unlocking potential


# 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 anindividual'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).

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.

Table 1.1. Overview of the CASL-2 Tests

| 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 oratexpression 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 |  | 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 |  | 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 | upralinguistic |  | Ability to deduce the meaning of words from their oral linguistic context |
| Inference | to 21 | Supralinguistic | $3$ | Use of previously acquired world knowledge to derive meaning from inferences in spoken language |
| Double Meaning | to 21 | Supralinguistic |  | Understanding of words, phrases, and sentences that have more than one meaning |
| Pragmatic <br> Language | $3 \text { to } 21$ | Pragmatic | 3 | Knowledge of pragmatic language rules and their appropriate application |

Table 1.2. Categories and Descriptions of Linguistic Structures Measured by the CASL-2

| Linguistic structure category | Description of linguistic structures |
| :---: | :---: |
| Lexical/Semantic | - Knowledge and use of words and word combinations <br> - Vocabulary: nouns, verbs, modifiers, idioms, prefixes, and suffixes |
| Syntactic | - Knowledge and use of grammar <br> - Grammatical morphemes: function words (e.g., pronouns, prepositions, conjunctions, auxiliaries, determiners) and inflections (e.g., possessives, plurals, verb tense, noun-verb agreement) <br> - 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 <br> - Nonliteral language: double meaning, inference, verbal reasoning, figurative language, indirect requests, and humor |
| Pragmatic | - Knowledge of language that is appropriate in different situationalcontexts 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. |  |

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 containsall Supralinguistic tests and the Pragmatic Language test. Each Test Easel is a self-standing stimulus book that contains instructions, examples, pictures, items, prompts, scoring ceriteria, sample correct and incorrect answers, and information about the skills measured by eachitem. 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 ${ }^{\text {r" }}$ 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 testresults 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.

## CAS 2 Improvements

The CASL-2 serves the same purpose as the original CASL (Carrow-Woolfolk, 1999): to provide anin-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 diserder, intellectual disability, learning disability, or develop mental 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 displayैed in Figure 1.1.


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 ûsed in isolation for diagnosis or treatment planning. Instead, these results should be used in concert with other data (e.g., other assessment results, parentand teacher interviews, review of available records, direct observation).


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 CÂSL-2 tests and comprehensive item-level scoring guidelines are included in the Test Easels and Record Form for use during testadministration.

## Preparingto 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. Someadvanced items include words that may be unfamiliar to you; pronunciation guides for such words are included in the Record Form and the TestEasels. 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 StartItems by age group. Additionally, the Test Easels îclude all examples, pictures, items, prompts, and information about the skillsmeasured 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 toadminister 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


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 moretests, 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.

Figure 2.1. Chronological Age Calculâtion

## 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 eâch 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 missed your answer. Say it again."

Because this is a test of oral language (notreading 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 severalitems 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 $\mathbf{P}$ 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 cansimply write the corresponding letter in the blank in the Record Form. For someCASL-2 tests, frequently given correct responses are listed in the Record Form. For these tests, check the box in the Becord 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 Englishor 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 sameitem 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, syn̂tactic 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 .)

## 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.

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 Easel that corresponds to the examinee's response, or write the response in the space provided. Write NR for no response. Check the box
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.

## 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 ofo.
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 additionalitems 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.


Figure 2.3. The CASL-2.Record Form: Calculating the Raw Score

## Completing the Scoring Pages of the Record Form

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 standarrd 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 willenter 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 sameprocedure.
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 confidenceimtervals. 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 CASL-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 you 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 forfurther 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
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.

## 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
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 (aslisted in Table A.15).

## Standardization and Validation Data Collection

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. Censûs 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 yariance, 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 12 th 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.

Table 4.2. Demographic Characteristics of the CASL-2 Standardization Sample

| Characteristic | n | \% of sample | U.S. Census \% ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: |
| Gender |  |  |  |
| Male | 1,164 | 48.6 | 49.2 |
| Female | 1,230 | 51.4 | 50.8 |

Race/Ethnicity ${ }^{\text {b }}$

| Asian | 68 | 2.8 | 4.6 |
| :---: | :---: | :---: | :---: |
| Black/African American | 344 | 14.4 | 14.2 |
| Hispanic Origin | 527 | 22.0 |  |
| Native Hawaiian/Pacific Islander | 8 | 0.3 |  |
| American Indian/Alaska Native | 9 | 0.4 |  |
| White | 1,357 | 56.7 | 53.8 |
| Other | 81 | 3.4 | 3.5 |
| Parents' educational level |  |  |  |
| No high school diploma | 226 |  |  |
| High school graduate | 706 |  |  |
| Some college | 582 | 4.3 |  |
| Bachelor's degree or higher | 880 | 36.8 |  |
| U.S. geographic region |  |  |  |
| Northeast |  |  | 17.9 |
| South |  |  | 38.1 |
| Midwest |  |  | 22.3 |
| West |  |  | 21.8 |

Note. Total $N=2,394$. Due to rounding, total percentages may notequal $100.0 \%$.
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.
${ }^{\text {b }}$ Individuals 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.

Table 4.3. Age
Breakdown of the
CASL-2 Age-Based
Normative Sample

| Age | $n$ |
| :---: | :---: |
| 3 | 316 |
| 4 | 348 |
| 5 | 230 |
| 6 | 218 |
| 7 | 237 |
| 8 | 133 |
| 9 | 125 |
| 10 | 132 |
| 11 | 108 |
| 12 | 100 |
| 13 | 55 |
| 14 | 53 |
| 15 | 58 |
| 16 | 45 |
| 17 | 52 |
| 18 | 47 |
| 19 | 51 |
| 20 | 52 |
| 21 | 34 |

Note. $N=2,394$.

Table 4.4. Grade Breakdown of the CASL-2 Grade-Based Normative Sample



Q


Note. $N=1,538$.

Table 4.5. Demographic Characteristics of the CASL-2 Clinical Sample

|  | Characteristic | $\boldsymbol{n}$ |
| :--- | :---: | :---: |
| Gender |  | \% of <br> sample |
| Male | 165 | 60.9 |
| Female | 106 | 39.1 |

Age in years
3-4
5-6
7-9
10-12
13-21
Race/Ethnicity ${ }^{\text {a }}$
Asian


Black/African American
Hispanic Origin
Native Hawaiian/Pacific Islander
American Indian/AlaskaNative


$$
0.7
$$

White
Other
Other
Parents' educational level

| No high school diploma | 42 | 15.5 |
| :--- | ---: | :---: |
| High school graduate | 123 | 45.4 |
| Some college | 48 | 17.7 |
| Bachelor's degree or higher | 58 | 21.4 |

Note. $N=271$.
a Individuals 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 $(n=2)$ are included in the Other category.

## 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 responseswere 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 bials 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 ofitem responses from each participant. However, such rules would be impractical in a clinicalsetting, 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 seores, normalized raw score distributions were reconstituted from percentile ranks in the original raw score distributions (Anastasi \& Urbina, 1997). The normalized distributionswere 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 randomfluctuations 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 expectationsthat 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 mostrepresentative 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: GeneralLanguage 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.


