Identification of SLD: Using Cross Battery Assessment to Determine Patterns of Strengths and Weaknesses

Greater Rochester Association of School Psychologists Conference

January 18, 2019

Agenda for the day

- Review of CHC Theory Broad and Narrow Abilities
- Review of CHC Skills as they relate to academic skills
- Differentiating between base rates and significance levels
- Part 200 Review of Learning Disabilities
- Pattern of Strengths and Weaknesses-how it looks
- One possible framework for identifying LD in a school district
- Review of the X-BASS program
- Case Study Review
- Tips and Shortcuts for School Psychologists
- Q&A

The Ghost of LD Past (How many of you are guilty?)

- Child is referred to you because he/she cannot read, do math, write, or speak well.
- You give a WISC-V (or a WPPSI-IV, or a WAIS-IV)
- You give a WIAT-III
- You look for a difference between the Wechsler cognitive ability and achievement score.
- If different big-LD Yes! If different small-LD No!

Problems with the preceding model

- It's important to realize that although this model made intuitive sense (the child should be "smart" enough to learn the material, but he/she simply cannot learn to the wait predicted) and although there is some research to support it (correlation of "g" to predict academic success), there were many problems inherent.
- Sometimes a lower full scale IQ ("g") may not be indicative of "dulled intelligence", but more indicative of a processing deficit. That processing deficit could close the IQ/Achievement gap so there is no discrepancy-but in truth, that is what is also leading to the learning disability.

Pay no attention to the man behind the curtain-the great Oz has spoken!

- The problem with the pre-existing framework is it focuses only on eligibility, not on why the problem is there.
- As school psychologists, we all play a pivotal role in understanding the etiology of learning dysfunction. This not only helps with the identification process-but also can help with intervention generation.

Wechsler-strengths and limitations

- The Wechsler tests are excellent in terms of being able to measure acquired knowledge and language based constructs.
- The Wechsler tests have recently been updated to include measures of fluid reasoning (more on this later)
- The Wechsler tests, however, have areas that are either underrepresented or do represent certain skills at all (more on this later too-maybe-if I remember that far).

CHC theory: Beginnings

"IF CHC theory had a personality, it would be open-minded, ambitious, and polite. It does not explain everything about intelligence, but it wants to. It has a lot ot say and is perhaps a bit long-winded, but it also listens to other theories. It has a "big-tent" mindset, tolerating ambiguities and disagreements wherever there are reasonable grounds for disagreement (e.g., the nature of general intelligence). It likes to cooperate with other theories when it can and enjoys a good debate when it cannot" (Schneider & McGrew, 2018, p. 73).

CHC theory: Beginnings

- CHC Theory stands for the three scholars who contributed to where the theory stands today. They include Raymond Cattell, John Horn, and John Carroll.
- Raymond Cattell set the beginnings to this theory by postulating that there are two intelligences: *Crystallized Intelligence and Fluid Intelligence*.

