

Wide Range Achievement Test, 5th Edition

Overview & Applications

Adam Scheller, Ph.D.
Senior Educational Consultant
Pearson



WRAT5 Agenda

Background
Overview
Test Structure
Applications



Background

Authors: Gary S. Wilkinson, PhD, Gary J. Robertson, PhD

History: WRAT: 1946 with 1978 Norm Up.
WRAT-R: 1984
WRAT3: 1993
WRAT4: 2006



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 "screeener": not comprehensive



Test Overview

- Qualification Level: **B**
- Age Range: Individuals **5 - 85+** yrs.
- RTI Tiers: RTI Levels **2 / 3**
- Completion Time:
 - Ages 5-7 yrs.: approx. **15-25** minutes
 - Ages 8 yrs. and up: approx. **35-45** minutes

WRAT5™

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)

 7

WRAT5™

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**

 8

WRAT5™

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.

 9

WRAT5™

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

 10

WRAT5™

Standardization

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

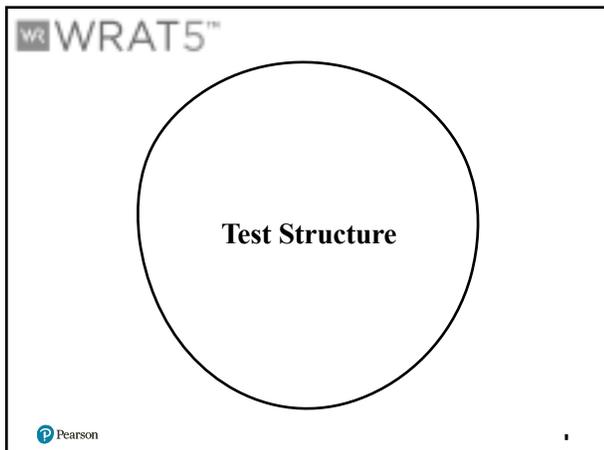
 11

WRAT5™

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)

 12



WRAT5™

Test Structure

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

Pearson

WRAT5™

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

Pearson

WRAT5™

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

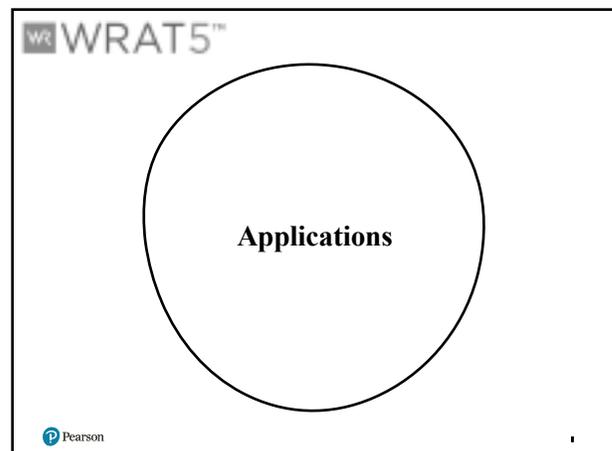
Pearson

WRAT5™

WRAT5 Composite

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

Pearson



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

 19

WRAT5™

**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).

 20

WRAT5™

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.

 21

WRAT5™

**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.

 22

WRAT5™

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

 23

WRAT5™

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.

 24

WRAT5™

Application Outside of Schools

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

 Pearson 25

WRAT5™

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

 Pearson 26

WRAT5™

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

 Pearson 27

WRAT5™

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

 Pearson 28

WRAT5™

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.

 Pearson 29

US Customers:
www.pearsonclinical.com

Canadian Customers:
www.pearsonclinical.ca

Adam Scheller, Ph.D.
adam.scheller@pearson.com
Senior Educational Consultant
Pearson Clinical Assessment

 Pearson 30