9       -       4       -         50       100       48       -       24       -       7       -       30       -       -       -       31       13       14       -       10       -       -       -       -       -       24       -       -       28       33       14       -       10       -       -       -       -       -       -       -       -       -       -       -       -       -       -
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30 $92$ $ 23$ $21$ $34$ $ 22$ $ 34$ $28$ $11$ $ 26$ $2$ $27$ $91$ $44$ $          66$ $25$ $ 32$ $25$ $90$ $ 22$ $20$ $33$ $  26$ $33$ $27$ $     23$ $89$ $  22$ $20$ $33$ $  26$ $33$ $27$ $     21$ $88$ $43$ $  4$ $21$ $ 32$ $26$ $10$ $ 24$ $  19$ $87$ $ 21$ $19$ $   25$ $ 25$ $      18$ $86$ $42$ $  31$ $ 20$ $24$ $30$ $24$ $ 5$ $   16$ $85$ $ 20$ $  33$ $   23$ $29$ $22$ $    13$ $83$ $ 19$ $   17$ $20$ $                  -$
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#### Table A.4. Raw Score to Standard Score Conversions by Grade (continued)

Note: RV = Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

210	JS										Ta	ble A.4	continue	ed on ne	xt page
				C	ASL-2	Test Co	onfiden	ce Valu	es						
<u> </u>		RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	МС	INF	DM	PL
	90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
*	95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

					Т	hird Gr	ade, Spri	ng							
Percentile	Standard score	RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	МС	INF	DM	PL
9	80	-	18	-	28	-	18	-	-	19	-	4	19	1	23
8	79	39	-	16	-	-	-	21	26	-	5	-	-	-	22
7	78	-	17	-	27	1	-	-	25	18	-	-	18	-	-
6	77	38	-	15	-	-	17	20	-	17	4	-	-	-	21
5	76	-	-	-	26	-	-	-	24	16	-	-	17	-	20
5	75	37	16	-	-	0	16	19	23	-	3	3	-	_	-
4	74	-	-	14	25	-	-	-	-	15	-	-	16	-	19
4	73	36	15	-	-	-	-	18	22	14	-	-	15	_	18
3	72	-	-	13	24	-	15	-	-	13	2	-	-	-	-
3	71	-	14	-	-	-	-	-	21	-	- 🔦		14	-	17
2	70	35	-	-	-	-	-	17	20	12	1	2		-	
2	69	-	-	12	23	-	14	-	-	11	-	<b>_</b>	13	0	16
2	68	34	13	-	-	-	-	16	19	10	0	-	-		15
1	67	-	-	11	22	-	-	-	18		-	-	12	Ð	-
1	66	33	12	-	-	-	13	15	-	9	) <u>-</u>	-	(-)	-	14
1	65	-	-	-	21	-	-	-	17	8	-	1	11	-	13
1	64	-	-	10	-	-	-	14	16	7	-		10	-	-
1	63	32	11	-	20	-	12	-		· -	-	- 1	<b>-</b>	-	12
1	62	-	-	9	-	-	_ 4		15	6	-	-	[•] 9	-	11
0.5	61	31	10	-	19	-	-	13	14	5		- `	-	-	-
0.4	60	-	-	-	-	-	11	<b>_</b>	-	4	-	0	8	-	10
0.3	59	30	9	8	18	•	Ca	12	13	-	<b>-</b>	-	-	-	9
0.3	58	-	-	-	-	-		-	- (	3	<u> </u>	-	7	-	-
0.2	57	29	-	7	17	R	10	11	12	2	-	-	-	-	8
0.2	56	-	8	-	-	-	• _	-	11	1	-	-	6	-	-
0.1	55	-	-	-	-16	-	-	10	-	-	-	-	5	-	7
0.1	54	28	7	6	-)		9		10	0	-	-	-	-	6
0.1	53	-	-	F	15	-	-		9	-	-	-	4	-	-
0.1	52	27	-	5	-			9	-	-	-	-	-	-	5
0.1	51	-	6	-	14		8	-	8	-	-	-	3	-	4
<0.1	50	26		-	-		-	8	7	-	-	-	-	-	-
<0.1	49		5	4			-	-	-	-	-	-	2	-	3
<0.1	48	-	<b>-</b>	-	13	-	7	7	6	-	-	-	-	-	2
<0.1	47	25	4	3	-	-	-	-	-	-	-	-	1	-	-
<0.1	46		-	- 4	12	-	-	6	5	-	-	-	0	-	1
<0.1	45	24		-	-	-	6	-	4	-	-	-	-	-	0
<0.1	44	- 🔶	3	2	11	-	-	5	-	-	-	-	-	-	-
<0.1	43	23		-	-	-	5	-	3	-	-	-	-	-	-
<0.1	42	-	2	1	10	-	-	-	2	-	-	-	-	-	-
<0.1	41	22	-	-	-	-	-	4	-	-	-	-	-	-	-
<0.1	40	0-21	0-1	0	0-9	-	0-4	0-3	0-1	-	-	-	-	-	-