CHC Theory: Evolution

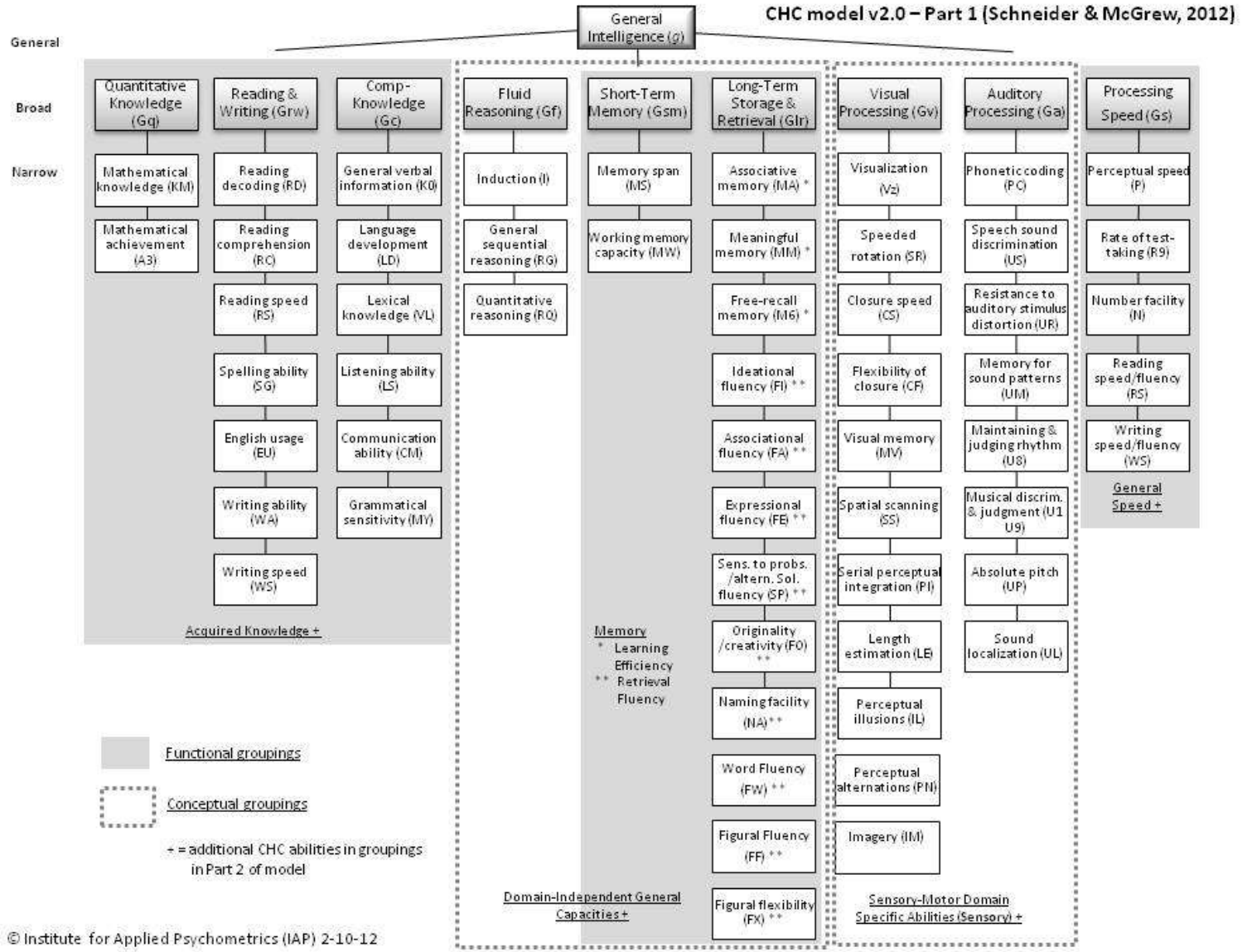
- John Horn was a student of Raymond Cattell's. He concluded that human beings had about seven different broad abilities. John Horn posited, however, that there was no such artifact as "g". This framework then came to be known as Gf-Gc theory.
- John Carroll analyzed decades of human cognitive abilities research and came up with a three-stratum theory of cognitive development. His seminal work, *Human Cognitive Abilities* (1993) provided the groundwork for what the scholars eventually agreed would be called CHC Theory.

CHC Theory: The Present

- Thanks to the works of many scholars, CHC theory found its place in the WJ-R and the WJ-III. This paved the way for the theoretical underpinnings for future tests. Tests that have identified CHC theory as the providing framework for future tests including the SB-V, the K-ABC II, and the DAS-II.

CHC Theory: The Present-sort of…not really…it's really now the past

- According to contemporary theory-there are three strata that can be measured by various tests.
- Stratum I consists of 70+ cognitive abilities. They are subsumed by…
- Stratum II-which consist of the 7-9 broad abilities that Horn and Carroll identified. These seven are subsumed by…
- Stratum III-which is 'g'.


CHC model v2.0 – Part 1 (Schneider & McGrew, 2012)
General
Broad
Narrow
General Intelligence (g)
Quantitative Knowledge (Gq)
Reading & Writing (Grw)
Comp-Knowledge (Gc)
Fluid Reasoning (Gf)
Short-Term Memory (Gsm)
Long-Term Storage & Retrieval (Glr)
Visual Processing (Gv)
Auditory Processing (Ga)
Processing Speed (Gs)
Mathematical knowledge (KM)
Mathematical achievement (A3)
Reading decoding (RD)
Reading comprehension (RC)
Reading speed (RS)
Spelling ability (SG)
English usage (EU)
Writing ability (WA)
Writing speed (WS)
General verbal information (K0)
Language development (LD)
Lexical knowledge (VL)
Listening ability (LS)
Communication ability (CM)
Grammatical sensitivity (MY)
Induction (I)
General sequential reasoning (RG)
Quantitative reasoning (RQ)
Memory span (MS)
Working memory capacity (MW)
Associative memory (MA) *
Meaningful memory (MM) *
Free-recall memory (M6) *
Ideational fluency (FI) **
Associational fluency (FA) **
Expressional fluency (FE) **
Sens. to probs. /altern. Sol. fluency (SP) **
Originality /creativity (FO) **
Naming facility (NA) **
Word Fluency (FW) **
Figural Fluency (FF) **
Figural flexibility (FX) **
Visualization (Vz)
Speeded rotation (SR)
Closure speed (CS)
Flexibility of closure (CF)
Visual memory (MV)
Spatial scanning (SS)
Serial perceptual integration (PI)
Length estimation (LE)
Perceptual illusions (IL)
Perceptual alternations (PN)
Imagery (IM)
Phonetic coding (PC)
Speech sound discrimination (US)
Resistance to auditory stimulus distortion (UR)
Memory for sound patterns (UM)
Maintaining & judging rhythm (U8)
Musical discrim. & judgment (U1 U9)
Absolute pitch (UP)
Sound localization (UL)
Perceptual speed (P)
Rate of test-taking (R9)
Number facility (N)
Reading speed/fluency (RS)
Writing speed/fluency (WS)
General Speed +
Acquired Knowledge +
Memory
* Learning Efficiency
** Retrieval Fluency
Domain-Independent General Capacities +
Sensory-Motor Domain Specific Abilities (Sensory) +
Functional groupings
Conceptual groupings
+ = additional CHC abilities in groupings in Part 2 of model
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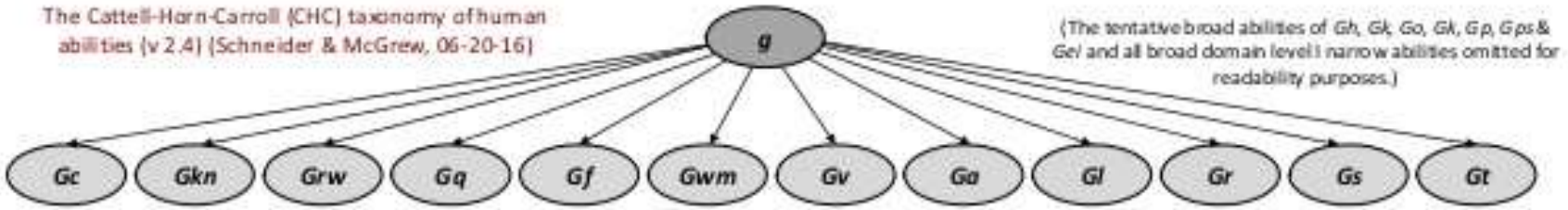


