Language Assessment within the SLD Identification Framework
Elisabeth Wiig PhD
What is the referral question?
KTEA-3, WISC-V, CELF-5
A powerful trio for SLD Identification

KTEA-3
Academic
Listening Comprehension
Oral Expressions
Reading Comprehension
Written Expression

WISC-V
Cognitive
Verbal Comprehension
Fluid Reasoning
Visual-Spatial
Working Memory
Processing Speed

CELF-5
Language & Communication
Receptive/Expressive
Content/Structure
Listening/Reading
Pragmatics
ORS

CELF-5 METALINGUISTICS
Meta-Pragmatics & Meta-Semantics
Overview of Test Content
The Kaufman Test of Educational Achievement, Third Edition (KTEA–3 Comprehensive Form)

An individually administered measure of academic achievement for grades pre-kindergarten through 12 or ages 4 through 25 years.
<table>
<thead>
<tr>
<th>IDEIA Areas of Achievement</th>
<th>Corresponding KTEA-3 Subtests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Expression</td>
<td>Oral Expression</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>Listening Comprehension</td>
</tr>
<tr>
<td>Basic Reading Skills</td>
<td>Letter &amp; Word Recognition&lt;br&gt;Nonsense Word Decoding&lt;br&gt;Reading Composite&lt;br&gt;Decoding Composite</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>Reading Comprehension&lt;br&gt;Reading Understanding Composite</td>
</tr>
<tr>
<td>Reading Fluency Skills</td>
<td>Word Recognition Fluency&lt;br&gt;Decoding Fluency&lt;br&gt;Silent Reading Fluency&lt;br&gt;Reading Fluency Composite</td>
</tr>
<tr>
<td>Written Expression</td>
<td>Written Expression&lt;br&gt;Written Language Composite</td>
</tr>
<tr>
<td>Mathematics Calculation</td>
<td>Math Computation&lt;br&gt;Math Fluency</td>
</tr>
<tr>
<td>Mathematics Problem-Solving</td>
<td>Math Concepts &amp; Applications</td>
</tr>
<tr>
<td>DSM-V specific areas</td>
<td>Corresponding KTEA–3 subtests</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Impairment in reading</td>
<td></td>
</tr>
<tr>
<td>Word reading accuracy</td>
<td>Letter &amp; Word Recognition; Nonsense Word Decoding; Decoding Composite</td>
</tr>
<tr>
<td>Reading rate or fluency</td>
<td>Word Recognition Fluency; Decoding Fluency; Silent Reading Fluency; Reading Fluency Composite</td>
</tr>
<tr>
<td>Reading comprehension</td>
<td>Reading Comprehension; Reading Understanding Composite</td>
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<tr>
<td>Spelling accuracy</td>
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<td>Grammar and punctuation accuracy</td>
<td>Written Expression: “Structure,” “Word Form,” and “Punctuation” error analysis categories</td>
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<tr>
<td>Clarity or organization of written expression</td>
<td>Written Expression: Essay item</td>
</tr>
<tr>
<td>Number sense</td>
<td>Math Concepts &amp; Applications: “Number Concepts” error analysis category</td>
</tr>
<tr>
<td>Memorization of arithmetic facts</td>
<td>Math Fluency; Math Computation: “Fact or Computation” error analysis category</td>
</tr>
<tr>
<td>Accurate or fluent calculation</td>
<td>Math Computation &amp; Math Fluency</td>
</tr>
<tr>
<td>Accurate math reasoning</td>
<td>Math Concepts &amp; Applications</td>
</tr>
</tbody>
</table>
Primary Index Scales

Language Assessment Related Tests

**Verbal Comprehension**: Similarities and Vocabulary
**Working Memory**: Digit Span
Ancillary Index Scales

Quantitative Reasoning
  Figure Weights
  Arithmetic

Auditory Working Memory
  Digit Span
  Letter–Number Sequencing

Nonverbal
  Block Design
  Visual Puzzles
  Matrix Reasoning
  Figure Weights
  Picture Span
  Coding

General Ability
  Similarities
  Vocabulary
  Block Design
  Matrix Reasoning
  Figure Weights

Cognitive Proficiency
  Digit Span
  Picture Span
  Coding
  Symbol Search

(New Ancillary Indexes to WISC-V)
Complementary Scales and Subtests
What is represented by the Verbal Comprehension Index?

