Interpretive Report

Developed by
Jack Martin, PhD, Gary S. Wilkinson, PhD, and PAR Staff

General Information

Name: Sample Client
Gender: Female
Grade: 8th
Date of Test: 09/19/2005
School: Centennial Junior High School
Date of Birth: 03/18/1991
Age: 14 years, 6 months
Ethnicity: Caucasian/White
ID: 12345-67890

Form Administered: Blue

Use of this Interpretive Report requires a complete understanding of the Wide Range Achievement Test, Fourth Edition (WRAT4) subtests and composite scores, and its interpretation, applications, and limitations as presented in the WRAT4 Professional Manual. Examiners should refer to the Professional Manual for information about the psychometric characteristics of the WRAT4. It is important to note that grade equivalency scores must be interpreted with some caution as they may not produce actual instructional levels but instead reflect the performance of students who were assessed while in that particular grade.

This report should be used as only one source of information about the individual being evaluated. In this respect, no decisions should be based solely on the information contained in this report. The scores and interpretive statements contained in this report should be integrated with other sources of information when making decisions about this individual. This report is confidential and is intended for use by qualified professionals who have sufficient knowledge of psychometric testing and of the WRAT4. *This report should not be released to the respondent or to any individuals who are not qualified to interpret the results.*
Overview

Sample is a 14-year-old female in 8th Grade at Centennial Junior High School. She was administered subtests from the Blue form of the WRAT4 on 09/19/2005. The WRAT4 is a reliable norm-referenced test that has been standardized to assess core academic abilities in basic reading, spelling, comprehending sentences, and math computation. In the following sections of this report Sample's performance on the WRAT4 subtests and composite will be compared to her grade peer group from the normative population to help determine if any interindividual discrepancies are present. In addition, Sample’s scores also will be compared to each other to aid in determining if any intra-achievement differences exist. It is important to note that the standard scores presented in this report are based on a mean of 100 and a standard deviation of 15. Concerns will be identified as they were noted on 09/19/2005.

<table>
<thead>
<tr>
<th>Subtest/Composite</th>
<th>Raw Score</th>
<th>Standard Score</th>
<th>Confidence Interval 95%</th>
<th>%ile Rank</th>
<th>Grade Equiv.</th>
<th>NCE</th>
<th>Stanine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Reading</td>
<td>59</td>
<td>115</td>
<td>107 - 122</td>
<td>84</td>
<td>11.9</td>
<td>71</td>
<td>7</td>
</tr>
<tr>
<td>Sentence Comprehension</td>
<td>46</td>
<td>119</td>
<td>111 - 126</td>
<td>90</td>
<td>12.5</td>
<td>77</td>
<td>8</td>
</tr>
<tr>
<td>Spelling</td>
<td>37</td>
<td>102</td>
<td>92 - 112</td>
<td>55</td>
<td>8.9</td>
<td>53</td>
<td>5</td>
</tr>
<tr>
<td>Math Computation</td>
<td>35</td>
<td>89</td>
<td>79 - 100</td>
<td>23</td>
<td>5.7</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>Reading Composite*</td>
<td>234</td>
<td>118</td>
<td>111 - 124</td>
<td>88</td>
<td>N/A</td>
<td>75</td>
<td>7</td>
</tr>
</tbody>
</table>

* Reading Composite Raw Score = Word Reading Standard Score + Sentence Comprehension Standard Score.

Subtest and Composite Summary

Word Reading

The Word Reading subtest measures decoding skills through letter and word recognition. Sample attained a standard score of 115 which is within the Above Average range. A standard score of 115 is equivalent to a percentile rank of 84. This means that 84% of students in the standardization sample obtained a standard score at or below 115 on the Word Reading subtest. Based on the standard score, Sample obtained a NCE of 71 and a Stanine score of 7. Her performance on the Word Reading subtest is also comparable to the average score of students in the standardization sample who were in the 9th month of Grade 11. It is important to note that grade equivalency scores must be interpreted with some caution as they may not produce actual instructional levels but instead reflect the performance of students who were assessed while in that particular grade.

Sentence Comprehension

The Sentence Comprehension subtest uses a modified cloze procedure to measure the ability to gain meaning from words and to comprehend ideas contained in sentences. It can be added to the reading area to enhance the scope of the content measured and to explore one’s inferential
ability to seek a level of understanding required in reading comprehension. Sample attained a standard score of 119 which is within the Above Average range. A standard score of 119 is equivalent to a percentile rank of 90. This means that 90% of students in the standardization sample obtained a standard score at or below 119 on the Sentence Comprehension subtest. Based on the standard score, Sample obtained a NCE of 77 and a Stanine score of 8. Her performance on the Sentence Comprehension subtest is also comparable to the average score of students in the standardization sample who were in the 5th month of Grade 12.