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

| Ages 8-0 to 8-5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | SE | GM | SC | GJ | NL | MC | 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 | - | - | - | - |
| >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 |  | 30 | - |  |
| >99.9 | 151 | - | 45 | 45 | - | - | 56 | - | - |  |  |  |  |
| >99.9 | 150 | - | - | - | 58 | 42 | - | - |  | 37 | - |  |  |
| 99.9 | 149 | 66 | 44 | 44 | - | - | 55 | - | 71 |  | 29 |  | 57 |
| 99.9 | 148 | - | - | - | - | 41 | - | - |  | 36 |  | 56 | - |
| 99.9 | 147 | 65 | 43 | 43 | 57 | - | 54 | - |  | - | 28 | - | 56 |
| 99.9 | 146 | - | - | - | - | - | - | - |  | 35 |  | 55 | - |
| 99.9 | 145 | - | 42 | 42 | 56 | 40 | 53 |  | 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 |  |  | 56 | 65 |  | 25 | 52 | 53 |
| 99.6 | 140 | - | 40 | 40 | - | 38 |  | - | 64 | 32 | - | - | - |
| 99.5 | 139 | 62 | - | - | 53 |  | 50 | 55 | 63 | - | - | 51 | 52 |
| 99 | 138 | - | 39 | 39 |  |  | - |  | - | 31 | 24 | 50 | - |
| 99 | 137 | 61 | - | - |  | 37 | 49 |  | 62 | - | - | - | 51 |
| 99 | 136 | - | 38 | 38 | 52 | - |  | 54 | 61 | 30 | 23 | 49 | - |
| 99 | 135 | - | - |  |  | - | 48 | - | 60 | - | - | - | 50 |
| 99 | 134 | 60 | 37 |  | 51 | 36 |  | - | - | 29 | 22 | 48 | - |
| 99 | 133 | - | - |  | - |  | 47 | 53 | 59 | - | - | 47 | 49 |
| 98 | 132 | - | - |  | 50 |  | - | - | 58 | 28 | 21 | - | - |
| 98 | 131 | 59 | 36 | 36 |  |  | 46 | 52 | 57 | - | - | 46 | 48 |
| 98 | 130 | - |  |  |  |  | - | - | 56 | 27 | - | - | - |
| 97 | 129 | 58 | 35 |  | - | 34 | 45 | - | - | - | 20 | 45 | 47 |
| 97 | 128 |  |  |  |  | - | - | 51 | 55 | 26 | - | 44 | - |
| 96 | 127 | - | 34 |  | 48 | - | 44 | - | 54 | - | 19 | - | 46 |
| 96 | 126 |  | - |  | - | 33 | - | 50 | 53 | 25 | - | 43 | - |
| 95 | 125 | - | 3 | 33 | 47 | - | 43 | - | - | - | 18 | - | 45 |
| 95 | $124$ |  |  |  | - | 32 | 42 | - | 52 | - | - | 42 | - |
| 94 | 123 | - | 32 | 32 | 46 | - | - | 49 | 51 | 24 | 17 | - | 44 |
| 93 | 122 |  |  | - | - | - | 41 | - | 50 | - | - | 41 | - |
| 92 |  | $55$ |  | - | 45 | 31 | - | 48 | - | 23 | - | 40 | - |

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;
$\mathrm{MC}=$ Meaning from Context; INF = Inference; PL = Pragmatic Language
Table A. 1 continued on next page

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

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

| Ages 8-0 to 8-5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | $\begin{aligned} & \text { Standard } \\ & \text { score } \end{aligned}$ | RV | ANT | SYN | EV | SE | GM | SC | GJ | NL | MC | 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 | - |  | 36 | 40 |
| 81 | 113 | 52 | - | - | - | 28 | - | 45 | 43 | 19 |  | - | - |
| 79 | 112 | - | - | - | 41 | - | 36 | - | - | - |  | 35 | 39 |
| 77 | 111 | 51 | 27 | 27 | - | - | - | 44 | 42 | 18 |  | 34 |  |
| 75 | 110 | - | - | - | 40 | 27 | 35 | - | 41 | - |  | - | 38 |
| 73 | 109 | - | 26 | 26 | - | - | - | - | 40 | 17 | 11 |  |  |
| 70 | 108 | 50 | - | - | 39 | 26 | 34 | 43 |  | - | - |  |  |
| 68 | 107 | - | 25 | 25 | - | - | - | - |  |  | 10 |  | - |
| 66 | 106 | - | - | - | - | - | 33 | 42 |  | - |  |  | 36 |
| 63 | 105 | 49 | 24 | 24 | 38 | 25 | - |  |  | 15 |  | - | - |
| 61 | 104 | - | - | - | - | - | 32 |  | 36 | - |  | 30 | 35 |
| 58 | 103 | 48 | 23 | 23 | 37 | - | - | 41 | - | 14 |  | - | - |
| 55 | 102 | - | - | - | - | 24 |  |  | 35 |  | 8 | 29 | 34 |
| 53 | 101 | - | - | - | 36 | - | - |  |  | 13 | - | 28 | - |
| 50 | 100 | 47 | 22 | 22 | - | 23 | 30 | 40 |  |  | 7 | - | 33 |
| 47 | 99 | - | - | - | 35 |  | - | 39 |  |  | - | 27 | - |
| 45 | 98 | 46 | 21 | 21 | - |  | 29 | - |  | - | - | - | 32 |
| 42 | 97 | - | - | - | 34 | 22 | - |  |  | - | - | 26 | 31 |
| 39 | 96 | 45 | 20 | 20 |  |  | 28 | 37 | 30 | 11 | 6 | - | - |
| 37 | 95 | - | - | - |  |  |  |  | 29 | - | - | 25 | 30 |
| 34 | 94 | 44 | - | - | 33 | 21 |  |  | 28 | 10 | - | - | - |
| 32 | 93 | - | 19 |  |  | - | - | 35 | - | - | - | 24 | 29 |
| 30 | 92 | 43 | - |  |  |  |  | 34 | 27 | - | - | 23 | 28 |
| 27 | 91 | - | 18 |  | - |  |  | 33 | 26 | 9 | 5 | - | - |
| 25 | 90 | - |  |  |  |  | - | - | 25 | - | - | 22 | 27 |
| 23 | 89 | 42 |  |  |  |  | 25 | 32 | 24 | 8 | - | - | 26 |
| 21 | 88 |  |  |  | 30 | - | - | 31 | 23 | - | - | 21 | - |
| 19 | 87 |  |  |  |  | - | 24 | - | - | - | 4 | - | 25 |
| 18 | 86 |  | 16 |  | 29 | 18 | - | 30 | 22 | 7 | - | 20 | - |
| 16 |  |  |  |  | - | - | 23 | 29 | 21 | - | - | 19 | 24 |
| 14 | 84 |  |  | 15 | - | - | - | 28 | 20 | 6 | - | - | 23 |
| 13 | 83 | 39 |  |  | 28 | 17 | 22 | - | 19 | - | - | 18 | - |
| 12 | 82 |  |  | - | - | - | - | 27 | 18 | - | 3 | - | 22 |
|  | - 81 |  |  | 14 | 27 | - | 21 | 26 | - | 5 | - | 17 | 21 |

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

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RV | ANT | SYN | EV | SE | GM | sc | GJ | NL | MC | INF | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 3 |

