
Reports 101

Understanding the basics of a
psychoeducational evaluation

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What is a Psychological Evaluation?

“...a set of procedures, often including tests, administered by a licensed psychologist or credentialed school psychologist to obtain information about a student’s learning, behavior, or mental health.”

In school settings...

“School psychologists most often conduct evaluations as part of the special education team’s effort to determine if a student has a disability and is eligible for special services.”

(Canter - NASP *HCHSIII*)

Reasons for an evaluation:

- To understand and address a student's individual learning needs
- To help develop instructional or behavioral plans
- To inform a student's educational program
- History of "not meeting benchmarks" or perceived "red flags" of a disability / disabling condition
- Student attitude toward school / learning / reading
- To identify significant mental health concerns
- Family history of academic struggle or disability
- Curiosity about a student's learning profile or cognitive potential
- Etc., etc. etc.

Outside Evaluations v. School-based Evaluations

Private Psychological Evaluations

- Referral by parents or private providers/practitioners
- If warranted, diagnosis will be provided based on *DSM-5* or *ICD -10* diagnostic codes
- May provide specific recommendations for private interventions

Similarities: Tests / assessment tools used are often the same or similar

School-based Psychological Evaluations

- Conducted as part of the IDEA (Special Education) or Section 504 evaluation process, referral may be school staff or parent
- Evaluations are (usually) multidisciplinary
- Purpose - To respond to a specific referral question
- Target - To inform educational programming
- Describes results of testing and indicates whether or not the student may display behaviors or characteristics of a specific disorder, but no DSM or ICD code or diagnosis is given
- “Diagnosis” or IDEA classification area is not directly stated (eligibility is a team decision)

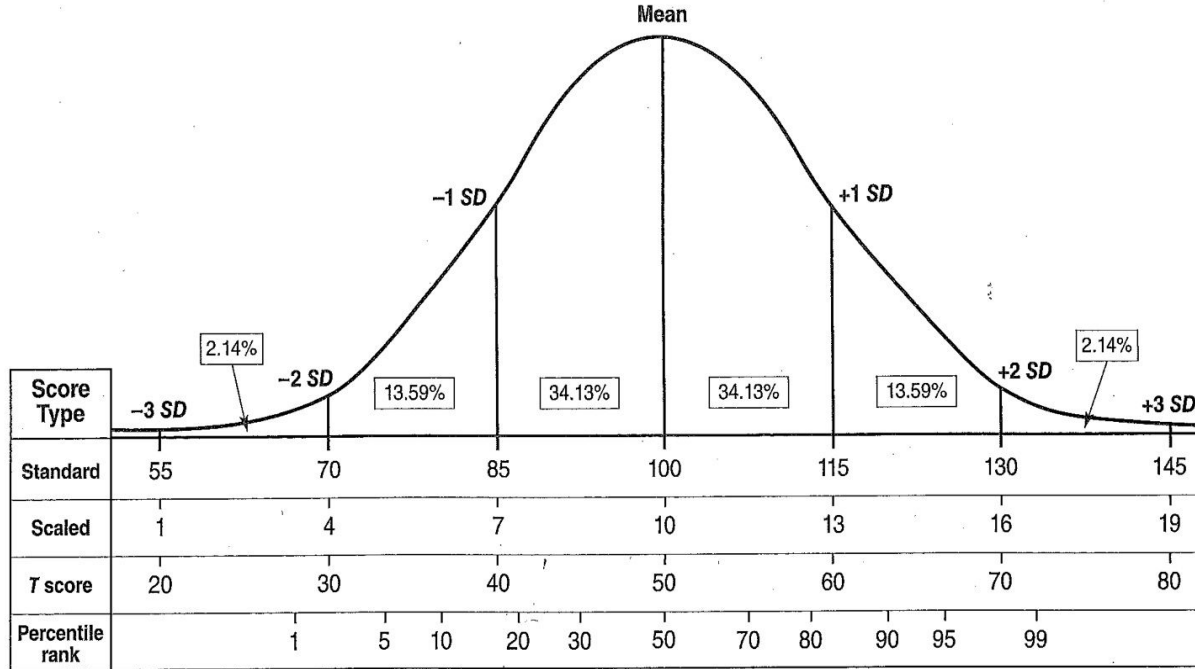
Basic Components of a Psychological Evaluation Report

- Reason for Referral
 - Background Information
 - Interviews, file review, etc.
 - Testing/Behavioral Observations
 - General Cognitive Abilities
 - IQ
 - Processing Abilities
 - Academic Achievement*
 - Behavior/Social-Emotional
 - Summary/Conclusion
 - Recommendations
-



Communicating
Evaluation
Results:
Key Terms Found
in a Psychological
Report

Interpreting Evaluation Results: The Normal Curve



“Score” Words

Describe how a student performed on a test compared to a representative sample of students of the same age from the general population (norm group)