Ability to access and apply acquired word knowledge.

This involves verbal concept formation, reasoning and expression.
• Battery of tests to assess receptive and expressive language
• Age range: 5:0 through 21:11
• Administration time:
  – 30-45 minutes for the Core Language Score
• Scores
  – Norm referenced (most of the battery)
  – Some criterion-referenced tests
<table>
<thead>
<tr>
<th>Language Content</th>
<th>Language Structure</th>
<th>Oral-Written Language Connection</th>
<th>Pragmatics</th>
<th>Language Memory</th>
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<tbody>
<tr>
<td>Linguistic Concepts*</td>
<td>Sentence Comprehension</td>
<td>Understanding Spoken Paragraphs</td>
<td>Pragmatics Profile</td>
<td>Linguistic Concepts*</td>
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<tr>
<td><strong>Word Classes</strong>*</td>
<td>Word Structure</td>
<td><strong>Reading Comprehension</strong>*</td>
<td>Pragmatic Activities Checklist</td>
<td>Following Directions*</td>
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<tr>
<td>Following Directions*</td>
<td><strong>Formulated Sentences</strong>*</td>
<td>Formulated Sentences</td>
<td></td>
<td>Recalling Sentences*</td>
</tr>
<tr>
<td>Semantic Relationships</td>
<td>Recalling Sentences*</td>
<td><strong>Structured Writing</strong>*</td>
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<tr>
<td><strong>Word Definitions</strong>*</td>
<td>Sentence Assembly</td>
<td>Observational Rating Scales: Listening, Speaking, Reading, Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding Spoken Paragraphs*</td>
<td></td>
<td></td>
<td></td>
<td>*KTEA-3 overlap *WISC-V overlap</td>
</tr>
</tbody>
</table>
Assessment Process

\textbf{Major Diagnostic Questions}

1. Is there a language disorder?

2. What is the nature of the disorder?
   - Receptive - Expressive
   - Language Content - Structure
   - Language and Memory

3. What are the language strengths and weaknesses?

4. What about Language in Literacy and Communication Performance in Context (home, school, etc.)?

1. Core Language Score

2. Language Index Scores
   - RLI v. ELI scores
   - LCI v. LSI scores
   - LMII

3. Profiling – Done with Test Score Levels, Variation

4. Reading & Writing Tests, Pragmatics Profile & Checklist, CELF-5 ORS
If a language disorder is identified, what do I need to know to plan for intervention?

Identify the nature of the disorder by answering specific questions, performing error response analyses, and administering selected tests.

Are there significant differences in language comprehension and oral expression?

Compare the CELF-5 Expressive and Receptive Language index scores.
Assessment Questions

**Does a language disorder affect classroom performance?**

Evaluate language and communication in context with the Observational Rating Scale (ORS) and other authentic and descriptive measures to provide information about classroom accommodations, adaptations, and enhancements.

**If a student does not respond to a variety of classroom interventions, is his or her performance due to language skill deficits?**

Administer other tests appropriate to the student’s age to answer specific referral questions.
Assessment Process

Are there significant differences in knowledge of content (semantics) and structure (morphology and syntax)?

Compare the CELF-5 Language Content and Language Structure Index scores.

Are there specific weaknesses in the area of morphology, syntax, or semantics?

Consider the results across age-level appropriate individual tests.

Are weaknesses related to language memory?

Compare the CELF-5 Receptive Language and Language and Memory Index Scores (ages 9-21).

Follow-up with cognitive testing of working memory using WISC-V.
A Clinical Perspective

Are weaknesses related to retrieval and processing speed?

Follow-up with Rapid Automatic Naming using WISC-V.
Follow-up with Letter Naming Facility and Fluency measures using KTEA-3.

How does the disorder affect reading and written language?

Consider the results from the CELF-5 Reading Comprehension and Structured Writing tests.
Follow-up with academic testing of reading and writing using KTEA-3.

Does the disorder affect social interactions?

Consider results from the Pragmatics Profile, Pragmatics Activities and ORS tests.