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

| Ages 8-0 to 8-5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | SE | GM | SC | GJ | NL | MC | 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 | - | - |  | - | - |
| 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 |  | - |  | - |
| 2 | 69 | - | 9 | 9 | - | 12 | - | - | - | 0 | - |  | 14 |
| 2 | 68 | 32 | - | - | 21 | - | 15 | 17 |  | - | 0 |  | 13 |
| 1 | 67 | - | 8 | 8 | - | - | - | 16 |  | - |  | 9 | - |
| 1 | 66 | 31 | - | - | 20 | 11 | 14 | 15 |  | - |  | - | 12 |
| 1 | 65 | - | - | - | - | - | - |  | 4 |  |  | 8 | - |
| 1 | 64 | 30 | 7 | 7 | 19 | - | - |  | 3 |  | - | - | 11 |
| 1 | 63 | - | - | - | - | 10 |  |  | - |  | - | 7 | 10 |
| 1 | 62 | 29 | 6 | 6 | 18 | - |  | 12 | 2 |  | - | - | - |
| 0.5 | 61 | - | - | - | - |  | 12 | - |  |  | - | 6 | 9 |
| 0.4 | 60 | 28 | 5 | 5 | - |  |  | 11 |  | - | - | 5 | 8 |
| 0.3 | 59 | - | - | - | 17 |  | 11 | 10 |  | - | - | - | - |
| 0.3 | 58 | 27 | - | - |  |  | - |  | - | - | - | 4 | 7 |
| 0.2 | 57 | - | 4 | 4 |  |  |  |  | - | - | - | - | - |
| 0.2 | 56 | - | - | - |  |  |  |  | - | - | - | 3 | 6 |
| 0.1 | 55 | 26 | 3 |  | 15 | 7 | 9 | 7 | - | - | - | - | 5 |
| 0.1 | 54 | - | - |  |  |  |  | - | - | - | - | 2 | - |
| 0.1 | 53 | 25 | 2 |  | 14 |  | 8 | 6 | - | - | - | 1 | 4 |
| 0.1 | 52 | - | - |  | - |  | - | 5 | - | - | - | - | 3 |
| 0.1 | 51 | 24 |  |  |  |  | 7 | - | - | - | - | 0 | - |
| <0.1 | 50 | - |  | 1 |  |  | - | 4 | - | - | - | - | 2 |
| <0.1 | 49 |  |  |  |  | 5 | - | 3 | - | - | - | - | - |
| <0.1 | 48 |  | 0 |  | 12 | - | 6 | 2 | - | - | - | - | 1 |
| <0.1 | 47 |  | - |  | - | - | - | - | - | - | - | - | 0 |
| <0.1 | 46 |  | - |  | 11 | 4 | 5 | 1 | - | - | - | - | - |
| $<0.1$ | 45 | 21 |  | - | - | - | - | 0 | - | - | - | - | - |
| <0.1 |  |  |  |  | 10 | - | 4 | - | - | - | - | - | - |
| <0.1 | 43 | 20 |  | - | - | 3 | - | - | - | - | - | - | - |
| <0.1 | - 42 |  |  | - | 9 | - | 3 | - | - | - | - | - | - |
| <0.1 | 41 |  | - | - | - | 2 | - | - | - | - | - | - | - |
| - $<0.1$ | 40 |  | - | - | 0-8 | 0-1 | 0-2 | - | - | - | - | - | - |

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
Table A. 1 continued on next page

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

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

| Ages 8-6 to 8-11 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | SE | GM | SC | GJ | NL | MC | 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 |  | 62 | - |
| >99.9 | 153 | - | - | - | 61 | - | - | - | 75 | - |  | - | 61 |
| >99.9 | 152 | - | 47 | 47 | - | 44 | 58 | - | - | 40 |  | 61 | - |
| >99.9 | 151 | 67 | - | - | 60 | - | - | - | 74 |  |  | 60 | 60 |
| >99.9 | 150 | - | 46 | 46 | - | 43 | 57 | - | 73 | - 39 | 34 | - |  |
| 99.9 | 149 | 66 | - | - | - | - | - | - | 72 | - | - | 59 |  |
| 99.9 | 148 | - | 45 | 45 | 59 | - | 56 | - |  | 38 | 33 |  |  |
| 99.9 | 147 | - | - | - | - | 42 | - | - |  |  |  |  | 58 |
| 99.9 | 146 | 65 | 44 | 44 | 58 | - | 55 | - | 70 | 37 | 32 | 57 | - |
| 99.9 | 145 | - | - | - | - | - | - |  | 69 | - |  | - | 57 |
| 99.8 | 144 | - | - | - | 57 | 41 | 54 |  | - |  | 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 |  | - |  | 63 | - | 27 | 52 | - |
| 99 | 136 | - | - | - |  |  | 50 |  | - | 32 | - | 51 | 53 |
| 99 | 135 | 61 | 39 | 39 | 53. | - | - | 54 | 62 | - | 26 | - | - |
| 99 | 134 | - | - | - |  | 37 | 49 |  | 61 | 31 | - | 50 | 52 |
| 99 | 133 | - | 38 | 38 | 5 | - |  | - | 60 | - | 25 | - | - |
| 98 | 132 | 60 | - |  | - |  |  | 53 | - | 30 | - | 49 | 51 |
| 98 | 131 | - | 37 | 37 | 51 | 36 | 47 | - | 59 | - | 24 | 48 | - |
| 98 | 130 | 59 |  |  |  |  | - | - | 58 | 29 | - | - | 50 |
| 97 | 129 | - | 36 | 36 |  | 35 | 46 | 52 | 57 | - | 23 | 47 | - |
| 97 | 128 |  |  |  | 50 | - | - | - | - | 28 | - | - | 49 |
| 96 | 127 |  | - | - |  | - | 45 | 51 | 56 | - | 22 | 46 | - |
| 96 | 126 |  | 35 | 35 | 49 | 34 | - | - | 55 | 27 | - | 45 | 48 |
| 95 | 125 |  |  |  | - | - | 44 | - | 54 | - | 21 | - | - |
| 95 | 124 |  | 34 | 34 | 48 | - | - | 50 | - | 26 | - | 44 | 47 |
| 94 | 123 | - |  |  | - | 33 | 43 | - | 53 | - | 20 | - | - |
| 93 | $122$ | 56 | 33 | 33 | 47 | - | - | - | 52 | 25 | - | 43 | 46 |
| 92 | 121 | - |  | - | - | 32 | 42 | 49 | 51 | - | 19 | 42 | - |

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

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RV | ANT | SYN | EV | SE | GM | Sc | GJ | NL | MC | INF | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 3 |

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

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

Note. $\mathrm{RV}=$ Receptive Vocabulary; ANT = Antonyms; SYN = Synonyms; EV = Expressive Vocabulary; SE = Sentence Expression:
GM = Grammatical Morphemes; SC = Sentence Comprehension; GJ = Grammaticality Judgment; NL = Nonliteral Language;
$\mathcal{M C}=$ Meaning from Context; INF = Inference; PL = Pragmatic Language
Table A. 1 continued on next page