Examples:

- Standard (Composite/Index) Score: Mean = 100, Standard Deviation = 15
- Scale (Subtest) Scores: Mean = 10, Standard Deviation = 3
- T-Scores (Composite/Subtest): Mean = 50, Standard Deviation = 10
- Confidence interval: The range of standard scores in which the student’s true score is likely to fall (90% to 95% of the time).
- Qualitative descriptions / Descriptive classifications: Used to describe a student’s ability compared to the norm group
- Percentile Rank (see following slide)

Percentile Rank

Definition:

A percentile rank indicates the percentage of the norm group obtaining scores equal to or less than the test-taker's score,

Or, alternatively,

The number of students out of 100 that the student scored better than when compared to the norm group.

Example:

A percentile rank of 25 (denoted as 25th percentile or %ile) indicates that the student scored as well as or better than 25% of individuals relative to the norm group.

What do these scores mean?*

Composite Score Range	Scaled Score Range	T-Score Range	Descriptive Classification
130 and Above	17-20	>71	Very Superior/Extremely High
121-130	15-16	64-70	Superior/Very High
111-120	13-14	58-63	High Average/High
90-110 or sometimes, 85-115	8-12	43-57	Average
80-89	6-7	37-42	Low Average/Below Average
70-79	4-5	30-36	Borderline/Very Low
69 and Below	1-3	<29	Extremely Low

Key Components of a Psychological Evaluation (when dyslexia is a concern)

Review of VDOE's Definition of Dyslexia:

“Dyslexia is distinguished from other learning disabilities due to its weakness occurring at the **phonological** level. Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by **difficulties with accurate and/or fluent word recognition** and by **poor spelling and decoding** abilities. These difficulties **typically result from a deficit in the phonological component of language** that is often **unexpected** in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.”

**Emphasis added*

Key Components of Psychological Evaluation

(when dyslexia is a concern)

- General cognitive ability
- Processing areas: 7 key areas of processing ability using CHC theory
- Phonological Processing (phonological awareness and rapid naming skills)
- Oral (and/or silent) reading (rate, accuracy, comprehension)
- Word reading efficiency
- Spelling (may be included in the educational evaluation)

Key Cognitive Processing Areas

Summary of Relations between CHC Abilities and Specific Areas of Academic Achievement

(Berninger, 2013; Flanagan and colleagues, 2006, 2013; McGrew & Wendling, 2010; McGrew et al., 2014)

	Reading Achievement	Math Achievement	Writing Achievement
<i>Gf</i>	Inductive (I) and general sequential reasoning (RG) abilities play a moderate role in reading comprehension .	Inductive (I) and general sequential (RG) reasoning abilities are consistently very important for math problem solving at all ages.	Inductive (I) and general sequential reasoning abilities (RG) are consistently related to written expression at all ages.
<i>Gc</i>	Language development (LD), lexical knowledge (VL), and listening ability (LS) are important at all ages for reading acquisition and development . These abilities become increasingly important with age.	Language development (LD), lexical knowledge (VL), and listening abilities (LS) are important at all ages. These abilities become increasingly important with age.	Language development (LD), lexical knowledge (VL), and general information (K0) are important primarily after about the 2 nd grade. These abilities become increasingly important with age.
<i>Gwm</i>	Memory span (MS) and working memory capacity (WM) or attentional control. <i>Gwm</i> important for overall reading success .	Memory span (MS) and working memory capacity (WM) or attentional control. <i>Gwm</i> important for overall math success .	Memory span (MS) is important to writing, especially spelling skills whereas working memory has shown relations with advanced writing skills (e.g., written expression). <i>Gwm</i> important for overall writing success .
<i>Gv</i>	Orthographic Processing (often measured by tests of perceptual speed) – reading fluency	Visualization (VZ) is important primarily for higher level or advanced mathematics (e.g., geometry, calculus).	Orthographic Processing (often measured by tests of perceptual speed) - spelling
<i>Ga</i>	Phonetic coding (PC) or “phonological awareness/processing” is very important during the elementary school years for the development of basic reading skills .		Phonetic coding (PC) or “phonological awareness/processing” is very important during the elementary school years for both basic writing skills and written expression (primarily before about grade 5).
<i>Glr</i>	Naming facility (NA) or “rapid automatic naming” (also called speed of lexical access) is very important during the elementary school years. Associative memory (MA) is also important.	Naming Facility (NA; or speed of lexical access); Associative Memory (MA) – rapid retrieval of basic math facts	Naming facility (NA) or “rapid automatic naming” (also called speed of lexical access) has demonstrated relations with written expression, primarily writing fluency .
<i>Gs</i>	Perceptual speed (P) abilities are important during all school years, particularly the elementary school years.	Perceptual speed (P) abilities are important during all school years, particularly the elementary school years.	Perceptual speed (P) abilities are important during all school years for basic writing and related to all ages for written expression.

