STEC Guidance Woodcock-Johnson IV (WJ IV) Tests of Oral Language	
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Test Content: what tests does it include and what do they measure/evaluate?

What is its purpose or design?

WJ IV OL is part of a suite of 3 batteries which are co-normed and have been designed to provide a comprehensive assessment of cognitive abilities, attainment and oral language skills. The other batteries in the suite are WJ IV Test of Cognitive Abilities (WJ IV COG) and WJ IV Tests of Achievement (WJ IV ACH) but the manual states that the WJ IV OL can be used independently of the other two. All three are based on Cattell-Horn-Carroll (CHC) theory of cognitive abilities.

The WJ IV OL is designed to "*measure areas of oral language, including listening comprehension, oral expression, phonetic decoding, speed of lexical access, vocabulary, and auditory memory span*……." It goes on to state that it "*provides an oral language ability/achievement procedure for determining if an individual has a discrepancy between oral language ability and predicted achievement levels*" p2 Examiner's Manual.

The Examiner's Manual states that it is rarely necessary to administer all the tests in the battery and that the examiner should use the tests selectively according to the needs of the assessment.

The subtests

There are 12 tests; 9 that are administered in English and 3 parallel tests in Spanish. If tests 1 -8 are all administered p21 of the Examiner's Manual states that the average time taken is about 40 minutes. "*Because Test 9 Sound Awareness is a screening test for a limited age range, it most likely will not be administered routinely.*" p21 Examiner's Manual.

The tests include:
Test 1: Picture Vocabulary
The student identifies pictured objects, either by pointing to the picture that depicts a specific word, or by giving the name of the pictured object. Measures oral language development and lexical knowledge. Parallel form available in Spanish (Test 10).

Test 2: Oral Comprehension
The student listens to sentences or short passages from an audio recording and orally supplies a missing word – oral cloze procedure. Measures ability to comprehend short passages using listening, reasoning and vocabulary abilities. Items cannot be repeated, but maximum length of items is 3 sentences. Complexity is introduced through more advanced vocabulary and complex sentence structures. Parallel form available in Spanish (Test 11).

Test 3: Segmentation
Student listens to a word then breaks it down into syllables or individual sounds. Measures phonetic coding skill in breaking apart speech sounds within words.

Test 4: Rapid Picture Naming
Student names as many pictures of objects as possible within a 2-minute time limit. Measures rapid naming facility and speed of lexical access.

Test 5: Sentence Repetition
Student repeats words, phrases and sentences presented on an audio recording. Measures short-term working memory, specifically auditory memory span. Also requires listening ability.

Test 6: Understanding Directions
Student listens to a sequence of instructions given in an audio recording then follows these to point to specific objects in a picture. Measures short-term working memory for language. Also requires listening ability and comprehension knowledge, though the language is relatively simple. The test becomes more complex by increasing the number and complexity of the instructions rather than the complexity of the language. Parallel form available in Spanish (Test 12).

Test 7: Sound Blending
Student listens to a series of syllables or sounds and is asked to blend them into a word. Measures phonetic coding skill in synthesizing phonemes.

Test 8: Retrieval Fluency
Student names as many examples as possible from a given category in a 1-minute time limit. Three subtests each with a different category – all three have to be administered to achieve a score. Measures speed of lexical access, which requires fluency of word retrieval from stored knowledge.

Test 9: Sound Awareness
Two subtests measuring phonological abilities. Have to administer both tests to achieve a score.

9A Rhyming – student points to pictures that rhyme with a given word, or complete sentences with a word that rhymes with a picture. Quite simple one and two syllable words.

9B Deletion – student listens to a word on an audio recording and is asked to remove a specific syllable or sound from the word.
"The test can provide a screening of phonetic coding ability for students kindergarten through third grade or for older students with limited phonological awareness". p14 Examiners Manual.

Kit consists of:
- Examiner's Manual
- Examiner Training Workbook
- Easel
- Test Record forms
- PDF Technical Manual on a CD. Contains information about samples, standardisation procedures, validity and reliability. Does not provide raw score to standard score tables for scoring - this has to be done via the online scoring programme.
- Online Scoring and Reporting Programme (which also includes a digital version for remote assessment)
- Case with wheels.

