

General and Specific Manifestations of Cognitive Ability Weaknesses in SLD Identification

A specific learning disability (SLD) involves the presence of a cognitive processing weakness in one or more areas that is empirically or logically related to a documented academic weakness. While the primary form of data used to document cognitive ability weaknesses is standardized test scores, establishing ecological validity for a cognitive weakness involves the organization and analysis of additional data. For example, additional data that may be evaluated to support the presence of a cognitive ability weakness include information from behavior rating scales, parent and teacher interviews, classroom observations, prior evaluations, work sample analysis, and/or interviews with current or past teachers, counselors, and other paraprofessionals who have worked with the student. Below is a list of general and specific ways in which cognitive ability weaknesses manifest in real-world performance, specifically academic performance.

Directions: Complete the checklist below for any area identified as a cognitive ability weakness via standardized testing. Use the following codes next to a check-marked item to denote documentation source (P) = Parent; (T) = Teacher; (O) = Observations; (R) = Records review.¹ More than one code may be used for a check-marked item.

Fluid Reasoning (Gf) (Check All that Apply):

Refers to a type of thinking that an individual may use when faced with a relatively new task that cannot be performed automatically. This type of thinking includes such things as forming and recognizing concepts (e.g., how are a dog, cat, and cow alike?), identifying and perceiving relationships (e.g., sun is to morning as moon is to *night*), drawing inferences (e.g., after reading a story, answering the question, “What will John do next?”), and reorganizing or transforming information (e.g., selecting one of several pictures to complete a puzzle). Overall, this ability can be thought of as a *problem-solving* type of intelligence. Problem-solving is important for reading comprehension (e.g., making inferences from text), math (e.g., figuring out how to set up a math problem by using information provided in a word problem), and writing (e.g., writing a persuasive essay).

General Manifestations: Check the area(s) in which the individual has difficulty

- | | |
|---|--|
| <input type="checkbox"/> Higher-level thinking and reasoning | <input type="checkbox"/> Deriving solutions for novel problems |
| <input type="checkbox"/> Transferring or generalizing learning | <input type="checkbox"/> Extending knowledge through critical thinking |
| <input type="checkbox"/> Perceiving and applying underlying rules and processes to solve problems | |

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- | | |
|---|---|
| <input type="checkbox"/> Drawing inferences from text | <input type="checkbox"/> Abstracting main ideas |
| <input type="checkbox"/> Making predictions | |

Math Difficulties

- ☐ Reasoning with quantitative information (word problems)
- ☐ Internalizing procedures and processes used to solve problems
- ☐ Apprehending relationships between numbers

Writing Difficulties

- ☐ Essay writing and generalizing concepts
- ☐ Developing a theme
- ☐ Comparing and contrasting ideas

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Crystallized Intelligence (Gc) (Check All that Apply):

Refers to an individual's knowledge base (or general fund of information) that has built up over time, beginning in infancy. It is like your own personal library or everything you know. Crystallized intelligence involves knowledge of one's culture (e.g., who is the President of the United States?) as well as verbal- or language-based knowledge that has been developed during general life experiences, and formal schooling (e.g., understanding words and their meaning; understanding street signs, knowledge of current events and the history of the United States). Having well developed or good Crystallized Intelligence means that one understands and uses language well, has an average or better vocabulary, has good listening skills, and is able to use language well via verbal expression.

General Manifestations: Check the area(s) in which the individual has difficulty

- | | |
|---|---|
| <input type="checkbox"/> Vocabulary acquisition | <input type="checkbox"/> Using prior knowledge to support learning |
| <input type="checkbox"/> Knowledge acquisition | <input type="checkbox"/> Fact-based/informational questions |
| <input type="checkbox"/> Finding the right words to use/say | <input type="checkbox"/> Comprehending language or understanding what others are saying |

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- ☐ Decoding (e.g., word student is attempting to decode is not in his/her vocabulary)
- ☐ Comprehending (e.g., poor background knowledge about information contained in text)

Math Difficulties

- ☐ Understanding math concepts and the "vocabulary of math"

Writing Difficulties

- ☐ Grammar (syntax)
- ☐ Bland writing with limited descriptors
- ☐ Verbose writing with limited descriptors