Table A.4. Raw Score to Standard Score Conversions by Grade (continued)

Note: RV = Receptive Vocabulary: ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; IL = Idiomatic Language; SE = Sentence Expression; GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language; MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language

				C	ASL-2	Test Co	onfiden	ce Valu	es						
$\mathbf{Q}$		RV	ANT	SYN	EV	IL	SE	GM	SC	GJ	NL	МС	INF	DM	PL
	90% confidence interval ±	6	5	6	6	5	7	7	6	2	3	4	3	4	3
	95% confidence interval ±	7	6	7	7	6	9	8	8	3	3	4	3	5	3

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F				Se	cond Throug	gh Fourth Gra	de			
F					Sums of sta	ndard scores	;			
	Percentile	Standard score	GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentile
	>99.9	160	705–779	425-466	609–638	466-480	573-607	435–478	160	>99.9
	>99.9	159	701–704	423-424	605-608	463-465	571–572	433–434	159	>99.9
	>99.9	158	698–700	421-422	602-604	460-462	568-570	430-432	158	>99.9
	>99.9	157	694–697	419–420	598-601	458–459	565-567	428-429	157	>99.9
	>99.9	156	691–693	417–418	595-597	455–457	562-564	426–427	156	>99.9
	>99.9	155	688–690	415–416	591–594	452–454	559–561	424–425	155	>99.9
	>99.9	154	684–687	413–414	588-590	450-451	556-558	421-423	154	>99.9
	>99.9	153	681–683	411-412	584–587	447–449	553-555	419-420	153	>99.9
	>99.9	152	677–680	409-410	581-583	445-446	550-552	417-418	152	>99.9
	>99.9	151	674–676	407–408	577–580	442-444	547-549	415–416	151	>99.9
•••••	>99.9	150	671–673	405–406	573–576	439-441	544-546	412-414	150	>99.9
	99.9	149	667–670	403-404	570-572	437–438	541-543	410-411	149	99.9
	99.9	148	664-666	401-402	566-569	434-436	538-540	408-409	148	99.9
	99.9	147	660-663	399-400	563-565	431-433	535-537	406-407	147	99.9
	99.9	146	657–659	397–398	559-562	429-430	532-534	403–405	146	99.9
••••	99.9	145	654–656	395–396	556-558	426-428	529-531	401–402	145	99.9
	99.8	144	650-653	393-394	552-555	423-425	526-528	399–400	144	99.8
	99.8	143	647–649	391–392	549-551	421-422	524-525	397–398	143	99.8
	99.7	142	643-646	389-390	545-548	418-420	521–523	394–396	142	99.7
	99.7	141	640-642	387-388	542-544	415-417	518-520	392-393	141	99.7
•••••	99.6	140	637–639	385-386	538-541	413-414	515–517	390–391	140	99.6
	99.5	139	633-636	383-384	534-537	410-412	512-514	388-389	139	99.5
	99	138	630-632	381-382	531-533	407–409	509-511	385-387	138	99
	99	137	626-629	379–380	527-530	405-406	506-508	383-384	137	99
	99	136	623–625	377-378	524-526	402-404	503-505	381–382	136	99
•••••	99	135	619–622	375–376	520-523	399–401	500-502	379–380	135	99
	99 🗙	134	616-618	373-374	517–519	397–398	497–499	376–378	134	99
	99	133	613-615	371–372	513-516	394–396	494–496	374–375	133	99
	98	132	609–612	369-370	510-512	391–393	491–493	372-373	132	98
	00	131	606-608	367–368	506-509	389-390	488-490	370-371	131	98