Comprehension-knowledge (Gc): The depth and breadth of declarative and procedural knowledge and skills valued by one's culture. Comprehension of language, words, and general knowledge developed through experience, learning and acculturation.	***Visual-spatial processing (Gv):*** The ability to use mental imagery, store images in primary memory, or perform visual-spatial analysis or mental transformation of images in the "mind's eye."
Domain-specific knowledge (Gkn): The depth, breadth, and mastery of specialized declarative and procedural knowledge typically acquired through one's career, hobby, or other passionate interest. The *Gkn* domain is likely to contain more narrow abilities than are currently listed in the CHC model.	***Auditory processing (Ga):*** The ability to perceive, discriminate, and manipulate sounds and information received through the ears. Includes the processing of auditory information in primary memory and/or the activation, restructuring, or retrieval of information from semantic-lexical memory based on phonemes.
Reading and writing (Grw): The depth and breadth of declarative and procedural knowledge and skills related to written language or literacy.	***Learning efficiency (Gl):*** The ability and efficiency to learn, store, and consolidate new information in long-term memory.
Quantitative knowledge (Gq): The depth and breadth of declarative and procedural knowledge related to mathematics. The *Gq* domain is likely to contain more narrow abilities than are currently listed in the CHC model.	***Retrieval fluency (Gr):*** The rate and fluency at which individuals can produce and retrieve verbal and nonverbal information or ideas stored in long-term memory.
Fluid reasoning (Gf): The use of deliberate and controlled focused attention to solve novel "on the spot" problems that cannot be solved solely by using prior knowledge (previously learned habits, schemas, or scripts). Reasoning that depends minimally on learning and acculturation.	***Processing speed (Gs):*** The ability to control attention to automatically and fluently perform relatively simple repetitive cognitive tasks. Attentional fluency.
Short-term working memory (Gwm): The ability to encode, maintain, and/or manipulate auditory or visual information in primary memory (while avoiding distractions) to solve multiple-step problems. The mind's mental "scratchpad" or "workbench."	***Reaction and decision speed (Gt):*** The speed at which very simple perceptual discriminations or decisions can be made. © Institute for Applied Psychometrics; Kevin McGrew 06-21-16

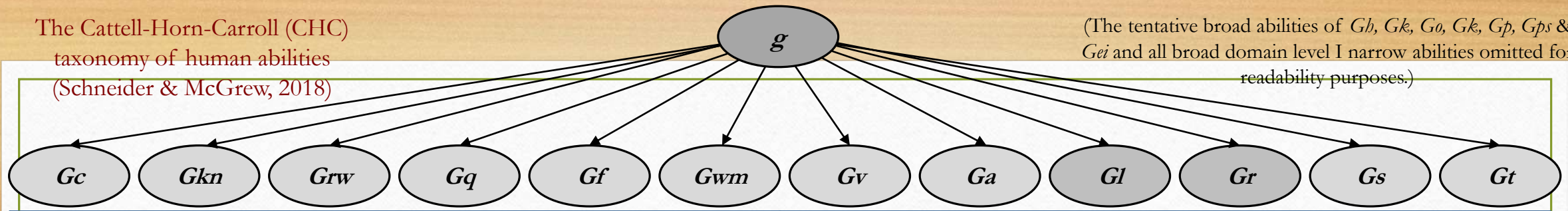
Retrieved from: https://www.slideshare.net/iapsych/chc-model-of-inteligence-revised-v24-has-glr-been-incorrectly-conceptualized-since-1997/55