Based on CELF-5 results and additional assessment information collected (KTEA-3; WISC-V), priorities can be set for what to emphasize in addressing the student’s needs.
An RTI Perspective

Are there significant differences in language content and language structure?

*Compare the Language Content and Language Structure Index scores.*

*Of these, language content (semantics) is most readily dealt with in the classroom.*

Are weaknesses related to language and memory?

*Consult the Language & Memory Index score for ages 9-21.*

*Classroom adaptations would incorporate controlling length and complexity.*
How does the disorder affect reading and written language?

Consult the Understanding Written Paragraphs and Structured Writing scores and ORS Reading and Writing ratings.
Follow-up with reading and written language tests using KTEA-3.

Does the disorder affect social interactions?

Consult the Pragmatics Profile scores and Pragmatics Activities ratings.
Consult the ORS Listening and Speaking ratings.

Based on CELF-5 results and additional assessment information collected, consider what are the best ways to address the student’s needs (classroom adaptations, classroom interventions, focused language intervention, other).
<table>
<thead>
<tr>
<th>DSM-5 Areas (315.39)</th>
<th>DSM-V specific areas of impairment</th>
<th>Corresponding CELF-5 subtests</th>
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<tbody>
<tr>
<td><strong>Impairments in Vocabulary Knowledge and Use</strong></td>
<td>Vocabulary and Word definitions</td>
<td>Word Definitions (WD) Linguistic Concepts (LC) Word Classes (WC) Semantic Relationships (SR)</td>
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<td></td>
<td>Following Directions</td>
<td>Following Directions</td>
</tr>
<tr>
<td></td>
<td>Listening comprehension</td>
<td>Understanding Spoken Paragraphs (USP)</td>
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<tr>
<td><strong>Impairments in Word and Sentence Structure</strong></td>
<td>Morphology</td>
<td>Word Structure (WS)</td>
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<td></td>
<td>Syntax</td>
<td>Sentence Comprehension (SC) Recalling Sentences (RC) Sentence Assembly (SA)</td>
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<td></td>
<td>Clarity or organization of oral expression</td>
<td>Formulated Sentences (FS)</td>
</tr>
<tr>
<td><strong>Impairment in Discourse and Conversation</strong></td>
<td>Pragmatics (299.0)*</td>
<td>Pragmatics Profile (PP) Pragmatics Activities (PA)</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>Understanding Written Paragraphs</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>Structured Writing: “Structure,” “Word Form,” and “Punctuation” error analysis categories</td>
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# CELF-5 Scores and IDEIA

<table>
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<tr>
<td>Oral Expression</td>
<td>Expressive Language Index (ELI) ORS Speaking</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>Receptive Language Index (RLI) Understanding Spoken Paragraphs (USP) ORS Listening</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>Reading Comprehension (RC) ORS Reading</td>
</tr>
<tr>
<td>Written Expression</td>
<td>Structured Writing (SW) ORS Writing</td>
</tr>
</tbody>
</table>
Case Study

Do you know a Kim?
Case Study

Kim is a 9-year old girl with reading and writing problems and failing grades in Language Arts and Science.
A step-wise approach to assessment

Are deficits related to cognitive ability?

**WISC-V:**

- Verbal Comprehension: 102
- Processing Speed: 84
A step-wise approach to assessment

*Are reading difficulties related to phonological skills?*

*KTEA-3: Phonological Processing  94*

Average performance, paired with Patterns of Strengths and Weaknesses (PSW) analysis available in the WISC-V and KTEA-3 report, was not consistent with a phonologically-based reading disorder.
A step-wise approach to assessment

– Are retrieval skills contributing to Kim’s difficulties?

– *KTEA-3* Rapid Automatic Naming 81
A step-wise approach to assessment

Due to Kim’s history of spelling and written composition, additional testing was conducted on the WIAT-III: Written Expression. The score was 78.

