Student: ID# Date of FIE:

Linking *CHC to Intervention Tool

Cognitive Ability Factor	Related Achievement Normative Weaknesses	Relationship to Academic Learning	Recommended Instructional Interventions	Recommended Accommodations
Comprehension-Knowledge (*Gc*) is a person's level of acquired knowledge, including domain knowledge obtained through life experiences, school and work. *Gc* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85 -115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading _____ ☐ Reading Comp. _____ ☐ Math Calculations _____ ☐ Math Problem Solving _____ ☐ Written Expression _____ ☐ Oral Expression _____ ☐ Listening Comp. _____ (Check Normative Weakness <85)	◆*Gc* has a strong and consistent relationship to reading, writing, and math, such as learning vocabulary, answering factual questions, and comprehending oral/written language, all of which are highly predictive of academic success.	◆Create a language and experience rich environment. ◆Relate new information to acquired knowledge. ◆Assess prior knowledge before introducing new topics or concepts. ◆Provide frequent exposure and practice to words. ◆Pre-teach relevant vocabulary/background information. ◆Develop word consciousness, the awareness of and interest in words and their meanings. ◆Provide explicit vocabulary instruction such as the meaning of common prefixes, suffixes, and root words. ◆Incorporate interests and prior knowledge experiences into instructional activities. ◆Provide clear and concise language when presenting concepts. ◆Check for understanding to ensure comprehension. ◆Other…	◆Provide resources to help students participate in class discussion. ◆Provide prompts to enhance written expression. ◆Provide preferential seating to enhance monitoring of comprehension. ◆Other…
Long-Term Retrieval (*Glr*) is the ability to take and store a variety of information (ideas, names, concepts) in one's mind, then later retrieve it quickly and easily using association. *Glr* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading (Naming Facility) _____ ☐ Reading Fluency (Naming Facility) _____ ☐ Written Expression (Naming Facility) _____ ☐ Math Calculations (Naming Facility) _____ ☐ Oral Expression _____ (Check Normative Weakness <85)	◆*Glr* has a significant relationship with reading and writing especially during early stages of skill acquisition, such as organizing for retrieval, strategies for recall, and learning and retrieving information.	◆Teach memory aids such as verbal mediation or rehearsal and mnemonic strategies. ◆Provide over-learning through review and repetition. ◆Provide a list of steps that will help organize learning behavior and facilitate recall. ◆Provide multisensory learning using visual, kinesthetic, vocal, and auditory channels. ◆Emphasize concept mastery understood instead of rote memory for rote information in grading rubrics. ◆Check to ensure that the student has retained sufficient information for independent work. ◆Provide immediate feedback. ◆Other…	◆Limit the amount of information to be learned during an instructional session. ◆Provide reference sheets, a calculator during math computation. ◆Use graphic organizers to reinforce associations between concepts. ◆Other…
Short-Term Working Memory (*Gwm*) is 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, and respond to information). *Gwm* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading _____ ☐ Reading Comp. _____ ☐ Math Calculations _____ ☐ Math Problem Solving _____ ☐ Written Expression _____ ☐ Oral Expression _____ ☐ Listening Comp. _____ (Check Normative Weakness <85)	◆*Gsm* has a significant relationship to reading, writing, and math (working memory in particular), such as attending/following directions, recalling sequences, memorizing actual information, listening and comprehending, and taking notes.	◆Teach strategies to increase understanding and retention of concepts such as self-talk and creating lists of procedures or steps. ◆Teach memory strategies such as chunking, verbal rehearsal, and visual imagery. ◆Gain the student's attention before stating a direction. ◆Encourage asking for directions or information to be repeated if not understood or remembered. ◆Keep oral directions short and simple. ◆Have the student repeat or paraphrase directions. ◆Provide visual aids such as written directions for assignments. ◆Provide over-learning through review and repetition. ◆Check understanding of concepts through practice and talk-alouds. ◆Provide immediate feedback. ◆Other…	◆Provide visual guides during oral presentations. ◆Provide lecture notes or arrange for peer-shared notes. ◆Provide a study guide to be completed during pauses in presentation. ◆Seat the student in a location away from distractions in order to optimize attention. ◆Provide extra time to copy information. ◆Read written directions aloud. ◆Use graphic organizers to reinforce associations between concepts. ◆Other…