	Table A.5.	Sum of Standard	Scores to Index	Standard Score	Conversions by (	Grade (continued)
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CASL-2 Index Confidence Values													
GLAI RLI ELI LSI SI S													
90% confidence interval ±	2	4	3	4	3	3							
95% confidence interval ±	2	5	4	4	4	3							

				Sums of sta	ndard scores	5		_	
Percentile	Standard score	GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentile
98	130	602-605	365-366	503-505	386-388	485–487	367–369	130	98
97	129	599-601	363-364	499-502	383-385	482-484	365-366	129	97
97	128	596-598	361-362	495–498	381–382	479–481	363-364	128	97
96	127	592-595	359-360	492–494	378–380	476–478	361–362	127	96
96	126	589–591	357–358	488–491	375–377	474–475	358-360	126	96
95	125	585-588	355–356	485–487	373–374	471–473	356–357	125	95
95	124	582-584	353-354	481-484	370-372	468-470	354–355	124	95
94	123	579–581	351–352	478–480	367–369	465-467	352-353	123	94
93	122	575–578	349-350	474–477	365-366	462-464	349–351	122	93
92	121	572–574	347–348	471–473	362–364	459–461	347–348	121	92
91	120	568-571	345-346	467–470	359-361	456–458	345-346	120	91
90	119	565-567	343-344	464–466	357–358	453-455	343-344	119	90
88	118	562-564	341–342	460-463	354-356	450-452	341-342	118	88
87	117	558-561	339–340	456–459	351-353	447–449	338-340	117	87
86	116	555–557	337–338	453–455	349-350	444-446	336-337	116	86
84	115	551-554	335-336	449-452	346-348	441-443	334-335	115	84
82	114	548-550	333-334	446-448	343–345	438-440	332-333	114	82
81	113	545-547	331–332	442-445	341-342	435-437	329–331	113	81
79	112	541–544	329–330	439-441	338-340	432-434	327–328	112	79
77	111	538–540	327–328	435-438	336–337	429–431	325–326	111	77
75	110	534–537	325-326	432-434	333-335	427–428	323-324	110	75
73	109	531-533	323-324	428-431	330-332	424-426	320-322	109	73
70	108	528-530	321–322	425-427	328-329	421–423	318–319	108	70
68	107	524-527	319-320	421-424	325-327	418–420	316-317	107	68
66	106	521–523	317-318	417–420	322–324	415–417	314–315	106	66
63	105	517–520	315-316	414-416	320-321	412-414	311-313	105	63
61	104	514–516	313–314	410-413	317–319	409–411	309-310	104	61
58	103	511–513	311–312	407–409	314–316	406-408	307–308	103	58
55	102	507-510	309-310	403-406	312-313	403–405	305-306	102	55
53	101	504-506	307–308	400-402	309–311	400-402	302-304	101	53

Table A.5. Sum of Standard Scores to Index Standard Score Conversions by Grade (continued)

.te. GLAI = ( SI = Syntactic ) Note: GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; SI = Syntactic Index; SPI = Supralinguistic Index

CASL-2 Index Confidence Values													
	GLAI	RLI	ELI	LSI	SI	SPI							
90% confidence interval ±	2	4	3	4	3	3							
95% confidence interval ±	2	5	4	4	4	3							

