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Wechsler Individual Achievement Test®
Second Edition

Interpreting Performance on the Reading Comprehension Subtest

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Interpreting performance on the Reading Comprehension subtest of the *Wechsler Individual Achievement Test®–Second Edition* (WIAT®–II, Update 2005) is challenging for some examiners, particularly when a student must reverse to a preceding item set. A hypothetical case example is provided to assist examiners in interpreting the results of this subtest and creating an effective instructional plan.

On the Reading Comprehension subtest, students read a sentence or passage and then answer questions to measure their comprehension. Each WIAT–II passage (and item set) is composed of questions designed to measure a variety of comprehension skills. Each item set includes several types of factual and inferential questions, which simulate comprehension questions teachers ask students to demonstrate their understanding of reading materials. As a result, the types of questions included in each item set do not uniformly increase in difficulty. Nor do comprehension questions measure increasingly complex skills from one item set to the next. A sampling of the same literal and inferential comprehension skills are distributed within and across item sets. This design, which differs in part from the designs of many other reading comprehension tests, enables a student to demonstrate reading comprehension skills on passages at a lower readability level and controls for potentially confounding weaknesses in word identification and vocabulary knowledge. Consequently, the WIAT–II Reading Comprehension subtest becomes a “purer” measure of reading comprehension.

Readability

The passages within an item set cover a range of reading difficulty, from approximately one to three grades below the target grade to one to two levels above the target grade. Therefore, it is not accurate to

assume, for example, that the reading difficulty of all passages in the grade 8 item set is at an eighth grade level. It is also important to consider that readability levels are rough estimations, not precise indicators, and texts of a specific readability grade level on any assessment may not be commensurate with the reading materials used in classrooms at that grade level.

Readability formulas often are used to estimate reading ease by producing scores that describe text in terms of the grade level of reading skill required to easily read the text. Readability formulas often differ from each other in the estimated reading level because some formulas estimate best at a specific range of grade levels and because the formulas measure different features within text, such as average number of syllables, average sentence length, and/or number of unfamiliar words. For this reason, the readability levels of the WIAT–II reading comprehension materials, as shown in Tables 1 and 2, are approximate estimations based upon several readability formulas, including Dale-Chall (1995), Spache (1974), and Fry (1977). Although readability levels are not precise indicators, the relative readability levels of item sets can be meaningfully compared. When the reverse rule is followed, as specified in the Reading Comprehension subtest, the readability level of the texts is reduced by approximately two to four grade levels, on average.

Reading Comprehension Performance

When a student performs poorly on reading comprehension items with grade-level passages, it must be determined whether the student has a weakness in word identification skills, reading vocabulary, reading comprehension skills, or some combination of these. The first step is to allow the student to reverse to an item set with skill coverage that is comparable to the grade-appropriate item set,

but with passages at a lower readability level, placing fewer demands on word identification and vocabulary skills.

If the student performs poorly on the preceding (lower) item set, then it is likely that the student has a weakness in the area of reading comprehension, and further assessment, error analysis, and intervention in this area should be pursued. On the other hand, if the student performs well on the preceding item set, the examiner may rule out reading comprehension as the area of weakness. It is important for the examiner to complete an error analysis to identify how word

identification and vocabulary difficulties may have affected the student’s ability to comprehend written material at the grade-appropriate start point. The examiner may want to examine the student’s performance on reading text aloud and defining words. The student’s performance on the WIAT-II Word Reading and the Listening Comprehension (Receptive Vocabulary) subtests should be evaluated in conjunction with the error analysis results to determine if intervention should include work in one or both of these areas.

Case Examples

Student A, an eighth grader, scores 0 points on all of the reversal items in the grade 8 item set. Per the reverse rule, the examiner reverses three start points (not grade levels) and administers the grade 4 item set. Student A receives a raw score of 46 out of a maximum of 60 points. A raw score of 46 on the grade 4 item set corresponds to a weighted raw score of 135 and a standard score in the average range: Fall: 96; Winter: 94; Spring: 91.

Student B, also in the eighth grade, completes the grade 8 item set and receives a raw score of 34 out of a maximum of 68 points. A raw score of 34 on the grade 8 item set corresponds to a weighted raw score of 132 and a standard score in the average range: Fall: 93; Winter: 91; Spring: 89.

In this example, Student A, who did not correctly answer any of the reversal items in the grade-appropriate item set, receives a comparable—and even a slightly higher—standard score than Student B, who earned half of the total possible points on the grade-appropriate item set and did not need to reverse to a previous item set. These results may seem conflicting because Student A performed poorly on the grade-appropriate item set, which indicates a potential weakness, yet the student received a standard score in the average range. Closer evaluation, however, reveals that the results are an accurate reflection of the reading comprehension skills of both Student A and Student B.