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

| Ages 8-6 to 8-11 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | SE | GM | SC | GJ | NL | MC | 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 | - |  | 13 | 17 |
| 3 | 71 | - | 10 | 10 | 24 | - | - | - | - | - |  | - |  |
| 2 | 70 | 34 | - | - | - | - | 17 | 20 | 11 | 2 |  | 12 | 16 |
| 2 | 69 | - | - | - | 23 | 13 | - | 19 | 10 |  | - |  | 15 |
| 2 | 68 | 33 | 9 | 9 | - | - | - | - | 9 | 1 | 0 |  |  |
| 1 | 67 | - | - | - | 22 | - | 16 | 18 |  |  |  | , | 14 |
| 1 | 66 | 32 | 8 | 8 | - | 12 | - | 17 |  | - | - |  | 13 |
| 1 | 65 | - | - | - | 21 | - | 15 |  | 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 |  |  | 3 |  | - | - | 10 |
| 0.4 | 60 | - | - | - | - | - |  | 13 |  |  | - | 6 | - |
| 0.3 | 59 | 29 | 5 | 5 | - |  | - | 12 | 2 | - | - | - | 9 |
| 0.3 | 58 | - | - | - | 18 |  |  | 11 |  | - | - | 5 | 8 |
| 0.2 | 57 | 28 | - | - | - |  | 11 |  |  | - | - | 4 | - |
| 0.2 | 56 | - | 4 | 4 | 17 |  | - |  | - | - | - | - | 7 |
| 0.1 | 55 | 27 | - | - |  | 8 | $10$ |  | - | - | - | 3 | 6 |
| 0.1 | 54 | - | 3 | 3 |  | - |  |  | - | - | - | - | - |
| 0.1 | 53 | 26 | - |  |  | - |  | 8 | - | - | - | 2 | 5 |
| 0.1 | 52 | - | 2 |  | 15 |  |  | 7 | - | - | - | 1 | 4 |
| 0.1 | 51 | - |  |  |  |  |  | - | - | - | - | - | - |
| <0.1 | 50 | 25 |  |  |  |  | 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 | - | - | - | - | - |
| <0.1 | 45 |  |  |  | 12 | - | - | 2 | - | - | - | - | 0 |
| <0.1 |  | 22 |  |  | - | 4 | 5 | - | - | - | - | - | - |
| <0.1 | 43 | - |  |  | 11 | - | - | 1 | - | - | - | - | - |
| <0.1 | 42 | 21 |  | - | - | - | 4 | 0 | - | - | - | - | - |
| <0.1 | - 41 |  |  | - | 10 | 3 | - | - | - | - | - | - | - |
| $<0.1$ | 40 | 0-20 |  | - | 0-9 | 0-2 | 0-3 | - | - | - | - | - | - |

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;
$M C=$ Meaning from Context; INF = Inference; PL = Pragmatic Language

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

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

| Ages 7-0 to 9-11 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| >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 | ) | >99.9 |
| >99.9 | 155 | - | 442-443 | 611-614 | 458-460 | - | 465-467 | 5 | >99.9 |
| >99.9 | 154 | 780-784 | 439-441 | 607-610 | 456-457 | 608-610 | 462-464 | 15 | 99. |
| >99.9 | 153 | 775-779 | 436-438 | 604-606 | 453-455 | 604-607 | 459-461 | 153 |  |
| >99.9 | 152 | 770-774 | 434-435 | 600-603 | 450-452 | 601-603 | 56-458 | 152 | 99 |
| >99.9 | 151 | 764-769 | 431-433 | 596-599 | 448-449 | 597-600 | 53-455 | 51 | 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 | 14.9 | 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 | 434-43 | 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 | 570-57 | 429-431 | 570-573 | 432-434 | 144 | 99.8 |
| 99.8 | 143 | 723-727 | 411-413 | 566-56 | 426-428 | 567-569 | 430-431 | 143 | 99.8 |
| 99.7 | 142 | 718-722 | 409-410 | 52-565 | 424-425 | 563-566 | 427-429 | 142 | 99.7 |
| 99.7 | 141 | 713-717 | 406-408 | 559-561 | 1-423 | 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 | 698-70 | 399-400 | 547-550 | 413-415 | 548-551 | 415-417 | 138 | 99 |
| 99 | 137 | 692-69 | 396-39 | 54-546 | 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 |  | 682-686 | 391-393 | 536-539 | 405-406 | 537-539 | 406-408 | 135 | 99 |
| 99 | 34 | 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 | 67-671 | 384-385 | 525-528 | 397-398 | 525-528 | 397-399 | 132 | 98 |
| 98 |  | 662-666 | 381-383 | 521-524 | 394-396 | 521-524 | 394-396 | 131 | 98 |

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 $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |  |  |  |  |  |  |
| $95 \%$ confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |  |  |  |  |  |  |

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

| Ages 7-0 to 9-11 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 |  | 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 | 75 | 124 | 0 |
| 94 | 123 | 621-625 | 361-363 | 491-494 | 373-374 | 491-494 | 371-372 | 123 |  |
| 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 |  | 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 | 39-361 | 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 | 3 | 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 | $103$ | $18-522$ | 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 |
| $53$ | 101 | 508-512 | 306-307 | 409-411 | 314-315 | 408-411 | 306-308 | 101 | 53 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index;

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

| Ages 7-0 to 9-11 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 |  | 45 |
| 42 | 97 | 487-491 | 296-297 | 394-397 | 303-305 | 393-396 | 294-296 |  |  |
| 39 | 96 | 482-486 | 293-295 | 390-393 | 300-302 | 389-392 | 291-293 | 6 | 39 |
| 37 | 95 | 477-481 | 291-292 | 386-389 | 298-299 | 386-388 | 288-290 | 95 |  |
| 34 | 94 | 472-476 | 288-290 | 383-385 | 295-297 | 382-385 | 285-287 | 9 |  |
| 32 | 93 | 467-471 | 286-287 | 379-382 | 292-294 | 378-381 | 282-284 | 93 |  |
| 30 | 92 | 461-466 | 283-285 | 375-378 | 290-291 | 374-377 | 79-281 | 92 |  |
| 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 | 9 | 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 | 3-275 | 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 | 345-34 | 268-270 | 344-347 | 256-257 | 84 | 14 |
| 13 | 83 | 415-419 | 260-262 | 34 | 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 | 55-257 | 334-337 | 60-26 | 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 | 50-252 | 326-32 | 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 | 384-38 | 245-24 | 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 |  | 374-378 | 40-242 | 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 | 59-363 | 233-234 | 300-303 | 236-238 | 299-302 | 220-222 | 72 | 3 |
| $3$ |  | 354-358 | 230-232 | 296-299 | 233-235 | 295-298 | 217-219 | 71 | 3 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; $S I=$ Syntactic Index: $S P I=$ Supralinguistic Index

| CASL-2 Index Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GLAI |  |  |  |  |  |  |  | RLI | ELI | LSI | SI | SPI |
| 90\% confidence interval $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |  |  |  |  |  |  |
| $95 \%$ confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |  |  |  |  |  |  |

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

| Ages 7-0 to 9-11 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sums of standard scores |  |  |  |  |  |  |  | Standard score | Percentile |
| Percentile | Standard score | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 | , | 2 |
| 1 | 67 | 333-337 | 220-222 | 281-284 | 222-224 | 280-283 | 205-207 |  | 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 | 64 | 318-322 | 213-214 | 270-273 | 214-216 | 269-272 | 197-198 | 64 |  |
| 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 | 261-26 | 191-193 | 62 |  |
| 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 | 182-1 | 224-226 | - | 52 | 0.1 |
| 0.1 | 51 | 251-255 | 180-182 | 221-224 | 180-181 | 220-223 | - | 51 | 0.1 |
| <0.1 | 50 | 246-250 | 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 | 38-240 | 173-174 | 210-213 | 172-173 | 208-211 | - | 48 | <0.1 |
| <0.1 | 47 |  | 70-172 | 206-209 | 169-171 | 205-207 | - | 47 | <0.1 |
| <0.1 |  |  | 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 |
| 30.1 | 42 |  | 157-159 | 188-190 | 155-157 | 186-189 | - | 42 | <0.1 |
| $<0.1$ | 41 | - | 155-156 | 184-187 | 153-154 | 182-185 | - | 41 | <0.1 |
| $<0.1$ | 40 | - | 127-154 | 168-183 | 130-152 | 162-181 | - | 40 | <0.1 |

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 $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |  |  |  |  |  |  |  |  |
| 95\% confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |  |  |  |  |  |  |  |  |