However, this has changed…

The new taxonomy is here:

http://www.iqscorner.com/2018/08/the-new-cattell-horn-carroll-chc.html

The Cattell-Horn-Carroll (CHC) taxonomy of human abilities (Schneider & McGrew, 2018)



(The tentative broad abilities of *Gh, Gk, Go, Gk, Gp, Gps* & *Gei* and all broad domain level I narrow abilities omitted for readability purposes.)

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Review of CHC skills as they relate to academic skills

- The evidence for the CHC abilities relating to academic skills is well-highlighted in the literature. These are taken from Mascolo, Alfonso, & Flanagan (2014).

Crystallized Intelligence (Gc)

- For reading, the narrow abilities of language development, lexical knowledge, and listening ability are important.
- For math, the narrow abilities of language development, lexical knowledge, and listening ability are important.
- For writing, the narrow abilities of language development, lexical knowledge, and general information, are important.

Fluid reasoning (Gf)

- For reading, inductive and general sequential reasoning play a moderate role in reading comprehension only.
- For math, inductive and general sequential reasoning play strong roles.
- For writing, inductive and general sequential reasoning abilities are related to written expression.

Short-Term Memory (Gwm)

- Both memory span and working memory capacity are strongly related to reading and math achievement.
- For writing, memory span is more important for spelling and working memory capacity is more related to advanced writing skills.

Visual Processing (Gv)

- In reading, orthographic processing is related to reading fluency and spelling in writing
- In math, higher level visual spatial skills (e.g. visualization) may relate to skills in geometry
- Although orthography does relate to reading fluency and spelling, our cognitive ability tests do not do a great job of measuring this

Auditory processing (Ga)

- Phonetic coding skills are important in basic reading and spelling skills during the early years.

Long-term storage and retrieval (Glr)
Note: The latest iteration of CHC theory is moving this into two broad abilities: Gl (Learning Efficiency) and Gr (Retrieval Fluency)

- The narrow ability of rapid automatic naming in the retrieval part of Glr is important; associative memory in the encoding part is also important for reading. There is some relationship in math and writing as well.

Processing Speed (Gs)

- Perceptual speed is an important skill in all ages in reading, writing, and math.

Base rates and significance levels

- These are often misunderstood concepts. When using a traditional discrepancy approach, one often uses a .05 or .01 alpha level to determine significance and discrepancy.
- When the difference between expected and actual achievement exceeds the critical value, as indicated by the .05 and .01 levels, that is the probability that the difference is *due to chance*…but the difference could still be common in the population.
- Base rates, on the other hand, identify how often the difference was present in the population. So if a difference of 20 points has a base rate of 5%, this means only 5% or more of the sample had a difference of that much or more.
- If you use the WJ-IV to look at the difference between expected and actual achievement, you will get an idea of the base-rate or *prevalence* of that difference in the population. Let's look at an example.

COG EFFICIENCY (Ext)	88	104	-16	10	-1.28	--
BRIEF ACHIEVEMENT	93	105	-12	12	-1.19	--
READING	92	105	-13	12	-1.18	--
BROAD READING	88	105	-17	7	-1.51	Weakness
BASIC READING SKILLS	90	104	-14	11	-1.20	--
READING COMPREHENSION	90	105	-15	9	-1.36	--
READING FLUENCY	88	104	-16	9	-1.33	--
READING RATE	86	103	-17	8	-1.41	--
WRITTEN LANGUAGE	97	104	-7	28	-0.58	--
BROAD WRITTEN LANGUAGE	97	104	-7	29	-0.55	--
BASIC WRITING SKILLS	85	104	-19	4	-1.76	Weakness
WRITTEN EXPRESSION	105	103	2	57	+0.17	--
ACADEMIC APPLICATIONS	101	105	-4	34	-0.41	--
PHONEME-GRAPHEME KNOW	86	104	-18	7	-1.50	Weakness

A final note on base-rates and significance levels…for now…

- Question: What happens to the probability of finding a discrepancy with the more comparisons you make?
- Answer: You increase the probability of finding a discrepancy and making a Type I Error…(saying there's a problem when there really isn't one.) You correct for this by restricting the alpha level if you make many more comparisons (e.g. using .01 as a criteria, rather than .05).

QUIZ TIME

Part 200 Review of Learning Disabilities: TRUE OR FALSE?