Key Cognitive Processing Areas

“Find Your Match” Game

Fluid Reasoning (Gf)

“The use of deliberate and controlled mental operations, often in a flexible manner, to solve novel problems that cannot be performed automatically.”

- Or, “A type of thinking that an individual may use when faced with relatively new tasks that cannot be performed automatically” (Flanagan, 2014).
- Includes inductive and general sequential reasoning
- *For example: Forming/recognizing concepts, drawing inferences, reorganizing and transforming information, generalizing learning, novel reasoning and problem solving ability when solving unfamiliar problems, perceiving and applying underlying rules or process(es) to solve a problem*

Link to Achievement: **READING / WRITING**

- Reading Comprehension: The ability to reach general conclusions or draw an inference from specific information is important for reading comprehension (higher level thinking and reasoning)
- Writing: Following steps to write an essay; comparing and contrasting ideas

Crystallized Intelligence (Gc)

Can also be referred to as Comprehension Knowledge / Verbal Comprehension

“...a person's breadth and depth of acquired knowledge of the language, information and concepts of a specific culture, and/or the application of this knowledge.” (i.e., a person's knowledge base / general fund of information that has been developed over time (begins in infancy) (Flanagan)

Includes: General Verbal Information (knowledge that one's culture deems essential, practical, or otherwise worthwhile); Language Development (understanding of spoken language at the level of words, idioms, and sentences); and Lexical Knowledge (vocabulary that can be understood in terms of correct word meanings; listening ability; communication ability; and grammatical sensitivity

Link to Achievement: READING/WRITING

Crystallized abilities, a student's language development, vocabulary knowledge, and the ability to listen are important for reading. This ability is mostly related to reading vocabulary and reading comprehension, but also relates to how an individual expresses himself verbally or in writing.

Long-term Storage and Retrieval (Glr)

“The ability to store and consolidate new information in long-term memory and later fluently retrieve the stored information (e.g., concepts, ideas, items, names) through association.”

- Taking in and storing a variety of information (e.g., ideas, names, concepts) in mind and then retrieving it easily and quickly at a later time using association (Mascolo, 2015).
- Retrieval fluency as well as rapid automatic naming (RAN; i.e., naming facility or speed of lexical access) - which is associated with reading fluency - are components of Glr.
- Does not represent what is stored in long-term memory or what a person knows; rather, it is the process of storing information and then retrieving that information (e.g., “tip of the tongue” - difficulty retrieving something that is known) (Mascolo, 2015).

Link to Achievement: **READING/WRITING**

Students who have difficulty naming objects or categories of objects rapidly may have difficulty in reading. Associative memory abilities also play a role in reading achievement (i.e., being able to associate a letter shape to its name and its sound). Deficits in Glr could impact reading and writing fluency (rate).

Short-term Memory (Gsm)

“The ability to apprehend [or encode] and hold information in immediate awareness and then use it within a few seconds” (Mascolo, 2015).

- *For example: Holding a phone # in mind long enough to dial the number; holding onto a thought/idea long enough to write it down*

Working memory (Gwm): Part of short-term memory system; Involves temporarily storing and manipulating or transforming information to use it in some way; requires divided attention and the management of the limited capacity resources of short term memory (Mascolo, 2015).

Link to Achievement: **READING/WRITING**

Reading comprehension (understanding what is read) involving long reading passages may be affected by skills related to working memory. Basic word reading and/or decoding may be impacted by deficits in short-term memory because it may interfere with acquiring letter and word identification skills and could impact student’s ability to hold letters/sounds in memory for encoding/spelling. Difficulties in short-term memory may lead to a hard time following directions, understanding long reading passages (read-alouds), spelling, sounding out multi-syllabic words (decoding), orally re-telling or paraphrasing what is read, taking notes. Mnemonics may be a helpful strategy to teach students with memory difficulties.

Visual Processing (Gv)

“Visual Processing is the ability to generate, perceive, analyze, synthesize, manipulate, transform, and think with visual patterns and stimuli.”

- Thinking about visual patterns and visual images
- Orthographic processing (i.e., Gv using letters / sub-word sound units) may be included in this domain.
- *For example: What is the shortest route from the main office to the classroom? What would this shape / letter / word look like if turned upside down or rotated? Putting together puzzles, interpreting a chart or graph in a textbook, etc.*

Link to Achievement: **READING/WRITING**

Students with deficits in this area may have difficulty decoding or spelling words correctly; they may confuse word patterns and have difficulty with word study.