**Spelling**

The Spelling subtest utilizes a dictated spelling format to measure the ability to encode sounds into written form as letters or words. Sample attained a standard score of 102 which is within the Average range. A standard score of 102 is equivalent to a percentile rank of 55. This means that 55% of students in the standardization sample obtained a standard score at or below 102 on the Spelling subtest. Based on the standard score, Sample obtained a NCE of 53 and a Stanine score of 5. Her performance on the Spelling subtest is also comparable to the average score of students in the standardization sample who were in the 9th month of Grade 8.

**Math Computation**

Math Computation involves counting, identifying numbers, solving simple oral problems, as well as calculating written math problems. Each of these require various operations which allow for the measurement of Sample’s performance in basic mathematical computations. Sample attained a standard score of 89 which is within the Below Average range. A standard score of 89 is equivalent to a percentile rank of 23. This means that 23% of students in the standardization sample obtained a standard score at or below 89 on the Math Computation subtest. Based on the standard score, Sample obtained a NCE of 35 and a Stanine score of 4. Her performance on the Math Computation subtest is also comparable to the average score of students in the standardization sample who were in the 7th month of Grade 5.

**Reading Composite**

This involves a calculation from the Word Reading and Sentence Comprehension subtests which provides a more reliable and comprehensive measure of overall reading achievement. Sample attained a standard score of 118 which is within the Above Average range. A standard score of 118 is equivalent to a percentile rank of 88. This means that 88% of students in the standardization sample obtained a standard score at or below 118 on the Reading Composite. Based on the standard score, Sample obtained a NCE of 75 and a Stanine score of 7. It is important to note that Grade Equivalency scores are not reported for the Reading Composite.

**Score Comparison Summary**

Sample’s scores on each of the administered subtests should be compared with other measures of core achievement skills, intellectual abilities, and behavioral information to provide a more comprehensive picture of her academic requirements. It is also important to compare Sample’s performance on each WRAT4 subtest to all other administered subtests. The following sections of the report provide a Standard Score Profile which can be used to visually examine any score difference, a Standard Score Comparison Table which provides information regarding the significance and prevalence of score
differences, and a Subtest Comparison section which describes each of the score comparisons and provides interpretation of these results.

A visual inspection of the Standard Score Profile will usually indicate when a more comprehensive analysis is needed. This decision will be based primarily upon whether or not the subtest confidence bands overlap on the profile. The confidence bands are the result of reliability measures and are based upon the standard error of estimate for each subtest. If all confidence intervals overlap, this indicates the performances in all assessed areas are essentially similar. It provides little evidence that more extensive investigation is required and the profile might be best explained by a single general classification of scores as being within the same relative range such as “average.” If one or more pairs of confidence intervals do not overlap, then a more detailed interpretation should be considered. This interpretative process must include relevant background factors and alternative sources of information about the individual and must not rely simply on a set of numbers derived from a test.

The statistical significance of any subtest score differences is included in the following section of this report. This significance level must be augmented by the prevalence rate which defines the extent to which such differences actually occurred in the standardization sample. This will lead to an informed decision about which differences are meaningful and worth further investigation. The decision may include the combination of additional standardized or criterion-referenced assessments, observations, and reports from multiple raters, or responses to attempted interventions, and the clinical judgment of experienced and knowledgeable professionals.
### Score Comparisons

<table>
<thead>
<tr>
<th>Subtest Comparison</th>
<th>Score Difference</th>
<th>Significance Level</th>
<th>Prevalence in Standardization Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Reading &lt; Sentence Comprehension</td>
<td>4</td>
<td>ns</td>
<td>&gt; 25%</td>
</tr>
<tr>
<td>Word Reading &gt; Spelling</td>
<td>13</td>
<td>ns</td>
<td>15%</td>
</tr>
<tr>
<td>Word Reading &gt; Math Computation</td>
<td>26</td>
<td>.01</td>
<td>10%</td>
</tr>
<tr>
<td>Sentence Comprehension &gt; Spelling</td>
<td>17</td>
<td>.05</td>
<td>20%</td>
</tr>
<tr>
<td>Sentence Comprehension &gt; Math Computation</td>
<td>30</td>
<td>.01</td>
<td>5%</td>
</tr>
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<td>&gt; 25%</td>
</tr>
</tbody>
</table>

### Subtest Comparisons

Each subtest has been compared to all other administered subtests to determine if a statistically significant difference exists and some consideration is given to the weaker of these subtests.