What types of scores does it offer?
Standard Scores, Grade Equivalents, Age Equivalents, SEMs, Confidence Intervals, Percentiles, W Difference Scores, Discrepancy Scores.

Cluster (composite) scores are available for:
- **Oral Language** (Picture Vocabulary + Oral Comprehension)
- **Broad Oral Language** (Picture Vocabulary + Oral Comprehension+ Understanding Directions)
- **Oral Expression** (Picture Vocabulary + Sentence Repetition)
- **Listening Comprehension** (Oral Comprehension + Understanding directions)
- **Phonetic coding** (Segmentation + Sound Blending)
- **Speed of Lexical Access** (Rapid Picture Naming + Retrieval Fluency)

STRENGTHS:

Relevance to a diagnostic assessment

- More extensive exploration of oral language abilities than WIAT III, WRAT 5, KTEA3, or AAB. The Examiner's Manual (p63-64) states "*The importance of oral language cannot be overstated . . . When an individual has weaknesses in oral language abilities, academic difficulties are usually apparent . . . and the student may have a language impairment. On the other hand, when an individual has strengths in oral language, academic difficulties are typically unexpected and may be indicative of a specific learning disability. For example, if an individual has a strength in Test 2: Oral Comprehension but a weakness on a reading comprehension task . . . this suggests that the individual's reading problems are not due to underlying language difficulties. Further evaluation should explore other aspects of reading, such as competence in basic skills, as well as other oral language abilities such as phonemic awareness.* "

- The battery is not explicitly designed for identifying SpLDs, but a clinical validity study was done of the relationship between WJ IV scores and group membership status (e.g., would individuals who have previously been diagnosed with learning disabilities or individuals with intellectual disabilities receive a similar diagnosis on the basis of WJ IV scores). Selective tests from the cognitive abilities, oral language and achievement batteries, were administered to individuals aged 7- 17 with nine clinical diagnoses: gifted, intellectual disabilities (ID)/mental retardation (MR), learning disabilities (LD; reading, math, and writing), language delay, attention deficit/hyperactivity disorder (ADHD), head injury, and autism spectrum disorders (ASD). Sample size ranges from 12 to 79. Detailed information is provided about the results in the Technical Manual.

- P63-65 of Examiner's Manual offers helpful guidance on
    - A hierarchy of complexity for the oral language tests
    - Which WJIV ACH tests to compare specific WJIV OL subtests or clusters against.

- Two other tables on p67 and 71 offer guidance on useful comparisons to be made between various subtests within the WJIV OL, WJIV Ach and WJIV Cog.

- Test Record sheet has a Session Observation Checklist (with 4 or 5 levels to choose from per topic) for:
    - Level of conversational proficiency
    - Level of co-operation
    - Level of activity
    - Attention and concentration
    - Self-confidence
    - Care in responding
    - Response to difficult tasks

- May be useful for pupils/students with EAL but only if Spanish was their main language.

- Some tests could also be used to support Examination Access Arrangements e.g. As evidence for extra time in the cognitive processing section of F8s: Test 3: Segmentation, Test 4: Rapid Picture Naming, Test 5: Sentence Repetition, Test 7: Sound Blending, Test 8: Retrieval Fluency. However, for some school age pupils, test reliability is a little low for some tests e.g., Test 9 Sound Awareness (.70) There is also a cost per pupil.

Administration
- There is clear administration, marking and scoring guidance. Straightforward basals and ceilings. Administering the tests is relatively easy, though as with all tests, assessors need to familiarise themselves thoroughly with each subtest before administering it. The instructions for administering the tests are on the Easel and clear and easy to follow for the assessor and the student. There is only one form.

- No part of any subtests needs to be recorded, although it may be helpful to record Test 8: Retrieval Fluency to be able to check for repetitions.

- Test 1 Picture Vocabulary, Test 2 Oral Comprehension, Test 3 Segmentation, Test 5 Sentence Repetition, Test 7 Sound Blending, Test 9 Sound Awareness all specifically state not to penalize student for *"mispronunciations resulting from articulation errors, dialect variations or regional speech patterns."*

Time taken
- The Examiner's Manual states that the average time taken to complete all the subtests is about 40 minutes but it is rarely necessary to administer all the tests in the battery.