1. You cannot use discrepancy between intelligence and achievement when identifying a learning disability in reading for a student in grades K-4.
2. You are required to use RTI to identify a learning disability in reading in grades K-4.
3. A student cannot be identified as LD if the main reason for the learning problem is a sensory (visual or hearing) impairment, intellectual disability, emotional disturbance, or environmental and/or cultural disadvantage.
4. To use RTI, you must have used research-based practices, with the parents being informed of the student's progress.

1. True
2. False-sort of.
3. True
4. True

Definitions of "Learning Disability" taken from our regulations

- (6)Learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which manifests itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, as determined in accordance with section 200.4(j) of this Part. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing or motor disabilities, of an intellectual disability, of emotional disturbance, or of environmental, cultural or economic disadvantage.

http://www.p12.nysed.gov/specialed/lawsregs/sect2001.htm

Part 200 requirements for identifying a learning disability:

(ii) To ensure that underachievement in a student suspected of having a learning disability is not due to lack of appropriate instruction in reading or mathematics, the CSE must, as part of the evaluation procedures pursuant to section 200.4(b) and (c) of this Part, consider,

(a) data that demonstrate that prior to, or as part of, the referral process, the student was provided appropriate instruction in regular education settings, delivered by qualified personnel; and

(b) data-based documentation of repeated assessments of achievement at reasonable intervals, reflecting formal assessment of student progress during instruction, which was provided to the student's parents.

Part 200 requirements for identifying a learning disability

The regs specifically state that ONE of the TWO criteria can be used for SLD identification

- *Child does not make sufficient progress to meet age or State approved grade level standards in one or more of the areas identified in this paragraph when using a process based on the student's response to scientific, research-based intervention*

OR

- *Exhibits a pattern of strengths and weaknesses in performance, achievement, or both relative to age, State approved grade level standards or intellectual development.*

Part 200 requirements for identifying a learning disability

- 4) In addition to the criteria in paragraph (3) of this subdivision, the CSE is not prohibited from considering whether there is a severe discrepancy between achievement and intellectual ability in oral expression, listening comprehension, written expression, basic reading skill, reading fluency skills, reading comprehension, mathematical calculation and/or mathematical problem solving; provided that effective on and after July 1, 2012, a school district shall not use the severe discrepancy criteria to determine that a student in kindergarten through grade four has a learning disability in the area of reading.

Question: Can you use PSW to identify a child in reading in grades K-4?

Can you use PSW to identify LD for children in reading in grades K-4?

According to this RTI guidance document…no

- "Effective on and after July 1, 2012, a school district must have an RtI process in place as it may no longer use the severe discrepancy between achievement and intellectual ability to determine that a student in kindergarten through grade four has a learning disability in the area of reading

But…

- The law differentiates discrepancy from PSW and the law by the two words "In addition" (see previous text). A close read of the regs indicates you cannot use discrepancy but it does NOT prohibit PSW.

Use of a Pattern of Strengths and Weaknesses to identify LD

- Again, according to the law, this is: Exhibits a pattern of strengths and weaknesses in performance, achievement, or both relative to age, State approved grade level standards or intellectual development.
- There are multiple frameworks for using PSW to identify LD. I will be focusing on Flanagan et al.'s framework of Consistency/Discrepancy.

Flanagan & Alfonso (2011) highlight the following for LD:

1. Difficulties in one or more areas of academic achievement
2. Not resultant of visual, hearing, or motor problems, ID, ED, or environmental or cultural disadvantage
3. A disorder in one or more of the basic psychological processes
4. Unexpected underachievement
5. SLD has an adverse impact on educational performance

On unexpected underachievement

- Flanagan and colleagues do focus on average or better cognitive ability, but highlight that overall composite scores do not measure all areas and some cognitive ability areas *should* probably be low. In other words, you might expect a reading deficit with a deficit in auditory processing, but not a math deficit.
- One concern with this framework, however, is that the law never says that one must have average or better cognitive ability.

Steps for carrying out a PSW evaluation

- Identify areas of underachievement
- Assess all areas of related cognitive abilities (in fact, identification of all CHC broad abilities is recommended so one may identify strengths as well as weaknesses.)
- Assess areas of academics (I actually recommend looking at all-it can provide more evidence for unexpected strengths.)
- Look for cognitive deficits that are related to academic deficits, but also unrelated cognitive strengths.
- If you're looking at global deficits (low cognitive ability scores across the board)-you may be looking at someone with either an intellectual disability or a slow learner profile.
- Be wary of "strengths" only in areas such as auditory processing or processing speed-such skills are usually not highly related to *g* ,but are strongly implicated in learning disabilities.

Are these children different?

James-age 8:2

- WISC-IV
  - FS IQ-100

Lucinda-age 8:2

- WISC-IV
  - FSIQ-100

Are these children different?