#### Word Reading and Sentence Comprehension

The standard score attained by Sample in the Word Reading subtest is less than the standard score attained in the Sentence Comprehension subtest, however they are not statistically different from each other. Specific error analysis between the Word Reading and Sentence Comprehension subtests may provide hypotheses to be investigated with data from additional standardized measures, observational impressions, and ratings from other sources to assist in program requirements.

#### Word Reading and Spelling

The standard score attained by Sample in the Word Reading subtest is greater than the standard score attained in the Spelling subtest, however they are not statistically different from each other. Specific error analysis between the Word Reading and Spelling subtests may provide hypotheses to be investigated with data from additional standardized measures, observational impressions, and ratings from other sources to assist in program requirements.

#### Word Reading and Math Computation

The standard score attained by Sample in the Word Reading subtest is greater than the standard score attained in the Math Computation subtest and they are statistically different from each other at the .01 significance level. The difference between these scores was found at the Prevalence Rate of 10% in the standardization sample. Thus, interpretations should include both statistical and practical considerations. The implication of this scoring pattern is that Sample has a weakness in her basic mathematical ability when compared to her core reading decoding skills.

#### Sentence Comprehension and Spelling

The standard score attained by Sample in the Sentence Comprehension subtest is greater than the standard score attained in the Spelling subtest and they are statistically different from each other at the .05 significance level. The difference between these scores was found at the Prevalence Rate of 20% in the standardization sample. Thus, interpretations should include both statistical and practical considerations. The implication of this scoring pattern is that Sample has a weakness in her ability to produce written letters or words from dictation when compared to her ability to gather meaning from printed words. Although a weakness was found when Sample’s standard score in the Spelling subtest was compared to her standard
score in the Sentence Comprehension subtest, it is important to note that her Spelling Standard Score of 102 is within the Average range.

**Sentence Comprehension and Math Computation**

The standard score attained by Sample in the Sentence Comprehension subtest is greater than the standard score attained in the Math Computation subtest and they are statistically different from each other at the .01 significance level. The difference between these scores was found at the Prevalence Rate of 5% in the standardization sample. Thus, interpretations should include both statistical and practical considerations. The implication of this scoring pattern is that Sample has a weakness in her ability to complete math calculations when compared to her ability to comprehend meaning from written words.

**Spelling and Math Computation**

The standard score attained by Sample in the Spelling subtest is greater than the standard score attained in the Math Computation subtest, however they are not statistically different from each other. Specific error analysis between the Spelling and Math Computation subtests may provide hypotheses to be investigated with data from additional standardized measures, observational impressions, and ratings from other sources to assist in program requirements.

**Recommendations**

Sample has scored below the average range in Math Computation. This should be noted as a sign for possible remedial considerations in this area. Available individual and group support systems may be considered in collaboration with teachers, aides, peers, and family sources to attempt to raise academic performances.

The standard score obtained on the Spelling subtest is within the average range for Sample. This indicates that Sample’s core academic skills in Spelling are comparable to other individuals in the same peer grouping. Age-appropriate materials should continue to provide continued chances for educational success.

Sample has scored above the average range in Word Reading, Sentence Comprehension, and Reading. This may be a sign that some academic strengths are evident. With other assessment and observational information, the extent of these advances may be discovered and nurtured with appropriate learning materials.

The statistical significance and prevalence rate of score differences are presented earlier in this report in the Score Comparison Summary section. Based on comparisons between all of the administered WRAT4 subtests, certain patterns of score differences can be obtained. If the score difference involves both subtests in the Average range or above, then it would seem appropriate to continue those educational practices that have been successful. If however, the lower of the two scores falls below the Average range, then some additional academic intervention may be appropriate. The following section consists of recommendations for standard scores that fell below the Average range ($\leq 89$) and were found to have a significant score difference (.05 significance level) when compared to another administered subtest.

The standard score in Math Computation is significantly lower than the standard score in Word Reading. A difference between these two core academic abilities suggests that other forms of evaluation are warranted in additional areas of math performance.
The standard score in Math Computation is significantly lower than the standard score in Sentence Comprehension. An item by item review of Sample’s math performance should give criteria to establish the next level of math instruction which can be shared with instructional staff.

More individualized suggestions may be present in the Score Comparison section of the Feedback Report where the .15 level of significance for subtest differences was utilized due to the supportive nature of these proposals. The analysis of specific test items on the WRAT4 can sometimes give insight into a hypothesis in need of review.

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End of Report