

# Linking CHC to Intervention

Cognitive Ability	Implications for Academics	Related Achievement Normative Weaknesses	Possible Interventions	Possible Accommodations
<p><b>Crystallized Intelligence (Gc)</b>            A person's level of acquired knowledge, including main knowledge obtained through life experiences, school and work.</p> <p>Gc Cluster Average: _____</p> <p><input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Highly predictive of academic success. Strong &amp; consistent relationship to reading, writing, and math throughout school years: learning vocabulary, answering factual questions, comprehending oral/written language.</p>	<p style="text-align: right;">Standard Score</p> <p><input type="checkbox"/> Reading Comprehension _____</p> <p><input type="checkbox"/> Math Calculations _____</p> <p><input type="checkbox"/> Math Reasoning _____</p> <p><input type="checkbox"/> Written Expression _____</p> <p><input type="checkbox"/> Oral Expression _____</p> <p><input type="checkbox"/> Listening Comprehension _____</p>	<p>Relate new information to acquired knowledge; assess prior knowledge before introducing new topics, concepts; pre-teach relevant vocabulary or background knowledge; provide specific vocabulary instruction such as the meaning of common prefixes, suffixes, and root words; incorporate interests and prior knowledge areas into instructional activities; when presenting directions and discussing concepts, use vocabulary that is understood by the individual.</p>	<p>Provide preferential seating to enhance monitoring of comprehension. Check with the student to insure comprehension of task demands. Provide oral communication that is individualized clear, concise language vocabulary that is comprehensible. Provide resources from which a student can draw information for discussions or written expression. Insure that test items do not include vocabulary which has not been taught or is not familiar to the student.</p>
<p><b>Auditory Processing (Ga)</b>            The ability to perceive, analyze, &amp; synthesize patterns among auditory stimuli (sounds) and to discriminate subtle nuances in patterns of sound and speech when presented under distortion conditions.</p> <p>Ga Cluster Average: _____</p> <p>Normative:  <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Significant relationship to reading &amp; writing, especially during early stages of skill acquisition: acquiring phonics, sequencing sounds, listening, learning foreign language, musical skill. A weakness in phonological processing is a common factor among individuals with early reading problems.</p>	<p style="text-align: right;">Standard Score</p> <p><input type="checkbox"/> Basic Reading _____</p> <p><input type="checkbox"/> Written Expression _____</p> <p><input type="checkbox"/> Listening Comprehension _____</p>	<p>Provide phonological awareness activities (e.g., rhyming, alliteration, imitation, songs); provide specific training in sound discrimination, blending, and segmentation; emphasize sound-symbol associations in teaching decoding and spelling; provide study guides for listening activities; provide assistance with note taking; accompany oral information with visual materials.</p>	<p>Check for comprehension after group directions are given. Provide a well managed classroom with control of extraneous activities that create auditory distractions and competing background noise. Provide preferential seating that supports monitoring of student comprehension. Provide a peer assistant or buddy to provide information when the student did not understand an oral communication.</p>
<p><b>Short-Term,Memory (Gsm)</b>            The ability to apprehend and hold information in one's mind and then use it within a few seconds; includes working memory (ability to attend to, process, &amp; respond to information).</p> <p>Gsm Cluster Average: _____</p> <p>Normative:  <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Significant relationship to reading, writing, &amp; math (Working Memory in particular): attending/following directions, recalling sequences, memorizing factual information, listening &amp; comprehending, taking notes.</p>	<p style="text-align: right;">Standard Score</p> <p><input type="checkbox"/> Basic Reading _____</p> <p><input type="checkbox"/> Reading Comprehension _____</p> <p><input type="checkbox"/> Math Calculations _____</p> <p><input type="checkbox"/> Math Reasoning _____</p> <p><input type="checkbox"/> Written Expression _____</p> <p><input type="checkbox"/> Oral Expression _____</p> <p><input type="checkbox"/> Listening Comprehension _____</p>	<p>Keep oral directions short and simple; ensure directions are understood; have student or paraphrase directions; provide compensatory aids (e.g., write directions, procedures, and assignments on board or paper), provide lecture notes or arrange for peer-shared notes, provide study guide to be filled out during pauses in presentation; provide over-learning, review and repetition; teach memory strategies (e.g., chunking, verbal rehearsal, visual imagery)</p>	<p>Seat the student in a location away from distractions in order to optimize attention. Insure that you have the student's attention before stating a direction. Provide visual guides during oral presentations. Encourage the student to ask for directions or information to be repeated if not understood or remembered. Provide extra time to copy information, provide information already in copied form or reduce the demands of copying on tasks.</p>