James-age 8:2

- WISC-IV
  - VCI-120
  - PRI-80
  - WMI-90
  - PSI-110
  - FS IQ-100

Lucinda-age 8:2

- WISC-IV
  - VCI-80
  - PRI-90
  - WMI-120
  - PSI-110
  - FSIQ-100

Cross Battery Assessment (XBA)

- Not all cognitive tests tap all cognitive abilities. If you're using the Wechsler- you're not getting Ga (though there are now measures of Glr or Gl/Gr but you have to actually give them.)
- Yes, the WJ-IV has all areas, but the Ga subtests are actually thought to largely measure Glr and Gsm.
- To accurately get at all cognitive abilities, you'll usually need to give more than one cognitive test…but this doesn't mean 2 or more full cognitive batteries.

The importance of going outside the standard battery to gain information

- Cross-Battery Assessment (XBA) gained momentum in 1997 with the publication of "The Intelligence Test Desk Reference" by Dawn Flanagan and Kevin McGrew.
- XBA, at the time, was a framework developed because only one battery (the WJ-R) captured all CHC areas. As a result-some areas were missed.
- Flanagan and McGrew argued that by combining batteries, one could get all 7 broad abilities represented.

The importance of going outside the standard battery to gain information

- In order to have a complete profile-you had to *adequately* represent each broad ability by testing 2 or more narrow abilities. If you only tested one narrow ability-this led to "construct underrepresentation". For example, the WISC-IV had matrix reasoning and picture concepts as measures of Gf but both measured induction-the construct was underrepresented.
- If the two measures were far apart from each other (i.e. the confidence bands did not overlap), the factor was said not to be cohesive (unitary in previous versions) and you needed to administer an additional assessment to get an idea of where the child was functioning.
- The profile was complete by averaging the scores across batteries.

The importance of going outside the standard battery to gain information

- The averaging of scores met with some criticism. It was clarified that if you had a test composite-you should use that (e.g. you gave similarities and vocabulary and got a VCI of 97 but an averaged composite of 99, you should use the 97 because you should use the actual norms.)
- The concept of averaging still met with criticism. Enter "Essentials of Cross Battery Assessment-2nd Edition" by Flanagan, Ortiz, Alfonso (2007). This edition used a software program which "weighted" some higher *g* scores more than others. However, only cognitive abilities were measured.

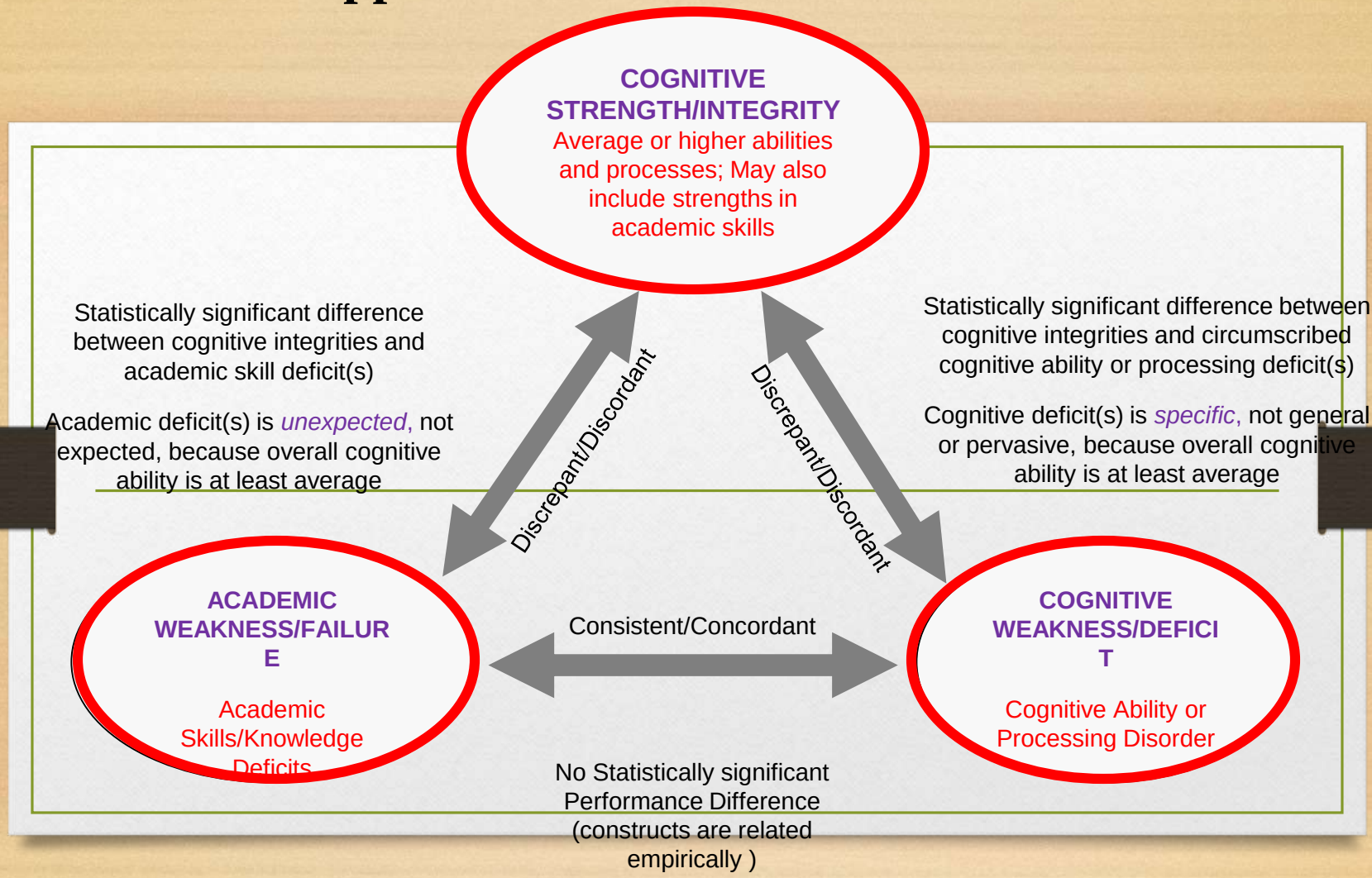
The importance of going outside the standard battery to gain information