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

| 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 |
| 4-9 to 4-11 | 30-31 | - | - | 18 | - | - | 14 | 21 | - | - |  |  | - | 10 |
| 5-0 to 5-2 | 32 | 8-9 | 8-9 | 19 | - | 13 | 15 | 22-23 | 7-8 | - |  |  | - | 1 |
| 5-3 to 5-5 | 33-34 | 10-11 | 10-11 | 20-21 | - | 14 | 16 | 24-25 | 9-11 |  |  | 12 |  | -13 |
| 5-6 to 5-8 | 35 | 12 | 12-13 | 22 | - | 15 | 17 | 26 | 12-14 |  | - | 13 | - | 14 |
| 5-9 to 5-11 | 36-37 | 13-14 | 14 | 23 | - | - | 18 | 27-28 | 15-16 |  | - | 14-1 |  | 15-16 |
| 6-0 to 6-2 | 38 | 15 | 15 | 24 | - | 16 | 19-20 | 29 | 17-18 |  |  |  | - | 17 |
| 6-3 to 6-5 | 39-40 | 16 | 16 | 25-26 | - | 17 | 21 | 30-31, | 19-20 | - |  | 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 |  | 4 | 21-22 | - | 24-25 |
| 7-3 to 7-5 | 44 | - | 20 | 31 | - | 20 | 26 | 36 | 27-28 | 7-8 | 5 | 23 | - | 26-27 |
| 7-6 to 7-8 | 45 | 20 | - | 32-33 | - | 21 | 7-28 | 37-38 | 29-30 | 9 | - | 24-25 | - | 28-29 |
| 7-9 to 7-11 | 46 | 21 | 21 | 34 | - | 22 | 2 | $39$ | 31-32 | 10-11 | 6 | 26 | - | 30-31 |
| 8-0 to 8-5 | 47 | 22 | 22 | 35-36 |  |  | 30 | 4 | 33-34 | 12-13 | 7 | 27-28 | - | 32-33 |
| 8-6 to 8-11 | 48 | 23 | - | 37 |  | 24 | 31-32 |  | 35-36 | 14-15 | 8 | 29-30 | - | 34-36 |
| 9-0 to 9-5 | 49 | - | 23 | 38-39 |  | 25 | 3 | 42 | 37-38 | 16 | 9 | 31 | 3 | 37-38 |
| 9-6 to 9-11 | 50 | 24 | 24 | 40-41 |  | 26 | 34 | 43 | 39-40 | 17-18 | 10 | 32-33 | 4-5 | 39-40 |
| 10-0 to 10-5 | 51 | 25 | 25 | 42 | 10 |  | 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 | 2 | 29-30 | 38-39 | 46 | 46-47 | 23 | 13-14 | 38-39 | 9 | 46-47 |
| $11-6$ to 11-11 | 53 | 8-29 | 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 | 8-4 | 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 14-11 |  | 35-36 | 5-37 | 54-55 | 25-27 | 36-37 | 45-46 | 50 | 58-60 | 31 | 20-21 | 49-50 | 18-19 | 56-57 |
| $15-0 \text { to } 15-11$ | 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 |

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

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

| Third Grade, Fall |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | 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 |  | 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 | - | - |  | - | - | 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 | O1 | 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 | - | - |  | - | 26 | 56 | - | - |
| 99.5 | 139 | - | 41 | 41 | 54. |  |  | 48 | 55 | 55 | 34 | - | 55 | 25 | 58 |
| 99 | 138 | 61 | - | - | - |  | - | - |  | - | 33 | 25 | - | - | 57 |
| 99 | 137 | - | - | 40 | 53 | 30 | 38 | 47 |  | 54 | - | - | 54 | 24 | - |
| 99 | 136 | - | 40 | - |  |  |  |  | - | - | 32 | 24 | 53 | 23 | 56 |
| 99 | 135 | 60 | - | 39 | 52 | 29 |  | 46 | 53 | 53 | - | - | - | - | - |
| 99 | 134 | - | 39 |  | - | 28 |  |  | - | 52 | 31 | 23 | 52 | 22 | 55 |
| 99 | 133 | 59 |  | 38 | 51 |  |  | 45 | 52 | - | - | - | 51 | - | 54 |
| 98 | 132 | - |  |  | - | 27 | 36 | - | - | 51 | 30 | 22 | 50 | 21 | - |
| 98 | 131 | - | - |  |  | - | - | 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 |  | 35 | - | - | - | - | 41 | - | 47 | - | - | - | 17 | 49 |
| 95 | 124 |  |  | 34 | 47 | 22 | 33 | - | - | - | 26 | 18 | 45 | 16 | 48 |
| 94 | 123 |  |  | - | - | 21 | - | 40 | 48 | 46 | - | - | 44 | - | - |
|  | 122 | 5 | 34 | 33 | 46 | - | 32 | - | - | 45 | 25 | 17 | 43 | 15 | 47 |
| 92 | 121 |  | - | - | - | 20 | - | 39 | 47 | - | - | - | - | - | 46 |

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
Table A. 4 continued on next page

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ) | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | INF | DM | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 4 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 6 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 5 | 3 |

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

|  | Third Grade, Fall |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentile | Standard score | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | 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 |
| A. 4 | 84 | 115 | - | 31 | - | - | 16 | - | 36 | - | 41 | 21 | 14 |  |  | - |
| GRADE | 82 | 114 | 52 | - | - | 42 | - | 29 | - | 44 | - | - | - |  |  | 42 |
| 3 | 81 | 113 | - | 30 | 29 | - | 15 | - | 35 | - | 40 | 20 |  |  | 10 | 41 |
| FALL | 79 | 112 | 51 | - | - | 41 | 14 | 28 | - | 43 | - | - |  | 36 | 9 | - |
|  | 77 | 111 | - | 29 | 28 | - | - | - | 34 | - | 39 |  | 2 |  | - | $40$ |
|  | 75 | 110 | - | - | - | - | 13 | - | - | 42 | 38 |  |  | 35 |  | 39 |
|  | 73 | 109 | 50 | - | 27 | 40 | 12 | 27 | 33 | - |  |  |  | 34 |  |  |
|  | 70 | 108 | - | 28 | - | - | - | - | - | 41 |  |  | - | - |  | 38 |
|  | 68 | 107 | - | - | 26 | 39 | 11 | 26 | 32 | - |  |  | 10 |  | 6 | 37 |
|  | 66 | 106 | 49 | 27 | - | - | 10 | - | - | - | 36 |  | _ |  |  | - |
|  | 63 | 105 | - | - | 25 | 38 | - | - | - | 40 |  | 16 |  |  | 5 | 36 |
|  | 61 | 104 | 48 | 26 | - | - | 9 | 25 | 31 |  | 35 | - |  |  | - | - |
|  | 58 | 103 | - | - | 24 | 37 | 8 | - |  |  | 34 |  | 8 |  | 4 | 35 |
|  | 55 | 102 | - | - | - | - | - | - | 30 |  | - |  |  | 29 | - | 34 |
|  | 53 | 101 | 47 | 25 | 23 | 36 | 7 |  |  | 38 | 33 |  |  | - | 3 | - |
|  | 50 | 100 | - | - | - | - | - |  |  | - |  |  | 7 | 28 | - | 33 |
|  | 47 | 99 | 46 | 24 | - | 35 | 6 |  |  |  |  |  | - | - | - | 32 |
|  | 45 | 98 | - | - | 22 | - |  |  | 28 |  | 31 | , | - | 27 | - | - |
|  | 42 | 97 | - | - | - | 34 |  |  | - |  | 30 | 12 | - | 26 | 2 | 31 |
|  | 39 | 96 | 45 | 23 | 21 |  |  | 22 | 27 |  | 29 | - | - | - | - | 30 |
|  | 37 | 95 | - | - | - |  |  | - |  |  | - | - | 6 | 25 | - | - |
|  | 34 | 94 | 44 | 22 | - |  | - |  |  | 34 | 28 | 11 | - | - | - | 29 |
|  | 32 | 93 | - | - | 20 |  | - |  |  | 33 | 27 | - | - | 24 | - | - |
|  | 30 | 92 | 43 | 21 |  | - |  |  | - | - | 26 | 10 | - | - | - | 28 |
|  | 27 | 91 | - |  |  | 31 |  |  | 25 | 32 | 25 | - | - | 23 | - | 27 |
|  | 25 | 90 |  |  | 19 |  |  | 20 | - | 31 | - | 9 | - | - | - | - |
|  | 23 | 89 |  |  | - |  |  | - | 24 | - | 24 | - | 5 | 22 | - | 26 |
|  | 21 | 88 |  |  |  |  |  | - | - | 30 | 23 | - | - | - | - | 25 |
|  | 19 | 87 |  | 19 |  |  | - | 19 | 23 | 29 | 22 | 8 | - | 21 | - | - |
|  | 18 | 86 |  |  | - |  | - | - | - | - | 21 | - | - | - | - | 24 |
|  | 16 | 85 | 40 |  |  | - | - | - | - | 28 | - | 7 | - | 20 | - | - |
|  | 14 |  |  |  |  | 28 | 2 | 18 | 22 | 27 | 20 | - | - | - | - | 23 |
|  | 13 | 83 |  |  | - | - | - | - | - | - | 19 | - | 4 | 19 | 1 | 22 |
|  | 12 | 82 |  |  | 16 | 27 | - | - | 21 | 26 | 18 | 6 | - | - | - | - |
|  | 10 | 81 | 38 |  | - | - | - | 17 | - | 25 | 17 | - | - | 18 | - | 21 |