- ☐ Inappropriate word usage

Language Difficulties

- ☐ Understanding class lessons
- ☐ Expressive language – “poverty of thought”

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Long-Term Storage and Retrieval (Glr) (Check All that Apply):

Refers to an individual’s ability to take in and store a variety of information (e.g., ideas, names, concepts) in one’s mind and then retrieve it quickly and easily at a later time by using association (e.g., remembering the names of one’s teachers and classmates). This ability does not represent *what* is stored in long-term memory or what you know. Rather, it represents the *process* of storing information, which is related to learning efficiency, as well as retrieving information. When someone says, “It’s on the tip of my tongue,” they are having a hard time retrieving something that they know. Sometimes children have difficulty “finding” information that they know and, therefore, cannot come up with a word or phrase that they learned.

General Manifestations: Check the area(s) in which the individual has difficulty

- | | |
|---|---|
| <input type="checkbox"/> Learning new concepts | <input type="checkbox"/> Rapid retrieval of information |
| <input type="checkbox"/> Paired learning (visual-auditory) | <input type="checkbox"/> Learning information quickly |
| <input type="checkbox"/> Recalling specific information (words, facts) | <input type="checkbox"/> Generating ideas rapidly |
| <input type="checkbox"/> Performing consistently across different task formats (e.g. recognition versus recall formats) | <input type="checkbox"/> Retrieving or recalling information by using association |

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- ☐ Accessing background knowledge to support new learning while reading
- ☐ Slow to access phonological representations during decoding
- ☐ Retelling or paraphrasing what one has read

Math Difficulties

- ☐ Memorizing math facts
- ☐ Recalling math facts and procedures

Writing Difficulties

- ☐ Accessing words to use during essay writing
- ☐ Idea generation/production
- ☐ Specific writing tasks (compare and contrast; persuasive writing)

- ☐ Note-taking

Language Difficulties

- ☐ Expressive-circumlocutions speech fillers, “interrupted” thought, pauses
- ☐ Receptive – making connections throughout oral presentations (e.g. class lecture)

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Short-Term Memory (Gsm) (Check All that Apply):

Refers to an individual’s ability to hold information in one’s mind and then use it within a few seconds. The most common example of short-term memory is holding a phone number in one’s mind long enough to dial it. Working memory is also part of the short-term memory system and involves manipulating or transforming information and using it in some way (e.g., saying the months of the year backwards).

General Manifestations: Check the area(s) in which the individual has difficulty

- ☐ Following multistep oral and written instructions
- ☐ Remembering information long enough to apply it
- ☐ Remembering the sequence of information
- ☐ Rote memorization
- ☐ Maintaining one’s place in a math problem or train of thought while writing

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- ☐ Reading comprehension (i.e. understanding what is read)
- ☐ Decoding multisyllabic words
- ☐ Orally retelling or paraphrasing what one has read

Math Difficulties

- ☐ Rote memorization of facts
- ☐ Remembering mathematical procedures
- ☐ Multistep problems and regrouping
- ☐ Extracting information to be used in word problems

Writing Difficulties

- ☐ Spelling multisyllabic words
- ☐ Note-taking
- ☐ Redundancy in writing (word and conceptual levels)
- ☐ Identifying main idea of a story

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Visual Processing (Gv) (Check All that Apply):

Refers to an individual's ability to think about visual patterns (e.g., what is the shortest route from your house to school?) and visual images (e.g., what would this shape look like if I turned it upside down?). This type of ability also involves generating, perceiving, and analyzing visual patterns and visual information (e.g., "which three shapes go together to make this shape?"). Additional examples of this type of ability include putting puzzles together, completing a maze (such as the ones often seen on children's menus in restaurants), and interpreting a graph or chart.

