What is the WRAT5?

• The WRAT5 is an efficient, easy to administer and psychometrically sound assessment of foundational academic skills.

• A norm-referenced test that measures:
  • Word reading
  • Sentence comprehension
  • Spelling
  • Math computation

A tool for what purpose?

• Supports the evaluation process for estimating strengths and weaknesses relevant to:
  • Learning
  • Job-readiness
  • "Functional" academic skills

• Uses beyond the school setting

• Considered a "screener": not comprehensive
### Administration and Scoring Options

**• Administration:**
1. Paper and pencil
2. Q-interactive

**• Scoring Options:**
1. Hand scoring and Q-global™ (Dec, 2017)
2. Q-interactive (Coming Soon)

**• Scores Available:**
1. Standard scores, percentile ranks, stanines, normal curve equivalents, grade equivalents, and Growth Scale Values (GSVs)

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### WRAT4 vs. WRAT5

#### 1. New norms - Updated with new data reflecting current populations based on recent census information

#### 2. Improved identification of learning disabilities
   - Ability Achievement Discrepancy Analysis – New
   - PSW Analysis – New (with Digital Scoring)
   - Validity studies targeting LD reading and LD math

#### 3. Streamlining of rules - Grade based start points, simple reversal rules and clear discontinue rules make sure you focus on the items that need to be administered

#### 4. Digital administration, scoring and reporting

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### WRAT4 vs WRAT5 (cont.)

#### 5. Addition of Q-global scoring - Helps you quickly and efficiently organize examinee information, generate scores, and produce accurate, comprehensive reports

#### 6. Addition of Q-interactive administration and scoring - A comprehensive digital system that can be used to administer and score the complete WRAT5.

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### WRAT4 vs WRAT5 (cont.)

#### 7. Subtest improvements
   - Math Computation subtest now covers a wider range of domains
   - New Sentence Comprehension subtest items
   - Shortened and simplified context sentence prompts for spelling
   - Added lowercase letters and allowed letter sounds as correct responses on Letter Reading

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### Standardization

- Standardized on national grade- and age-based samples:
  - Each with over 2000 individuals.
  - Scores were developed for:
    - grades K–12
    - ages 5–85+

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### Reliability & Validity

- **Internal reliability coefficients:** Average subtest and Reading composite reliabilities range from very good (upper .80s) to excellent (.90s)

- **Validity** determined from the content and structure of the test battery, studies with special groups of individuals, and correlations with other widely used achievement and cognitive ability measures.
  - Clinical samples (Gifted, Intellectual Disability, LD Reading, LD Math)
  - Correlations with achievement tests (WRAT4, WIAT-III)
  - Correlations with ability tests (WISC-V, WASI-II)
Test Structure

- Derived scores and interpretive information for four subtests:
  1. Word Reading
  2. Sentence Comprehension
  3. Spelling
  4. Math Computation

- Reading Composite Score

WRAT5 Subtests

1. **Word Reading** measures untimed letter identification and word recognition. The examinee reads aloud a list of letters or words.

2. **Sentence Comprehension** measures the ability to identify the meaning of words and to comprehend the ideas and information in a sentence using an untimed modified cloze procedure. Each item requires the examinee to read (aloud or silently) a sentence with a word or two missing, and then provide a response to effectively complete the sentence.

WRAT5 Subtests

3. **Spelling** measures an individual's ability to write letters and words from dictation without a time limit.

4. **Math Computation** measures an individual's ability to count, identify numbers, solve simple oral math problems, and calculate written math problems with a time limit. Problems are presented in a range of domains, including arithmetic, algebra, geometry, and advanced operations.

WRAT5 Composite

- A **Reading Composite score** is created by combining the Word Reading and Sentence Comprehension standard scores.

Applications
WRAT5

WRAT Uses: Screening for...
1. Identification of people at-risk for learning disabilities
2. Academic skills in reading, writing, math
3. Educational placement
4. Data contributing to a neuropsychological or psychoeducational evaluation
5. Determination of disability
6. Assistance for determining skill set (acquired vs. emerging skills)
7. Premorbid functioning (various conditions)
8. Use in a forensic evaluation
9. Growth/change over time
10. Vocational training or job placement
11. Level of care and home support services

Historical Viewpoints:
Why have people chosen to use WRAT for so long?
- The WRAT-R has strong normative data
- Normed on 5,600 individuals with these demographic variables accounted for: age, geographic region, sex, race, and metropolitan/nonmetropolitan area.
- The WRAT-R shown to be a good estimate of premorbid verbal intelligence for lower functioning patients, which is at higher risk for TBI (Kraus et al., 1984).

Neuro application
- Use as a "hold test": tap abilities resistant to cognitive declines following neurological damage.
- "Hold-don't hold" methods:
  - Estimate premorbid ability based on the individual's current performance on a measure that is considered to be relatively resistant to neurological impairment.

Why use the WRAT?
Reading Nuances
- Includes both regularly and irregularly spelled words
- Organized based on item difficulty
- Many early/easy items are sight words (irregular)
- Word Reading tests (Willshire et al., 1991):
  1. Reading is highly correlated with intelligence level in the general population;
  2. Reading ability is more resistant to dementia than is the WAIS Vocabulary subtest;
  3. The reading of irregular words is more resistant to cognitive decline than is reading of regular words;
  4. Word reading taps previous knowledge while minimizing the demands on current cognitive capacity.

Contributing to a Battery
- The WRAT5 can serve as part of a comprehensive psychoeducational or neuropsychological test battery to enhance understanding of an individual's total functioning.
- Academic achievement part of battery including:
  - Cognitive ability/impairment
  - Personality
  - Speech and language development/impairment
  - Fine and gross motor skills

Testing Large Populations
- Because it's brief...
  - Useful for estimating the educational achievement of large, where administering long tests may be impractical.
  - The Math Computation and Spelling subtests can be administered in small-group test sessions.
Application Outside of Schools

- Military recruits
- Prisoners
- Patients in a hospital
- Applicants to industry training programs
- Juvenile delinquents awaiting court hearings

Review of Features and Benefits

1. Subtests
2. Time-efficient
3. Easy to administer and score
4. Wide age range of administration
5. Progress Monitoring
6. Flexible Administration
7. Reliable…Valid

The Value of the WRAT5 in Clinical and Educational Settings:

1. Efficiency
2. Ease of Administration
3. Psychometrically Sound
4. Flexible

Norm-referenced test that measures word reading, sentence comprehension, spelling, and math computation

Application in S/L and OT Spheres

- How (much) does disability affect client's ability to…?
- Do client's academic skills (reading, writing, math) affect their ability function independently?
  - Pay bills, write emails, read prescriptions, read the news...
- What level of support does client need to function independently?
  - Continuum of care: Rehab to Home

Q: Why should I move from the WRAT4 to the WRAT5?

A: The WRAT5 offers you new norms, access to digital administration, scoring and reporting, improved identification of learning disabilities, streamlining of rules and subtest improvements.

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