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; $1 N F=$ Inference; $D M=$ Double Meaning; PL = Pragmatic Language

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | INF | DM | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 4 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 6 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 5 | 3 |

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

| Third Grade, Fall |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard | 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 | - |  |  | - |  |  |
| 4 | 73 | - | - | - | - | - | - | 17 | 20 | 11 |  |  | - | - |  |  |
| 3 | 72 | 34 | 13 | 12 | 22 | - | 14 | - | 19 | 10 |  |  | 13 | - |  |  |
| 3 | 71 | - | - | - | - | - | - | 16 | - | - | - |  | - | - | - |  |
| 2 | 70 | 33 | 12 | - | 21 | - | - | - | 18 | 9 | 1 |  | 12 |  | 4 |  |
| 2 | 69 | - | - | 11 | - | - | 13 | - | 17 |  |  | - |  |  | - |  |
| 2 | 68 | - | - | - | 20 | - | - | 15 | - |  | 0 | - |  |  | 13 |  |
| 1 | 67 | 32 | 11 | 10 | - | - | - | - |  |  | - |  |  | - | 12 |  |
| 1 | 66 | - | - | - | - | - | 12 | 14 | 15 |  | - |  |  | - | - |  |
| 1 | 65 | 31 | 10 | - | 19 | - | - | - | - |  |  |  | - | - | 11 |  |
| 1 | 64 | - | - | 9 | - | - | - |  |  | 4 |  |  | 9 | - | 10 |  |
| 1 | 63 | 30 | - | - | 18 | - |  |  | - | 3 |  |  | - | - | - |  |
| 1 | 62 | - | 9 | - | - | - |  |  | 13 |  |  |  | 8 | - | 9 |  |
| 0.5 | 61 | 29 | - | 8 | 17 | - | - |  | 12 |  |  | - | - | - | - |  |
| 0.4 | 60 | - | 8 | - | - |  | 10 | - | - |  | - | - | 7 | - | 8 |  |
| 0.3 | 59 | - | - | 7 |  |  |  | 11 | 11 | - | - | 0 | - | - | 7 |  |
| 0.3 | 58 | 28 | - | - |  |  | - |  |  |  | - | - | 6 | - | - |  |
| 0.2 | 57 | - | 7 | - |  |  | 9 |  | ) | - | - | - | 5 | - | 6 |  |
| 0.2 | 56 | 27 | - |  |  |  |  |  | 9 | - | - | - | - | - | 5 |  |
| 0.1 | 55 | - | 6 | - | 14 | - |  |  | 8 | - | - | - | 4 | - | - |  |
| 0.1 | 54 | 26 | - |  | - | - | 8 |  | - | - | - | - | - | - | 4 |  |
| 0.1 | 53 | - |  |  | 13 |  |  | - | 7 | - | - | - | 3 | - | - |  |
| 0.1 | 52 | 25 |  |  | - |  |  | 8 | 6 | - | - | - | - | - | 3 |  |
| 0.1 | 51 | - | - |  |  |  | 7 | - | - | - | - | - | 2 | - | 2 |  |
| $<0.1$ | 50 |  | 4 |  |  |  | - | 7 | 5 | - | - | - | - | - | - |  |
| <0.1 | 49 |  | - |  |  | - | - | - | 4 | - | - | - | 1 | - | 1 |  |
| <0.1 |  |  | 3 |  |  | - | 6 | 6 | - | - | - | - | - | - | 0 |  |
| $<0.1$ | 47 | 23 | - |  | 10 | - | - | - | 3 | - | - | - | 0 | - | - |  |
| $<0.1$ | 46 | - | - | 2 | - | - | - | - | 2 | - | - | - | - | - | - |  |
| $<0.1$ | 45 |  |  | - | 9 | - | 5 | 5 | - | - | - | - | - | - | - |  |
|  |  |  |  | - | - | - | - | - | 1 | - | - | - | - | - | - |  |
| $<0.1$ | 43 |  |  | 1 | - | - | - | 4 | 0 | - | - | - | - | - | - |  |
|  | 42 |  | - | - | 8 | - | 4 | - | - | - | - | - | - | - | - |  |
| 8.1 | 41 |  | - | - | - | - | - | 3 | - | - | - | - | - | - | - |  |
|  |  |  | 0 | 0 | 0-7 | - | 0-3 | 0-2 | - | - | - | - | - | - | - |  |