Scoring
- Raw scores are easy to calculate for most tests as the Test Record provides clear information on the correct answers.

- For each subtest the Test Record Sheet has a Scoring Table which allows examiner to translate the raw score into an estimated age equivalence (ages 0 - 18)

- Standard Scores are generated by entering raw scores into the online scoring platform which automatically generates a score report for the individual. This offers a range of score reporting layouts (including visual charts) and various combinations of scores.

- WJ IV normative data are based on a single sample that was administered the cognitive, achievement and oral language tests in 2014. Large sample which is representative of the US population in terms of geographical spread and age range, socio-economic backgrounds, ethnicity, gender. The sample includes a higher density of examinees in the school-age population. The authors explain this as reflecting the need to collect more concentrated data on examinees during the period of time when the abilities measured by the WJ IV undergo the greatest rate of growth.

- Validity appears to have been rated using the cluster scores rather than the individual test scores. Validity evidence is derived from various sources including CHC Theory, and the relationship of WJIV scores to other measures (including KTEAII and WIAT III). Construct validity correlations with KTEAII and WIAT III for the clusters generally range from 0.57 to 0.75. The main exception is Phonetic Coding which has a 0.38 correlation with KTEAII Phonological Awareness subtest. WJIV attributes this low correlation to considerable differences in the content and design of the subtests in these clusters compared to the KTEA II subtests.

- Reliability scores for each subtest are good, ranging from .70 to .94. Information about this is also included with the test descriptions in the Examiner's Manual.

ISSUES TO CONSIDER:

Relevance to a diagnostic assessment

- The rapid naming test uses pictures for all age groups, not letters or digits. In this it differs from CTOPP2 which chose to focus on letter and digit naming, limiting colour naming and object naming to 4–6-year-olds. P63 of the CTOPP2 Examiner's Manual states that "*performance on rapid naming tasks involving symbolic items such as digits and letters is more predictive of reading rates than is performance on rapid naming rates involving non-symbolic items such as colours and objects.*"
- Also, unlike other rapid naming tests, all the pictures in the WJIV OL rapid naming are in black and white and additional pictures to the ones in the sample are given throughout the test.
- Test 9, Sound Awareness, is described as a "screening test of phonological ability", designed primarily for use with students up to third grade. In a diagnostic assessment it would be best to evaluate phonological awareness either through
    - o the Phonological Processing tests in WJIV COG, and/or
    - o Test 3 Segmentation plus Test 7 Sound Blending

Administration

- In face-to-face assessments - the easel is quite small and the pages can be difficult to turn.

- For some tests it will be necessary to have the easel (or the student's screen) in a position where you can see clearly what the student is pointing at. With face-to-face assessments this may make administration complicated as the instructions are given on the reverse side.

- The Rapid Picture Naming test has a number of pages and it is necessary to turn the pages of the Easel during the timed administration. This could affect the score as the pages can get stuck on the metal hoops. A digital version of the test is provided for remote assessment, and assessors doing face to face assessments may wish to use this version rather than the easel if they are struggling with turning the pages (though this would need to be noted in the report).

- Some tests require headphones and audio equipment - tests 2, 5, 6, 7, 8 and 9.

- There is only one record form, no alternative forms are available.

Scoring

- No norm tables are available. Standard scores can only be calculated by using the online scoring platform.
- Online scoring platform - some of the report layouts can be busy and confusing.

Suitability of items for the UK

Some Americanisms could make the test items difficult to administer, e.g.

- **Test 1: Picture Vocabulary** – some of the pictures are culturally quite American. Should be recognisable to UK citizens who have been steeped in UK culture and US films, but may be less recognisable to those less familiar with them. e.g., No. 38: No. 44:
- **Test 2: Oral comprehension –** in some items the vocabulary may be less familiar to UK students, or the list of correct responses does not include the typical UK word: e.g., No. 2: No. 7: No.14: No. 17: No. 23: No. 24: No. 26:
- **Test 6: Understanding Directions** e.g. Some of the pictures are culturally quite American and some words may be different to standard UK versions e.g., Pictures 2 and 5