A.5

			36						
Percentile	Standard score	GLAI	RLI	ELI	LSI	SI	SPI	Standard score	Percentil
50	100	500-503	305-306	396-399	306-308	397–399	300-301	100	50
47	99	497–499	303-304	393-395	304-305	394-396	298–299	99	47
45	98	494-496	301-302	389-392	301–303	391–393	296–297	98	45
42	97	490-493	299–300	385-388	298-300	388-390	293–295	97	42
39	96	487–489	297–298	382-384	296–297	385–387	291–292	96	39
37	95	483–486	295–296	378–381	293–295	382–384	289-290	95	37
34	94	480-482	293–294	375–377	290-292	379–381	287-288	94	34
32	93	477–479	291–292	371–374	288–289	377–378	284-286	93	32
30	92	473–476	289–290	368–370	285-287	374–376	282-283	92	30
27	91	470-472	287–288	364–367	282–284	371-373	280–281	91	27
25	90	466-469	285–286	361–363	280–281	368-370	278-279	90	25
23	89	463-465	283–284	357–360	277–279	365-367	275-277	89	23
21	88	460-462	281–282	354-356	274-276	362-364	273-274	88	21
19	87	456-459	279–280	350-353	272-273	359-361	271-272	87	19
18	86	453–455	277–278	346-349	269–271	356 <b>-35</b> 8	269–270	86	18
16	85	449–452	275–276	343-345	266–268	353-355	266–268	85	16
14	84	446-448	273–274	339-342	264-265	350-352	264–265	84	14
13	83	443–445	271–272	336-338	261-263	347-349	262-263	83	13
12	82	439–442	269-270	332-335	258-260	344–346	260-261	82	12
10	81	436-438	267-268	329-331	256-257	341–343	257–259	81	10
9	80	432-435	265-266	325-328	253–255	338–340	255–256	80	9
8	79	429-431	263-264	322-324	250-252	335–337	253-254	79	8
7	78	425-428	261-262	318-321	248-249	332–334	251-252	78	7
6	77	422-424	259-260	315-317	245-247	330-331	248-250	77	6
5	76	419–421	257-258	311-314	242-244	327–329	246-247	76	5
5	75	415-418	255-256	307–310	240-241	324–326	244–245	75	5
4	74	412-414	253-254	304-306	237–239	321-323	242-243	74	4
4	73	408-411	251-252	300-303	234–236	318-320	239–241	73	4
3	72	405-407	249–250	297–299	232-233	315–317	237–238	72	3
3	71	402-404	247–248	293–296	229–231	312-314	235–236	71	3

Table A.5. Sum of Standard Scores to Index Standard Score Conversions by Grade (continued)

CASL-2 Index Confidence Values													
GLAI RLI ELI LSI SI S													
90% confidence interval ±	2	4	3	4	3	3							
95% confidence interval ±	2	5	4	4	4	3							