A. 4

GRADE
fALL

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

Table A. 4 continued on next page


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

|  | Third Grade, Spring |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentile | Standard score | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | INF | DM | PL |
|  | >99.9 | 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 | - |
| A. 4 | >99.9 | 154 | - | 49 | 50 | 63 | 42 | 46 | - | - | - | 43 | - |  | - | - |
| A. 4 | >99.9 | 153 | 68 | - | - | - | 41 | - | 56 | - | 64 | - |  |  | 35 | - |
| GRADE | >99.9 | 152 | - | - | 49 | 62 | - | 45 | - | - | - | 42 |  |  | 34 | - |
| SPRING | >99.9 | 151 | 67 | 48 | - | - | 40 | - | - | - | 63 |  | 34 |  | - |  |
|  | >99.9 | 150 | - | - | 48 | 61 | 39 | - | 55 | - | - | 41 |  | 65 | 33 | - |
|  | 99.9 | 149 | - | 47 | - | - | - | 44 | - | - | 62 | - | 33 | 64 |  | - |
|  | 99.9 | 148 | 66 | - | - | 60 | 38 | - | 54 | - |  | 40 | - | 63 | 32 | - |
|  | 99.9 | 147 | - | 46 | 47 | - | 37 | 43 | - | - |  |  | 32 |  | 31 | - |
|  | 99.9 | 146 | - | - | - | 59 | - | - | 53 | - | 60 | 39 | - |  |  | - |
|  | 99.9 | 145 | 65 | - | 46 | - | 36 | - | - |  |  | - |  |  | 30 | - |
|  | 99.8 | 144 | - | 45 | - | 58 | 35 | 42 | 52 |  | 59 | 38 | - |  | - | - |
|  | 99.8 | 143 | 64 | - | 45 | - | - | - |  |  | - | - | 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 | - | - | 33 |  | 50 | 56 | 57 | 36 | - | 58 | 27 | - |
|  | 99.5 | 139 | - | - | 43 | 56 | 32 | 40 | - |  | 56 |  | 28 | 57 | - | 60 |
|  | 99 | 138 | - | - | - | - | , |  | 49 |  |  | 35 | - | - | 26 | 59 |
|  | 99 | 137 | 62 | 42 | 42 | 55 | 31 |  | - |  | 55 | - | 27 | 56 | 25 | - |
|  | 99 | 136 | - | - | - | - | 30 | 39 | 48 |  | - | 34 | - | 55 | - | 58 |
|  | 99 | 135 | 61 | 41 | 41 | 54 |  | - |  |  | 54 | - | 26 | 54 | 24 | - |
|  | 99 | 134 | - | - | - |  | 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 | - |  |  | 52 | 27 | 37 | - | - | - | 31 | - | - | - | 55 |
|  | 98 | 130 |  | 39 | - |  |  | - | 45 | 52 | 51 | - | 23 | 51 | 21 | - |
|  | 97 | 129 |  | - | 38 | 51 | 26 | 36 | - | - | - | 30 | - | 50 | 20 | 54 |
|  | 97 | 128 |  | 38 |  | - | 25 | - | 44 | 51 | 50 | - | 22 | - | - | 53 |
|  | 96 | 127 |  | - | 3 |  | - | - | - | - | - | 29 | - | 49 | 19 | - |
|  | 96 | 126 |  | - | - | 50 | 24 | 35 | 43 | 50 | 49 | - | 21 | 48 | - | 52 |
|  | 95 | 125 | - | 37 | 36 | - | 23 | - | - | - | - | 28 | - | - | 18 | 51 |
|  | 95 | $124$ |  | - |  | 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 |  |  | - | - | - | 33 | - | 48 | 46 | 26 | - | 45 | - | 49 |

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

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ) | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | INF | DM | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 4 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 6 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 5 | 3 |

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; $\mathrm{GM}=\mathrm{Grammatical}$ Morphemes; $\mathrm{SC}=$ Sentence Comprehension; GJ = Grammaticality Judgment; $\mathrm{NL}=$ Nonliteral Language;
MC = Meaning from Context; INF = Inference; DM = Double Meaning; PL = Pragmatic Language
Table A. 4 continued on next page

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ) | RV | ANT | SYN | EV | IL | SE | GM | Sc | GJ | NL | MC | INF | DM | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 4 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 6 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 5 | 3 |

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

| Third Grade, Spring |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | RV | ANT | SYN | EV | IL | SE | GM | SC | GJ | NL | MC | 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 | - |  |  |  | 18 |
| 3 | 72 | - | - | 13 | 24 | - | 15 | - | - | 13 | 2 |  |  | - | - |
| 3 | 71 | - | 14 | - | - | - | - | - | 21 | - |  |  | 14 | - | 17 |
| 2 | 70 | 35 | - | - | - | - | - | 17 | 20 | 12 |  |  | - | - |  |
| 2 | 69 | - | - | 12 | 23 | - | 14 | - | - | 11 | - |  | 13 | 0 | ) |
| 2 | 68 | 34 | 13 | - | - | - | - | 16 | 19 | 10 | 0 | - | - | - | 15 |
| 1 | 67 | - | - | 11 | 22 | - | - | - | 18 |  |  | - | 2 |  | - |
| 1 | 66 | 33 | 12 | - | - | - | 13 | 15 | - | 9 |  | - |  |  | 14 |
| 1 | 65 | - | - | - | 21 | - | - | - | 17 | 8 | - |  | 10 | - | 13 |
| 1 | 64 | - | - | 10 | - | - | - | 14 | 16 | 7 | - | - |  | - | - |
| 1 | 63 | 32 | 11 | - | 20 | - | 12 | - | - | - | - |  | - | - | 12 |
| 1 | 62 | - | - | 9 | - | - | - | - | 15 | 6 | - |  | 9 | - | 11 |
| 0.5 | 61 | 31 | 10 | - | 19 | - |  | 13 |  | 5 | - |  | - | - | - |
| 0.4 | 60 | - | - | - | - | - | 11. | - | - | 4 |  | 0 | 8 | - | 10 |
| 0.3 | 59 | 30 | 9 | 8 | 18 |  | - | 12 | 13 | - |  | - | - | - | 9 |
| 0.3 | 58 | - | - | - | - |  |  | - |  |  | - | - | 7 | - | - |
| 0.2 | 57 | 29 | - | 7 |  |  | 10 | 11 | 12 |  | - | - | - | - | 8 |
| 0.2 | 56 | - | 8 | - |  |  | - |  | 11 | 1 | - | - | 6 | - | - |
| 0.1 | 55 | - | - | - | 16 |  | - |  |  | - | - | - | 5 | - | 7 |
| 0.1 | 54 | 28 | 7 | 6 | - | - |  |  | 10 | 0 | - | - | - | - | 6 |
| 0.1 | 53 | - | - | - | 15 | - |  |  | 9 | - | - | - | 4 | - | - |
| 0.1 | 52 | 27 | - | 5 | - |  |  | 9 | - | - | - | - | - | - | 5 |
| 0.1 | 51 | - |  |  | 14 |  | 8 | - | 8 | - | - | - | 3 | - | 4 |
| <0.1 | 50 |  |  | - |  |  | - | 8 | 7 | - | - | - | - | - | - |
| <0.1 | 49 |  | 5 | 4 | - |  | - | - | - | - | - | - | 2 | - | 3 |
| <0.1 | 48 |  |  |  | 13 |  | 7 | 7 | 6 | - | - | - | - | - | 2 |
| <0.1 | 47 |  | 4 |  | - | - | - | - | - | - | - | - | 1 | - | - |
| <0.1 | 46 |  | - | - | 12 | - | - | 6 | 5 | - | - | - | 0 | - | 1 |
| <0.1 | 45 | 24 |  |  | - | - | 6 | - | 4 | - | - | - | - | - | 0 |
| <0.1 | 44 |  | 3 |  | 11 | - | - | 5 | - | - | - | - | - | - | - |
| <0.1 |  |  | - | - | - | - | 5 | - | 3 | - | - | - | - | - | - |
| <0.1 |  |  |  | 1 | 10 | - | - | - | 2 | - | - | - | - | - | - |
| <0.1 | $41$ |  |  | - | - | - | - | 4 | - | - | - | - | - | - | - |
| <0.1 | 40 | 0-21 | 0-1 | 0 | 0-9 | - | 0-4 | 0-3 | 0-1 | - | - | - | - | - | - |

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

| CASL-2 Test Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | RV | ANT | SYN | EV | IL | SE | GM | sc | GJ | NL | MC | INF | DM | PL |
| 90\% confidence interval $\pm$ | 6 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 2 | 3 | 4 | 3 | 4 | 3 |
| 95\% confidence interval $\pm$ | 7 | 6 | 7 | 7 | 6 | 9 | 8 | 8 | 3 | 3 | 4 | 3 | 5 | 3 |