- Why is this important?
  - Taken from the law (300.304(c)(3) of IDEA): (3) Assessments are selected and administered so as best to ensure that if an assessment is administered to a child with impaired sensory, manual, or speaking skills, the assessment results accurately reflect the child's aptitude or achievement level or whatever other factors the test purports to measure, rather than reflecting the child's impaired sensory, manual, or speaking skills (unless those skills are the factors that the test purports to measure).
  - Not all tests look at the same thing. If you believe a child is memory-impaired-the K-ABC 2 is not a good instrument for an overall score, but it is good if a child has a processing speed deficit-there are no tasks that measure speed.

Steps to completing a good cross battery assessment

- Start with a good core battery. Try to be thoughtful in choosing your battery. For example, the K-ABC 2 has a Gc task with single word answers and pointing to pictures, whereas the WISC-V requires more complex verbal answers (particularly for vocabulary)-not always a great idea for our ELL or ASD population.
- Identify the areas you have. Then go out of battery. So if you start with the K-ABC 2, you'll have Gc, Gl, Gf, and Gv represented. You will not have Gr, Gs, or Ga represented. Perhaps you'll want to fill in with the WJ-IV or WISC-V and CTOPP 2.
- Look at your composites. If the subtest that comprise your composites are significantly discrepant, your composite may not be well-represented. Consider giving another subtest and use the score that is closer to your score.
- Give your achievement battery(ies)
- Determine if there is a PSW.

Common Elements of "PSW Component" of Third Method Approaches to SLD Identification



Sotelo, Flanagan, and Alfonso (2011). Overview of SLD Identification. In D. P. Flanagan & V. C. Alfonso, *Essentials of Specific Learning Disability Identification*. Hoboken, NJ: Wiley. Flanagan, Fiorello, and Ortiz (2010); Hale, Flanagan, and Naglieri (2008)

An example of a SLD checklist

X-BASS

- There is a software program called the X-BASS, that will conduct PSW analysis based on the tests that you gave. It is put out by Wiley Publishing.

X-BASS (Wiley Publishing)

- This program will use the Flanagan/Alfonso framework for identifying SLD.
- It is NOT easy to use. You should have a copy of Essentials of Cross Battery Assessment-3rd Edition to be familiar with ahead of time.
- X-BASS will have a ton of tests built into the system. The CHC measures of these tests are highlighted.

X-BASS

1. Put your scores into the program. The program will identify if the scores are cohesive (that is-they are clustered together) and if you should follow-up.
2. Any areas where you followed up should be input into the program under the XBA analyzer tab.
3. For each CHC area-you will identify whether you want to use the test composite or the CHC composite.
4. Those scores will go into the Data Organizer where your cognitive and academic composites and subtests will reside.
5. You'll identify the strengths and weaknesses. Any score 90 or higher is considered a strength. Below 85 are generally weaknesses. 85-89 is examiner judgment.

X-BASS

6. The program will generate a FCC (facilitative cognitive composite) which is an aggregate of the individual's strengths. Then a ICC will be generated (as long as there are at least 2 weaknesses).
7. Finally-the program will determine, based on strength of the relationships between the cognitive abilities and achievement skills, whether there is an empirical relationship and a dual discrepancy/consistency, identifying a pattern of strengths and weaknesses.