General Manifestations: Check the area(s) in which the individual has difficulty

- ☐ Recognizing patterns
- ☐ Reading maps, graphs, charts
- ☐ Attending to fine visual details
- ☐ Recalling visual information
- ☐ Appreciation of spatial characteristics of objects (e.g. size, length)
- ☐ Recognition of spatial orientation of objects

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- ☐ Orthographic coding (using visual features of letters to decode)
- ☐ Sight-word acquisition
- ☐ Using charts and graphs within a text in conjunction with reading
- ☐ Comprehension of text involving spatial concepts (e.g. social studies text describing physical boundaries, movement of troops along a specific route)

Math Difficulties

- ☐ Number alignment during computations
- ☐ Reading and interpreting graphs, tables, and charts

Writing Difficulties

- ☐ Spelling sight words
- ☐ Inconsistent size, spacing, position, and slant of letters
- ☐ Spatial planning during writing tasks (e.g. no attention to margins, words that overhand a line)

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Auditory Processing (Ga) (Check All that Apply):

Refers to the ability to perceive, analyze, and synthesize a variety of auditory information (e.g., sounds). Examples of auditory processing include listening to words with missing letters and saying the correct word (e.g., hearing “olipop” and saying “lollipop”), listening to piano music and identifying the key in which the piece is being played (e.g., C sharp). Phonetic coding or phonological awareness/processing is very important during the elementary school years. Children who have difficulty with processing auditory information may have problems with learning letter-to-sound correspondence (e.g., listening to the sound “ba” and identifying it as the letter “b” when given a list of letters to choose from), reading nonsense words (e.g., bab), and sounding out words because of difficulty segmenting, analyzing, and synthesizing speech sounds.

General Manifestations: Check the area(s) in which the individual has difficulty

- ☐ Hearing information presented orally, initially processing oral information
- ☐ Paying attention especially in the presence of background noise
- ☐ Discerning the direction from which auditory information is coming
- ☐ Discriminating between simple sounds
- ☐ Foreign-language acquisition

Specific Manifestations: Check the area(s) in which the individual has difficulty

Reading Difficulties

- ☐ Acquiring phonics skills
- ☐ Sounding out words
- ☐ Using phonetic strategies

Math Difficulties

- ☐ Reading word problems

Writing Difficulties

- ☐ Spelling
- ☐ Poor quality of writing
- ☐ Note-taking

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Processing Speed (Gs) (Check All that Apply):

Refers to an individual's ability to perform simple clerical-type tasks quickly, especially when under pressure to maintain attention and concentration. It can also be thought of as how quickly one can think or how quickly one can take simple tests that require simple decisions (e.g., math calculation fluency).

General Manifestations: Check the area(s) in which the individual has difficulty

- ☐ Efficient processing of information
- ☐ Quickly perceiving relationships (similarities and differences between stimuli or information)
- ☐ Working within time parameters
- ☐ Completing simple, rote tasks quickly

Specific Manifestations: Check the area(s) in which the individual has difficulty***Reading Difficulties***

- ☐ Slow reading speed, which interferes with comprehension
- ☐ Need to reread for understanding

Math Difficulties

- ☐ Automatic computations
- ☐ Computational speed is slow despite accuracy
- ☐ Slow speed can result in reduced accuracy due to memory decay

Writing Difficulties

- ☐ Limited output due to time factors
- ☐ Labored process results in reduced motivation to produce

Language Difficulties

- ☐ Cannot retrieve information quickly – slow, disrupted speech; cannot get out thoughts quickly enough
- ☐ Is slow to process incoming information, puts demands on memory store that can result in information overload and loss of meaning

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Determination of the severity of educational impact (Note: Decision is typically made by a multidisciplinary team).

- ☐ **Minimal.** Difficulty in one or two academic areas but the student *is able to function well* when provided with support services (e.g., accommodations).
- ☐ **Moderate.** Marked difficulties in one or more academic areas and the student is not likely to become proficient without some *intervals of specialized instruction* (e.g., *Tier II small group*) throughout schooling. *Support services may be needed* across settings in order for activities involving the academic skills to be performed effectively.
- ☐ **Substantial.** Deficits in one or more academic areas and the student is not likely to acquire and develop those skills without individualized and specialized instruction (e.g., Tier III, special education) throughout schooling. Even with support services, these students may not be able to perform academic skills effectively.

ⁱ A general or specific manifestation that is documented via record review must be done with records that reflect current performance (e.g., report cards, test scores, work samples from the student's current grade placement). Records that document functioning prior to the current school year can be used to document longstanding impact but do not support a current, functional manifestation.