Interpretation

The difficulty of items on the Reading Comprehension subtest is determined by both (a) the readability level of the passages and (b) the reading comprehension skills measured by each item. As the item-level skills analysis indicates, the subtest items measure a range of reading comprehension skills within each item set. With the exception of the grade 1 item set, which measures qualitatively different skills than all subsequent item sets, the skills are well-distributed and do not increase in difficulty across item sets. However, word identification and reading vocabulary demands do increase across item sets, as indicated by the readability levels of the texts.

Student A’s Performance

Student A began at the grade 8 start point and scored 0 points on the reversal items after reading the first passage, How California Came to Be. As shown in Table 1, the readability level of this passage is approximately grade 7. According to the WIAT-II skills analysis, the reversal items were composed of two literal questions (recognizing stated detail) and four inferential questions (contextual word meaning, making inferences, and drawing conclusions).

Table 1: Performance on Grade 8 Start Point Reversal Items

Items	Literal	Inferential	Student A Performance	Reading Material	Readability Level
75-80	2	4	0 Points	How California Came to Be	7

Following the reverse rule, Student A was administered the grade 4 item set, which includes four passages and six sentence and paragraph items. As shown in Table 2, the readability levels range from approximately grade 3 to 6. According to the WIAT-II skills analysis, the items that correspond to the first passage, Crickets, include two literal questions

(recognizing stated detail) and four inferential questions (contextual word meaning, making inferences, and identifying fact or opinion). Student A scored 10 of 12 possible points on the Crickets set of items, which measures highly comparable reading comprehension skills to the reversal items on the grade 8 item set.

Table 2: Performance on Grade 4 Item Set

Items	Literal	Inferential	Student A Performance	Reading Material	Readability Level
34-49	2	4	10 Points	Crickets	3
40-41	1	4	2 Points	"Venus" Sentence	7
75-80	2	4	4 Points	"Rabbit" Sentence	7
75-80	2	4	8 Points	Good Neighbors	7
75-80	2	4	1 Point	"Popcorn" Paragraph	7
75-80	2	4	2 Points	"Little Dog" Paragraph	7
75-80	2	4	7 Points	Toontime Tees	7
75-80	2	4	8 Points	How to Make Gobbledeeglu	7
75-80	2	4	0 Points	"Model Assembly" Passage	7
75-80	2	4	4 Points	"John" Passage	7
			Raw: 46 Points		

An error analysis of the Reading Comprehension items confirms that the student performed poorly on items that required oral reading, word identification, and giving definitions. In addition, Student A's performance on the Word Reading subtest was well below average. Student A's performance on the Listening Comprehension subtest was in the average range, with success on Sentence Comprehension and Receptive Vocabulary. Student A answered almost all of the Receptive Vocabulary items correctly, but struggled with Expressive Vocabulary. These results suggest average general comprehension skills with a weakness in word retrieval/lexical access ability. To investigate this hypothesis, the examiner administered the WIAT-II Oral Expression subtest and found that the student performed well on all components of the subtest except Word Fluency. The two Word Fluency items were extremely difficult for Student A, who

expressed a high level of frustration during and after each item. A plan for intervention was developed to include instruction to improve lexical access, improve single word and contextual reading fluency, teach decoding strategies, and build sight word reading vocabulary, while providing opportunities for Student A to utilize her/his strengths in comprehension and receptive vocabulary.

Unlike Student B, who demonstrates average reading comprehension skills of materials approximately on grade level, Student A demonstrates average reading comprehension skills when the readability demands of the passages are reduced. Both students demonstrate average reading comprehension skills, and neither shows evidence of a reading comprehension weakness; however, Student A demonstrates a weakness in word identification and word retrieval that interferes with the reading

and comprehension of grade-appropriate material, whereas Student B does not.

When assessing a student's reading comprehension skills to determine the presence of a learning disability, the need for special education services, or to plan intervention, it is important to differentiate weaknesses in reading comprehension from weaknesses in word identification, vocabulary, and other reading-related skills. In evaluating a student's performance on the WIAT-II, the examiner should evaluate the task demands of each subtest, consider the skills measured by the items, and integrate multiple sources of information across subtests to better understand the specific nature of a reading problem and plan the most appropriate intervention.

When reporting results in which the student reversed to a preceding item set, the examiner should communicate to parents, teachers, and other relevant

school team members the ways in which the WIAT-II (Update 2005) Reading Comprehension score differs from scores on many other reading achievement tests. The examiner may wish to include this information in the description of the WIAT-II subtest in the report, as a footnote in the table(s) of test scores, and in the presentation and discussion of the test results. Otherwise, persons reading the report are likely to assume that the WIAT-II (Update 2005) Reading Comprehension score reflects reading comprehension skills with grade-level text rather than reading comprehension skills at a lower reading grade-level. As with any other assessment instrument, it is important for examiners to clearly explain and report the task demands and skills measured by the WIAT-II (Update 2005) Reading Comprehension subtest to fully utilize its informative diagnostic characteristics and prevent readers from misinterpreting the test results.

References

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