Essay Composition showed a specific deficit in grammar and mechanics. The PSW analysis between the WISC-V and WIAT-III report, signified a pattern of scores consistent with a learning disability profile.
A step-wise approach to assessment

Due to the pattern of Kim’s difficulties on the WIAT-III, are language deficits contributing to her difficulties in the classroom?
Case Study Summary

Index Scores

Core Language 84
Receptive Language 90
Expressive Language 75
Language Content 95
Language & Memory 80

Difficulties with language structure, especially formulation of compound and complex structures.
# Case Study Summary

## Selected Test Scores

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
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<tr>
<td>Recalling Sentences</td>
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<tr>
<td>Following Directions</td>
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<tr>
<td>Formulated Sentences</td>
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<td>Sentence Assembly</td>
<td>5</td>
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<tr>
<td>Pragmatics Profile</td>
<td>7</td>
</tr>
</tbody>
</table>

## Observational Rating Scale (ORS)

- **Listening difficulties:** Almost never/sometimes
- **Speaking difficulties:** Often/almost always
A step-wise approach to assessment

*Kim exhibits basic communication skills within normal limits on CELF-5. What else could be affecting performance in the classroom?*

- Students with language disorders may have adequate linguistic knowledge and perform in the low-average range on CELF-5.
- They may not have crossed the bridge to metalinguistic awareness and abilities that are separate from linguistic skills.
Test Objective

Evaluates metalinguistic awareness as demonstrated by being able to *talk about, analyze, and think about language* independently of the concrete meanings of words. In other words, the student must make a momentary shift from the content or meaning to the form or linguistic expression (Edwards & Kirkpatrick, 1999).

**An Illustration**

Think of the many meanings of the word “BRIDGE.” Now identify which interpretation gives evidence of metalinguistic ability.
Some metalinguistic skills, assessed by CELF-5 Metalinguistics, are known to have an impact on academic performance. They are:

- the ability to make and understand inferences
- using and understanding multiple meanings words
- using figurative language and understanding humor and sarcasm
- formulating spoken or written sentences that meet cultural expectations for conveying messages or expressing emotions or opinions
Test Overview

• **CELF-5 Metalinguistics** is used to assess metalinguistic skills with five stand-alone tests for ages 9:00-21:11
  • Metalinguistics Profile
  • Making Inferences
  • Conversation Skills
  • Multiple Meanings
  • Figurative Language

• **Provides Total Metalinguistic, Meta-Pragmatics and Meta-Semantics Index scores.**

• Designed for students who have adequate linguistic knowledge, but lack the metalinguistic skills needed for literacy in Grades 3 and up.

• Ideal for students with subtle language disorders or students on the autism spectrum.
<table>
<thead>
<tr>
<th>Index</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Metalinguistic Index</td>
<td>72</td>
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<tr>
<td>Meta-Pragmatics Index</td>
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<tr>
<td>Meta-Semantics Index</td>
<td>73</td>
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<tr>
<td>Metalinguistic Profile</td>
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<tr>
<td>Making Inferences</td>
<td>9</td>
</tr>
<tr>
<td>Conversation Skills</td>
<td>5</td>
</tr>
<tr>
<td>Multiple Meanings</td>
<td>6</td>
</tr>
<tr>
<td>Figurative Language</td>
<td>4</td>
</tr>
<tr>
<td>CELF-5 Core Language Index</td>
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</tr>
<tr>
<td>Receptive Language Index</td>
<td>90</td>
</tr>
<tr>
<td>Expressive Language Index</td>
<td>75</td>
</tr>
<tr>
<td>Language Content Index</td>
<td>95</td>
</tr>
<tr>
<td>Language &amp; Memory Index</td>
<td>80</td>
</tr>
<tr>
<td>WIAT-III Written Expression</td>
<td>78</td>
</tr>
</tbody>
</table>
(1) To develop knowledge and expressive use of compound and complex sentences for speaking, written language expression, and editing and revising.

(2) To develop conversation and narrative writing skills, as they apply to the descriptive, expository, and emerging argumentative genres.

(3) To develop awareness of multiple meanings and ambiguities in spoken and written sentences and text.

(4) To develop knowledge of idiomatic and figurative language use in spoken and written expression and awareness of humor and sarcasm.
What are the thought processes for each of these students?

The clinician as detective.
Clues, Teams, Evidence, Integration, Action!
Suggested Assessments
Intervention Resource References


Questions?

Thank you for your participation!

We will archive this session in just a few days, watch your email for details and the link!

Stay tuned for more sessions in the Cause and Effect series.