Processing Speed (Gs)

“Processing speed refers to an individual’s ability to perform simple clerical 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 complete simple tasks that require simple decisions” (Flanagan, 2014; Mascolo, 2015).

- Involves sustained/focused and selective attention.

Link to Achievement: READING/WRITING

Processing speed may impact reading and/or writing fluency.

Auditory Processing (Ga)

“Auditory processing refers to the ability to perceive, analyze, and synthesize a variety of auditory information (e.g., sounds).” (Flanagan, 2014; Mascolo, 2015)

Examples: Listening to words with missing letters, but saying the correct word (e.g., hearing “-aby” and saying “baby”)

Includes: Phonetic coding or phonological awareness; phonological processing

Link to Achievement: READING/WRITING

Students who have deficits in auditory processing skills may experience difficulty with letter-sound correspondence and decoding words (familiar and unfamiliar). Deficits in phonetic coding/phonological awareness may impact spelling skills, basic writing skills and written expression.

Progression of Ga / phonological awareness



Phonological Awareness versus Phonics

Phonological Awareness (includes phonemic awareness):

- ◆ Focus is on ability to identify and manipulate the sounds in spoken words
- ◆ Mastery supports pre-reading skills
- ◆ Practice is auditory

Examples:

- Alliteration, rhyme, words, syllables
 - What word sounds like *cat*?
 - What sound do you hear at the beginning of *cat*?

Phonics:

- ◆ Focus is on orthographs (letters) in written words (1:1 correspondence between letters and sounds)
- ◆ Mastery supports reading skills
- ◆ Practice is visual

Examples:

- I before e except after c... or,
- “ph” says /f/

Examples of Phonological Processing Skills

- Blending
- Segmentation
- Deletion
- Word or Auditory Discrimination
- Sound substitution and Sound isolation
- Rapid Naming

Blending

*The ability to build words from individual **sounds** by **blending** the **sounds** together in sequence.*

Examples:

/k/ /a/ /t/= "cat"

Phonological Blending subtest on the TAPS-3 / Blending Words on CTOPP-2 / etc.:

"/s/ (pause) /a/ (pause) /t/.
What's the word?"

Deletion

The ability to manipulate syllables and phonemes.

Examples:

Deleting syllables

Phonological Processing subtest -
Deletion task on the DAS-2:

*Say **rainbow**, now say **rainbow** again,
but don't say **bow**. ("rain")*

Deleting phonemes:

Elision subtest on the CTOPP-2:

*Say "**top**" without the /t/ sound.
—— ("op")*

Auditory Discrimination

The ability to recognize and discriminate differences in phonemes and similarities between word pairs.

Example:

Word Discrimination subtest on the TAPS-3:

“Are these words the same word or different words?”

MIKE (pause) **MIGHT** (pause)

Rapid Naming

The ability to rapidly or automatically name pictured items, numbers, and/or letters.

Example:

Rapid Naming Subtests on
CTOPP-2, WISC-V, WJ-IV

Say the names of these letters /
numbers / colors / objects as fast
as you can.

What is a significant processing deficit?

How are disabilities
or classifications derived?

Discussion.

Relating #s and Words to the Classroom: Common Recommendations for Supporting Students with Dyslexia

Recommendations* that may be suggested:

If needed, based on the student's cognitive profile of strengths and areas of needed development:

- Explicit & systematic instruction and multisensory experiences to develop phonemic awareness and decoding/encoding skills
- Opportunities to discuss reading assignments before attempting to read independently
 - Pre-teach new / important concepts
- Audiobooks (with text to follow along with audio) and/or text-to-speech software
- Simplify directions with keywords for important ideas or concepts
- Providing copies of notes or skeleton notes so student can follow along during instruction
- Show models or examples of correct work
- Consider keyboarding/word processing for written assignments, which would also allow for spell-check; Consideration should be given to grading content, rather than spelling, whenever possible
- Consider providing alternative ways of responding or allow understanding to be demonstrated in different ways (e.g., oral response to supplement written assessments, multiple choice, sentence starters, videos, etc.)
- Personal word wall of high frequency words; letter strip for easy reference; visual reminders of letter orientation
- Graphic organizers to support organization of written assignments and comprehending reading passages/text
- Reduce the amount of information on a page, such as limiting the number of word problems or items on a page
- Highlight key information so that it is easier to find when looking back; highlight sight word vocabulary in newspapers, articles, or magazines to help increase sight word recognition
- Associate or link concepts learned or vocabulary/sight words learned to something that is meaningful to him/her to help with memory and retrieval
- Extra time for reading and writing assignments
- Etc., etc., etc.!!! (based on individual student's cognitive profile and learning needs!)

*Instruction and/or Accommodations

Review

<https://jeopardylabs.com/play/review9426>

In your experience...

**What one word or concept do
you wish were better
explained?**

Questions?

References

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