1 *Cattell-Horn-Carroll Theory

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Cognitive Ability Factor	Related Achievement Normative Weaknesses	Relationship to Academic Learning	Recommended Instructional Interventions	Recommended Accommodations
Fluid Reasoning (*Gf*) is 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. *Gf* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Reading Comp. _____ ☐ Math Calculations _____ ☐ Math Problem Solving _____ ☐ Written Expression _____ (Check Normative Weakness <85)	◆*Gf* has a significant relationship to higher level skills in reading, writing, and math, such as problem solving, drawing inferences, mental flexibility, transferring and generalizing, and thinking conceptually.	◆Teach problem-solving techniques in the contexts in which they are most likely to be applied. ◆Provide over-learning through repetition and multiple review of concepts. ◆Use concrete objects and manipulatives to develop conceptual understanding. ◆Use metacognitive skills, such as reflective discussions, thought journals, and self-questioning techniques. ◆Use think-alouds, guided practice, and feedback. ◆Use multiple and complex systems of retrieval and integration, such as compare, classify, abstract, induce, deduct, analyze perspectives. ◆Monitor for understanding. ◆Other…	◆Provide assistance in a timely manner. ◆Provide assistance with functions throughout a task such as when there are changes in task demands. ◆Seat the student next to a peer helper who can provide assistance. ◆Use graphic organizers to analyze relationships, such as cause and effect, compare and contrast, classification schemes, and sequential order. ◆Other…
Auditory Processing (*Ga*) is the ability to perceive, analyze, and synthesize patterns among auditory stimuli (sounds) and to discriminate subtle nuances in patterns of sound and speech when presented under distortion conditions. *Ga* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading _____ (Phonetic Coding) ☐ Math Problem Solving _____ (Phonetic Coding) ☐ Written Expression _____ (Phonetic Coding) ☐ Listening Comp. _____ (Check Normative Weakness <85)	◆*Ga* has a significant relationship to reading and writing, especially during early stages of skill acquisition, such as acquiring phonics, sequencing sounds, listening, learning foreign language, and musical skills.	◆Provide direct explicit, systematic instruction. ◆Provide phonological awareness activities such as rhyming, alliteration, imitation, songs. ◆Provide explicit, instructions in sound discrimination, blending, and segmentation. ◆Emphasize sound-symbol associations when teaching decoding and spelling. ◆Provide visual aids, such as notes or study guides for listening activities. ◆Provide assistance with note taking. ◆Accompany oral information with visual materials. ◆Check for comprehension after directions are given. ◆Other…	◆Provide a well managed classroom with control of extraneous activities that create auditory distractions and competing background noise. ◆Provide a peer assistant or buddy to assist with information when the student does not understand an oral communication. ◆Provide preferential seating that supports monitoring of student comprehension. ◆Other…
Processing Speed (*Gs*) is the ability to fluently and automatically perform cognitive tasks, especially when under pressure to maintain focused attention and concentration. *Gs* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading (P) _____ ☐ Reading Comp. (P) _____ ☐ Reading Fluency _____ ☐ Math Calculations (P) _____ ☐ Math Problem Solving (P) _____ ☐ Written Expression (P) _____ (P)=Perceptual Speed (Check Normative Weakness <85)	◆*Gs* has a significant relationship to reading, writing, and math especially during early stages of learning, such as completing assignments on time, processing information quickly, taking timed tests, and copying from the board.	◆Provide oral discussions. ◆Provide activities to increase rate and fluency, such as flash cards or speed drills through educational software. ◆Provide strategies that improve the rate of task completion. ◆Encourage the student to self-monitor progress, such as graph for reading fluency, writing fluency, and math computation fluency. ◆Other…	◆Shorten directions. ◆Provide lecture outlines such as a formatted script of notes in which only key words need to be added. ◆Limit or structure copying activities ◆Consider individualizing test taking, such as small group. ◆Provide extra time to read the text. ◆Provide extra time for processing. ◆Provide extra time to complete assignments. ◆Other…
Visual Processing (*Gv*) is the ability to think about and generate, perceive, analyze, synthesize, store, retrieve, manipulate, transform, and think with visual patterns and stimuli. *Gv* Cluster Average: _____ ☐ Weakness (≤84) ☐ Within Normal Limits (85-115) ☐ Strength (≥116) ☐ Uninterpretable	SS ☐ Basic Reading _____ ☐ Reading Fluency _____ (Visual Memory) ☐ Reading Comp. _____ (Spatial Concepts) ☐ Math Calculations _____ (Number Alignment) ☐ Math Problem Solving _____ (Advanced Math) ☐ Written Expression _____ (Spelling, Spatial Planning) (Check Normative Weakness <85)	◆*Gv* has some relationship to reading fluency and higher level math, such as using patterns and designs, sensing spatial orientation and boundaries, and noting visual detail.	◆Provide multisensory learning using visual, kinesthetic, vocal, and auditory channels. ◆Use manipulatives during instruction. ◆Use language to describe visual forms of information as they are manipulated. ◆Provide copying, tracing, and drawing activities. ◆Provide verbal description of graphics and visually-based concepts. ◆Use color coding to illustrate steps. ◆Other…	◆Provide spatial and sequential guides. ◆Provide visual markers to indicate starting location and organization. ◆Provide graphic organizers to organize information. ◆Other…

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SUMMARY:

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