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<p><b>Long-Term Retrieval (Glr)</b> Ability to take &amp; store a variety of information (ideas, names, concepts) in one's mind, then later retrieve it quickly and easily using association.</p> <p><b>Glr Cluster Average:</b> _____ <b>Normative:</b> <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Significant relationship with reading, writing, &amp; math, especially during early stages of skill acquisition; basic skill acquisition; organizing for retrieval, strategies for recall, learning &amp; retrieving information.</p>	<p>Standard Score</p> <p><input type="checkbox"/> Basic Reading _____</p> <p><input type="checkbox"/> Reading Fluency _____</p> <p><input type="checkbox"/> Math Calculations _____</p> <p><input type="checkbox"/> Written Expression _____</p> <p><input type="checkbox"/> Oral Expression _____</p>	<p>Provide over-learning, review, and repetition; provide immediate feedback; provide a list of steps that will help organize behavior and facilitate recall; teach memory aids such as verbal mediation or rehearsal, and mnemonic strategies; provide multi-sensory learning; use visual, kinesthetic, vocal, and auditory channels as appropriate; provide context and meaning-based instruction; limit the number of new facts, words, concepts presented in one session.</p>	<p>Limit the amount of information to be learned during an instructional session. Provide reference sheets, a calculator during math computation, Employ test formats that require recognition in favor of test formats that require recall. Emphasize concepts understood instead of memory for rote information in grading rubrics. Provide source of external memory. Check to insure that the student has retained sufficient information to work independently.</p>
<p><b>Visual Processing (Gv)</b> The ability to think about &amp; generate, perceive, analyze, synthesize, store, retrieve, manipulate, transform, and think with visual patterns &amp; visual stimuli.</p> <p><b>Gv Cluster Average:</b> _____ <b>Normative:</b> <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>No significant relationship to academics as measured by current IQ tests. Some relationship noted to higher level math: using patterns &amp; designs, sensing spatial orientation &amp; boundaries, noting visual detail.</p>	<p>Standard Score</p> <p><input type="checkbox"/> Basic Reading _____</p> <p><input type="checkbox"/> Math Calculations _____</p> <p><input type="checkbox"/> Math Reasoning _____</p>	<p>Provide activities with manipulatives; provide copying, tracing, drawing activities; provide activities involving construction and design; verbally describe graphics and visually-based concepts; provide support for tasks requiring spatial organization.</p>	<p>Reduce extraneous visual stimuli on a page. Provide spatial and sequential guides. Provide visual markers to indicate starting location and organization. Improve rate of task completion. Reduce expectations on tasks that require spatial organization such as art projects. Consider grading on skills gained rather than in comparison to peers.</p>
<p><b>Fluid Reasoning (Gf)</b> The type of thinking an individual may use when faced with a relatively new task that cannot be performed automatically; a problem solving type of intelligence.</p> <p><b>Gf Cluster Average:</b> _____ <b>Normative:</b> <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Significant relationship to higher level skills in reading, writing, &amp; math: problem solving, drawing inferences, mental flexibility, transferring &amp; generalizing, thinking conceptually.</p>	<p>Standard Score</p> <p><input type="checkbox"/> Reading Comprehension _____</p> <p><input type="checkbox"/> Math Reasoning _____</p> <p><input type="checkbox"/> Written Expression _____</p>	<p>Teach problem-solving strategies; provide over-learning, repetition, and review of concepts; use real objects and manipulatives to develop concepts; teach strategies to increase understanding and retention of concepts (e.g., self talk, lists of procedures or steps); encourage creativity with solution; teach problem-solving techniques in the contexts in which they are most likely to be applied.</p>	<p>Monitor for understanding and provide assistance in a timely manner and functioning throughout a task and particularly when there are changes in task demands. Seat the student next to a peer helper who can provide assistance. Weight grades in favor of concrete information and skills acquired.</p>
<p><b>Processing Speed (Gs)</b> The ability to fluently and automatically perform cognitive tasks, especially when under pressure to maintain focused attention and concentration.</p> <p><b>Gs Cluster Average:</b> _____ <b>Normative:</b> <input type="checkbox"/> Strength <input type="checkbox"/> Weakness</p>	<p>Significant relationship to reading, writing, &amp; math especially during early stages of learning: completing assignments on time, processing information quickly, taking timed tests, copying from board.</p>	<p>Standard Score</p> <p><input type="checkbox"/> Basic Reading _____</p> <p><input type="checkbox"/> Reading Fluency _____</p> <p><input type="checkbox"/> Math Calculations _____</p> <p><input type="checkbox"/> Written Expression _____</p>	<p>Provide more time to complete assignments; reduce quantity of work in favor of quality; limit or structure copying activities; provide activities to increase rate and fluency (e.g., flash cards, speed drills, educational software).</p>	<p>In grading, emphasize accuracy and quality of items completed on an assignment. Provide oral discussions. Consider individualizing test taking. Provide lecture notes, a formatted script of notes in which only key words need to be added, extra time to read a text.</p>