	Standard					-		Standard	
Percentile	score	GLAI	RLI	ELI	LSI	SI	SPI	score	Percentile
2	70	398-401	245-246	290–292	227–228	309–311	233–234	70	2
2	69	395–397	243-244	286-289	224–226	306-308	230-232	69	2
2	68	391–394	241–242	283–285	221–223	303–305	228–229	68	2
1	67	388-390	239–240	279–282	219–220	300-302	226-227	67	1
1	66	385–387	237–238	276–278	216–218	297–299	224–225	66	1
1	65	381–384	235-236	272–275	213-215	294–296	221–223	65	1
1	64	378–380	233–234	268–271	211–212	291–293	219–220	64	1
1	63	374–377	231–232	265-267	208-210	288–290	217-218	63	
1	62	371–373	229–230	261–264	205-207	285-287	215–216	62	1
0.5	61	368–370	227–228	258–260	203–204	282–284	212-214	61	0.5
0.4	60	364–367	225-226	254-257	200-202	280–281	210-211	60	0.4
0.3	59	361–363	223-224	251–253	197–199	277–279	208–209	59	0.3
0.3	58	357–360	221–222	247–250	195–196	274-276	206–207	58	0.3
0.2	57	354-356	219–220	244-246	192–194	271-273	204-205	57	0.2
0.2	56	351–353	217–218	240–243	189–191	268–270	201–203	56	0.2
0.1	55	347–350	215–216	236–239	187–188	265-267	199–200	55	0.1
0.1	54	344-346	213–214	233-235	184–186	262-264	197–198	54	0.1
0.1	53	340-343	211-212	229–232	181–183	259-261	195–196	53	0.1
0.1	52	337–339	209–210	226-228	179–180	256-258	192–194	52	0.1
0.1	51	334–336	207–208	222-225	176–178	253–255	190–191	51	0.1
<0.1	50	330-333	205-206	219-221	173-175	250-252	188–189	50	<0.1
<0.1	49	327–329	203–204	215–218	171–172	247–249	186–187	49	<0.1
<0.1	48	323-326	201-202	212-214	168–170	244-246	183–185	48	<0.1
<0.1	47	320-322	199–200	208–211	165–167	241–243	181–182	47	<0.1
<0.1	46	317–319	196–198	205–207	163–164	238–240	179–180	46	<0.1
<0.1	45	313-316	194-195	201-204	160–162	235–237	177–178	45	<0.1
<0.1	44	310-312	192–193	197–200	157–159	233–234	174–176	44	<0.1
<0.1	43	306-309	190–191	194–196	155–156	230–232	172–173	43	<0.1
<0.1	42	303-305	188–189	190–193	152–154	227–229	170–171	42	<0.1
<0.1	41	300-302	186–187	187–189	149–151	224–226	168–169	41	<0.1
<0.1	40	226–299	120–185	164–186	120–148	160-223	164–167	40	<0.1
<i>Note</i> . <b>GLAI</b> = G SI = Syntactic	eneral Langua Index <b>; SPI</b> = Si	ge Ability Index Ipralinguistic Ir	r; <b>RLI</b> = Recepti ndex	ive Language Ir	ndex; <b>ELI</b> = Exp	ressive Langua	ge Index; <b>LSI</b> =	Lexical/Sema	ntic Index;
•									

Table A.5. Sum of Standard Scores to Index Standard Score Conversions by Grade (continued)

CASL-2 Index Confidence Values													
	GLAI	RLI	ELI	LSI	SI	SPI							
90% confidence interval ±	2	4	3	4	3	3							
95% confidence interval ±	2	5	4	4	4	3							

Table A.8. Critical Values for CASL-2 Index Standard Score Comparisons Across All Ages (Ages 3–21)CASL-2 indexGLAIRLILSISISPIGeneral Language Ability Index (GLAI)---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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-05

5

Supralinguistic Index (SPI)

Note. Numbers are reported in standard score points and are based on a significance level of .05.

All numbers were calculated using the mean reliability SEM for each index, where  $SE_{diff} = \sqrt{(SEM_1)^2 + (SEM_2)^2}$  and the  $SE_{diff}$  is multiplied by 1.96 for p < .05.



، میں ، ، ب The Comprehensive Assessment of Spoken Language, Second Edition (CASL-2) measures oral language in children and young adults across four structural linguistic categories: Lexical/Semantic, Syntactic, Supralinguistic, and Pragmatic. Based on the author's Integrative Language Theory, the CASL-2 offers the flexibility of 14 standalone tests in one comprehensive yet specific battery. Preserving the strengths of the original and highly regarded test, the second edition introduces new and enhanced features to increase validity, functionality, and ease of use. The CASL-2 can be used by speech–language pathologists and other professionals in many settings, including schools, clinics, hospitals, private practices, and intervention programs. It can help clinicians answer a variety of referral questions and create goals for therapy and individual education plans.

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