Strengths and weaknesses of various tests

WISC-V

Strengths

- CHC theory pretty-well represented
- Has measures of associative memory and rapid naming
- Excellent measures of Gc
- Well-researched good theoretical instrument
- Multiple indices help to guide interpretation

Weaknesses

- 7 subtest full scale IQ may detract practitioners from a full evaluation
- Higher demand on oral language and acculturation
- Timed manual dexterity a component in 2 tests for the FSIQ and 3 for the 5 index scores

WJ-IV-COG

Strengths

- Comprehensive instrument-gets at all 7 broad abilities
- Some strong subtests (verbal attention is an excellent working memory subtest)
- A terrific supplement if you're using cross battery assessment
- Co-normed with the WJ-IV Achievement…lends itself nicely to ipsative analysis
- Co-normed with the WJ-Oral Language
- Instrument is self-contained-not a lot of materials

Weaknesses

- A measure of math used as one of the measures of Gf
- Two Gf measures have high receptive language demands
- Oral vocabulary will work against students who have word finding skills
- Debate on Ga tests-phonological processing thought to load heavily on Glr and nonword repetition to load on Gwm.

DAS-2

Strengths

- Early childhood measures get nicely at language comprehension without verbal response
- Picture similarities is a nice way to get at Gf, a hard construct to measure at earlier ages
- Both early childhood and school-age cores are pretty quick to give, but comprehensively give 3 areas
- Measures of cognitive efficiency not in the GCA
- Nonverbal index available

Weaknesses

- Phonological processing is a mixed measure
- Test is not always examiner-friendly…complex scoring and tests like recall of designs require expertise in administration
- Word definitions on school-aged are not always great choices-kids often want to use the words in sentences
- Speed of information processing is not continuous

K-ABC 2

Strengths

- Has been lauded for use with lower language and ASD populations
- Nonverbal index included including a Gwm subtest that is completely nonverbal (hand movements)
- Lower language demands-one measure of Gc is receptive
- Fun and engaging for kids
- 5 broad abilities represented (though Glr is underrepresented)

Weaknesses

- Takes a long time to give (story completion, rover, rebus, and triangles are lengthy subtests)
- Doesn't have measures of processing speed (though this is a strength in that it doesn't attenuate the global score).
- One Gf subtest (story completion) largely related to acculturation

WJ-IV ACH

Strengths

- Can pair with the WJ-IV COG to get specific predicted scores for the ACH.
- Does a good job of splitting writing into its component parts.
- Does an excellent job of identifying how reading mitigates comprehension (you can give oral comprehension and listening comprehension and story recall vs. reading recall.)
- Has every IDEA SLD area represented by a composite except for Listening Comprehension and Oral Expression.
- Academic knowledge prediction can help identify lack of inappropriate instruction.

Weaknesses

- Some criticism of passage comprehension using cloze as the method to get at comprehension.
- Writing samples has some criticism as not being reflective of writing tasks given in school.

WIAT-III

Strengths

- Reading comprehension has longer stories that are engaging.
- Pseudoword decoding has many more words that increase in complexity.
- Oral reading fluency has the student reading connected text and looks at both accuracy and speed.

Weaknesses

- Okay-can we all agree…the writing is soul crushing.
- Only one subtest to measure certain areas like math problem solving and calculation.
- Listening comprehension and oral expression measures tend to be mixed with other areas (such as vocabulary and short term memory.)

K-TEA 3

Strengths

- Multifaceted test with added features, including phonological processing, rapid naming, and ideational fluency.
- Writing is engaging-increments in difficulty from basic mechanical skills to writing a full writing piece; can identify the breakdown in writing.
- Good ability to show mitigation of reading for overall comprehension.

Weaknesses

- Reading comprehension and written expression seem to take a very long time to give.
- Phonological processing is a mixed measure.

Critiques

- There continue to be critiques of this approach (e.g. McGill, Dombrowski, & Canivez, 2018; Beaujean, Benson, McGill, & Dombrowski, 2018). I STRONGLY encourage you to read and think carefully about those criticisms.
- Despite these criticisms, the science on the importance of looking at cognitive abilities is not only well-established, but receiving attention globally (Schneider & McGrew, 2018).
- Ultimately, it will be you who is the expert.

Tips and shortcuts for school psychologists

- Use dictation-cell phones and iPads now have really good voice recognition.
  - Do your observation or your social history and immediately after-dictate it. Upload to your private password-protected word cloud account. When ready-cut and paste it into your report and edit for translation errors.
- If you use Q-global…score your stuff as soon as you can. Make sure you run the report in Word-not as a pdf. Cut and paste the entire score table, highlight the columns you don't want (e.g. raw scores) and delete.
- If you use the WJ-scoring software…make sure to run in word. You can customize it so only the fields you want are printed.
- If you do the above-then when it comes time to write your report-you will only have to do the test findings, summary, and recommendations section.
- Consider using google forms for teacher/parent input-make sure to password-protect. This can help you if you haven't gotten to teacher to get his or her background.

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Contact me anytime

John Garruto, D.Ed., NCSP

jgarruto@oswego.org