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

| Second Through Fourth Grade |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| >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 |  | >99.9 |
| >99.9 | 156 | 691-693 | 417-418 | 595-597 | 455-457 | 562-564 | 426-427 | 56 | >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 | -4 | 154 | 99.9 |
| >99.9 | 153 | 681-683 | 411-412 | 584-587 | 447-449 | 553-555 | 419-420 | 153 | 9 |
| >99.9 | 152 | 677-680 | 409-410 | 581-583 | 445-446 | 550-552 | 417-418 | 152 | S99.9 |
| >99.9 | 151 | 674-676 | 407-408 | 577-580 | 442-444 | 547-549 | 15-416 |  | >99.9 |
| >99.9 | 150 | 671-673 | 405-406 | 573-576 | 439-441 | 544-546 | 12-414 | O | >99.9 |
| 99.9 | 149 | 667-670 | 403-404 | 570-572 | 437-438 | 41-543 | 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 | 52-5 | 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 | 534-53 | 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 | 619-62 | 375-376 | 520-523 | 399-401 | 500-502 | 379-380 | 135 | 99 |
| 99 | 134 | 616-61 | 373-374 | 517-519 | 397-398 | 497-499 | 376-378 | 134 | 99 |
|  | 133 | 613-615 | 371-372 | 513-516 | 394-396 | 494-496 | 374-375 | 133 | 99 |
| 98 | 13 | 609-612 | 369-370 | 510-512 | 391-393 | 491-493 | 372-373 | 132 | 98 |
| $98$ | 131 | 606-608 | 367-368 | 506-509 | 389-390 | 488-490 | 370-371 | 131 | 98 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index;

| CASL-2 Index Confidence Values |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GLAI | RLI | ELI | LSI | SI | SPI |
| 90\% confidence interval $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |
| 95\% confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |

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

| Second Through Fourth Grade |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 | 12 | 96 |
| 96 | 126 | 589-591 | 357-358 | 488-491 | 375-377 | 474-475 | 358-360 |  | 96 |
| 95 | 125 | 585-588 | 355-356 | 485-487 | 373-374 | 471-473 | 356-357 | 125 |  |
| 95 | 124 | 582-584 | 353-354 | 481-484 | 370-372 | 468-470 | 354-355 | 124 |  |
| 94 | 123 | 579-581 | 351-352 | 478-480 | 367-369 | 465-467 | $352-353$ | 123 |  |
| 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 | 1 | 9 |
| 91 | 120 | 568-571 | 345-346 | 467-470 | 359-361 | 456-458 | 345-346 | 2 | 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 | $102$ | $07-510$ | 309-310 | 403-406 | 312-313 | 403-405 | 305-306 | 102 | 55 |
|  |  | $504-506$ | 307-308 | 400-402 | 309-311 | 400-402 | 302-304 | 101 | 53 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; $S 1=$ Syntactic Index: SPI $=$ Supralinguistic Index

| CASL-2 Index Confidence Values |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GLAI | RLI | ELI | LSI | SI | SPI |
| 90\% confidence interval $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |
| 95\% confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |

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

| Second Through Fourth Grade |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Standard score | Sums of standard scores |  |  |  |  |  | Standard score | Percentile |
|  |  | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 |  | 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 | 7-288 | 94 | 4 |
| 32 | 93 | 477-479 | 291-292 | 371-374 | 288-289 | 377-378 | 284-286 | 93 |  |
| 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 |  | 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 | 275-27) | 89 | 23 |
| 21 | 88 | 460-462 | 281-282 | 354-356 | 274-276 | 362-364 | 273-27 | 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 | 356-358 | 269-270 | 86 | 18 |
| 16 | 85 | 449-452 | 275-276 | 343-345 | 266-268 | 353-35 | 266-268 | 85 | 16 |
| 14 | 84 | 446-448 | 273-274 | 339-3 | 264-26 | 350-352 | 264-265 | 84 | 14 |
| 13 | 83 | 443-445 | 271-272 | 336-338 | 261-26 | 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 | 22-324 | 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 |  | 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 | 15-418 | 255-256 | 307-310 | 240-241 | 324-326 | 244-245 | 75 | 5 |
| 4 |  | 412-414 | 253-254 | 304-306 | 237-239 | 321-323 | 242-243 | 74 | 4 |
| 4 |  | 408-411 | 251-252 | 300-303 | 234-236 | 318-320 | 239-241 | 73 | 4 |
| 3 | 72 | 05-407 | 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 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index;

| CASL-2 Index Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GLAI |  |  |  |  |  |  |  | RLI | ELI | LSI | SI | SPI |
| $90 \%$ confidence interval $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |  |  |  |  |  |  |
| $95 \%$ confidence interval $\pm$ | 2 | 5 | 4 | 4 | 4 | 3 |  |  |  |  |  |  |

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

| Second Through Fourth Grade |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sums of standard scores |  |  |  |  |  |  |  | Standard score | Percentile |
| Percentile | Standard score | GLAI | RLI | ELI | LSI | SI | SPI |  |  |
| 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 |  | 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 |  |  |
| 1 | 64 | 378-380 | 233-234 | 268-271 | 211-212 | 291-293 | 219-220 | 6 |  |
| 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 |  |
| 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 | 04-20 | 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 | 20-322 | 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 | - | 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 |
| $\bigcirc 01$ | 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 |

Note. GLAI = General Language Ability Index; RLI = Receptive Language Index; ELI = Expressive Language Index; LSI = Lexical/Semantic Index; $\mathrm{SI}=$ Syntactic Index; $\mathrm{SP} \mid=$ Supralinguistic Index

| CASL-2 Index Confidence Values |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GLAI |  |  |  |  |  |  |  | RLI | ELI | LSI | SI | SPI |
| $90 \%$ confidence interval $\pm$ | 2 | 4 | 3 | 4 | 3 | 3 |  |  |  |  |  |  |
| $95 \%$ confidence interval $\pm$ | 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 index |  | GLAI | RLV | E | LSI | SI | SPI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Language Ability Index (GLAI) |  |  |  |  |  |  |  |
| Receptive Language Index (RLI) |  |  |  |  |  |  |  |
| Expressive Language Index (ELI) |  |  |  |  |  |  |  |
| Lexical/Semantic Index (LSI) |  |  |  | 5 | - |  |  |
| Syntactic Index (SI) |  |  |  | 5 | 6 | - |  |
| Supralinguistic Index (SPI) |  |  |  | 4 | 5 | 5 | - |

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 $S E M$ for each index, where $S E_{\text {diff }}=\sqrt{\left(S E M_{1}\right)^{2}+\left(S E M_{2}\right)^{2}}$ and the $S E_{\text {diff }}$ is multiplied by 1.96 for $p<.05$. unlocking potential

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.
F. Garrow-Woolfolk has an MA in educational psychology from the University of Texas and in speech pathology from Northwestern University. She completed postgraduate in linguistics at Indiana University and has published numerous books and articles on reading, language, and multilingualism. For 6 years, Dr. Carrow-Woolfolk served as editor of the Journal of Speech and Hearing Disorders. Other accomplishments include founding the Harry Jersig Speech-Language-Hearing Center at Our Lady of the Lake University and creating its speech-language pathology master's program. She headed the Communication Disorders Program at the University of Texas and the Speech Pathology Program at Baylor College of Medicine. In addition, she directed speech pathology services at three hospitals in Houston. Dr. Carrow-Woolfolk has received numerous honors from the American Speech-Language-Hearing Association for her achievements and dedication to the field.

