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# Determining the Severity of a Language Disorder

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# **Severity Guidelines**

### **Individual Test Scores**

CELF-5 test scaled scores provide a measure of specific aspects of language form and content, depending on the test task and student's response. Test scaled scores are used to compare the student's performance to the typical performances of the sameage norm group. These scores are derived from the total raw scores for each test and are on a normalized score scale that has a mean of 10 and a standard deviation (SD) of 3. A scaled score of 10 describes the average of a given age group. Scores of 7 and 13 are 1 SD below and above the mean, respectively. About two-thirds of all students with typical language development earn scaled scores between 7 and 13 (scaled scores of 8–12), the range of average performance. Table 4.1 shows the relationship of CELF-5 scaled scores and percentile ranks to distances from the mean, expressed in SD units. Use the norms tables in Appendix C to convert the raw score for each test to a normalized scaled score.

Table 4.1 Distances From the Mean of Test Scaled Scores

| Scaled Score | Distance From Mean | Percentile Rank |  |
|--------------|--------------------|-----------------|--|
| 19           | +3 SD              | 99.9            |  |
| 16           | +2 SD              | 98              |  |
| 13           | +I SD              | 84              |  |
| 10           | Mean               | 50              |  |
| 7            | −1 SD              | 16              |  |
| 4            | –2 SD              | 2               |  |
| I            | −3 SD              | 0.1             |  |

Table 4.2 Guidelines to Describe Performance Using Scaled Scores

|  | Test Score<br>Scaled | Classification | Relationship to Mean |  |
|--|----------------------|----------------|----------------------|--|
|  | 13 and above         | Above average  | + 1 SD and above     |  |
|  | 8 to 12              | Average        | Within + or – I SD   |  |
|  | 7 and below          | Below average  | −1 SD and below      |  |

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## **Composite Scores**

The Core Language score and the Index scores are composite scores. Composite scores are standard scores based on the sum of various test scaled scores. Because composite scores reflect a student's abilities in a skill area (e.g., receptive language, language structure) across multiple tasks with a wide score range, you can have confidence in the precision of the score.

Different combinations of test scaled scores compose the:

Core Language score (CLS)

and the Index scores:

Receptive Language Index score (RLI)

Expressive Language Index score (ELI)

Language Content Index score (LCI)

Language Structure Index score (LSI)

Language Memory Index score (LMI)

One way to determine the severity of a language disorder is to examine the deviation of a student's scores from the mean of 100. Table 4.5 from the CELF®-5 Examiner's Manual presents descriptions of the severity of language disorders based on CELF-5 Core Language Score and Index Scores.

Scores within ISD of the mean (between 86 and 114) are considered average. Scores below -I SD indicate that the student is demonstrating below average to very low language abilities relative to age peers which may or may not significantly impact academic achievement and participation in classroom activities.

The criteria for identifying a student as having a language

disorder vary among school districts and treatment programs. Some agencies use I SD below the mean as the criterion to qualify a student for enrollment in an intervention program; others use 1.5 or 2 SD below the mean. Based on CELF-5 sensitivity and specificity values, the optimal cut score to achieve the best balance is -1.33 (standard score of 80). Using a standard score of 80 as a cut score yields sensitivity and specificity values of .97. Keep in mind that students who have language deficits may not obtain scores that qualify him or her for placement based on the program's criteria for eligibility. You'll need to plan how to address the student's needs within the framework established by your program.

Table 4.3 shows the relationship of standard scores and percentile ranks to distances from the mean, expressed in SD units.

Table 4.3 Distances From the Mean of Selected Standard Scores

| Table 1.5 Distances from the fical of Selected Standard Scores |                    |                 |  |  |  |
|--|--------------------|-----------------|--|--|--|
| Standard<br>Score  | Distance From Mean | Percentile Rank |  |  |  |
| 145  | +3 SD              | 99.9            |  |  |  |
| 130  | +2 SD              | 98              |  |  |  |
| 115  | +1 SD              | 84              |  |  |  |
| 100  | Mean               | 50              |  |  |  |
| 85   | −I SD              | 16              |  |  |  |
| 80   | −1.33 SD           | 9               |  |  |  |
| 77.5   | −1.5 SD            | 6.7             |  |  |  |
| 70   | –2 SD              | 2               |  |  |  |
| 55   | −3 SD              | 0.1             |  |  |  |

### Guidelines for Describing the Severity of a Language Disorder Using Standard Scores

| Core Language Score<br>and Index Scores | Classification              | Relationship to Mean  | Percentile Ranks   |
|---|-----------------------------|-----------------------|--------------------|
| II5 and above                           | Above average               | + I SD and above      | 84 and above       |
| 86 to 114                               | Average                     | Within + or -I SD     | 18 to 83           |
| 78 to 85                                | Marginal/Below average/Mild | Within -1 to -1.5 SD  | 7 to 17            |
| 71 to 77                                | Low range/Moderate          | Within - I.5 to -2 SD | 3 to 6             |
| 70 and below                            | Very low range/Severe       | - SD and below        | Less than 0.1 to 2 |

For more information about CELF-5, please visit CELF5Family.PearsonClinical.com or call 800.627.7271.









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