RIVIER UNIVERSITY

**DIVISION OF EDUCATION**

# **SPECIALIST IN THE ASSESSMENT OF INTELLECTUAL FUNCTIONING PROGRAM**

 AND

 **ASSOCIATION OF SPECIALISTS IN ASSESSMENT OF**

 **INTELLECTUAL FUNCTIONING (ASAIF)**

[**http://www.asaif.net**](http://www.asaif.net)

**Comments on Reports 8/23/12 # 242**

The **Association of Specialists in Assessment of Intellectual Functioning (ASAIF)** sponsors educational activities supporting the assessment of intellectual functioning, including this newsletter, co-sponsored by the Specialist in Assessment of Intellectual Functioning program at Rivier University,[[1]](#footnote-1) evening dinner-and-training events called "Shorties," and workshops. **ASAIF is now authorized by NASP to offer CPD credits.**  **If you have topics on which you would like ASAIF to do a workshop or Shorty, please tell me at** johnzerowillis@yahoo.com**. We have worked with school districts to co-sponsor workshops in the districts. We are happy to travel outside New Hampshire if someone wants to pay the speaker's travel expenses.**

If you wish to receive your own copies of this newsletter, email me at johnzerowillis@yahoo.com. Email versions include notices of ASAIF and other conferences and jobs in and near New Hampshire.

**CONTENT**

**Notes on norms based on age vs. norms based on current grade placement.**

On the WJ III, both age-based and grade-based scores are presented at (obviously smoothed) one-month intervals. [You are not going to convince me that children in grade 5.0 are really better at math computation than kids in grade 4.9!]

On most achievement tests, age-based normative scores are presented in spans of 3, 4, 6, or 12 months (sometimes with narrower ranges for younger kids). Grade-based norms are seasonal (Fall/Spring or Fall/Winter/Spring). Standard scores for the same raw score can change dramatically overnight, especially for young children, when you move from one season to the next. If the number of months per norms-table page is also large (6 or 12 months), you can have the same problem with age-based scores. This anomaly is called by Ron Dumont and me the Princess Summerfallwinter-spring effect [<http://en.wikipedia.org/wiki/Howdy_Doody>].

Here are examples of the Princess Summerfallwinterspring Effect from two of the best academic achievement tests that use seasonal norms.

**KTEA-II Fall and Spring Standard Scores for the Same Raw Score**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Grade: | 1 | 2 | 3 | 4 | 5 | 6 |
| Standard Score on Jan. 31 | 101 | 100 | 100 | 100 | 100 | 101 |
| Same raw score on Feb. 1 |  86 |  93 |  96 |  98 |  97 |  95 |
| Difference | -15 | -7 | -4 | -2 | -3 | -6 |

**WIAT-III Fall, Winter, and Spring Standard Scores for the Same Raw Score**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Grade: | 1 | 2 | 3 | 4 | 5 | 6 |
| Standard Score on Nov. 30 | 100 | 100 | 100 | 100 | 100 | 100 |
| Same raw score on Dec. 1 |  94 |  97 |  99 | 100 | 100 |  99 |
| Difference | -6 | -3 | -1 | 0 | 0 | -1 |
| Same raw score on Feb. 28 |  94 |  97 |  99 | 100 | 100 |  99 |
| Same raw score on Mar. 1 | 87-88 | 93-94 |  97 |  99 |  99 |  98 |
| Difference | -6.5 | -3.5 | -2 | -1 | -1 | -1 |
| Difference Nov. 30 – March 1  | -12.5 | -6.5 | -3 | -1 | -1 | -2 |

Summer grade-based norms are simply insane. Just as Ralphie has forgotten all of his math skills from last spring in 1st grade, he is being compared to kids in October of 2nd grade (mid-Fall norms) when he is dragged away from his PlayStation and tested early in the morning of August 1!

**Ralph's KTEA-II Composite Scores in Standard Scores by Various Norms**

**at Midnight on July 31, Just as Ralph Turns 8 years Old**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test | Age 7:11 | Age 8:0 | Differ-ence | Grade 1 Spring | Grade 2 Fall | Differ-ence |
| Reading Decoding Composite Score |  85 |  86 |  + 1\* |  94 |  88 | – 6 |
| Reading Composite Score  |  76 |  74 | – 2  |  82 |  75 | – 7 |
| Reading Sound-Symbol Composite Score  |  95 |  94 | – 1 | 102 |  97 | – 5 |
| Oral Fluency Composite Score  | 105 | 103 | – 2 | 111 | 106 | – 5 |
| Written Language Composite Score |  81 |  78 | – 3 |  87 |  79 | – 8 |
| Math Composite Score |  86 |  80 | – 6 |  96 |  87 | – 9 |
| **Comprehensive Achievement Composite** |  **83** |  **79** | **– 4** |  **92** |  **83** | – 9 |

 \* yes

Most cognitive, speech/language, perceptual, perceptual-motor, and memory tests and many Pro-Ed achievement tests offer only age-based norms. **WE CANNOT EVER COMPARE GRADE-BASED ACHIEVEMENT SCORES TO AGE-BASED ABILITY SCORES!!!** Johnny has been retained twice. He is of average stature for his age. Mixing age-based and grade-based percentile ranks, we obtain the following percentile ranks.

|  |  |  |
| --- | --- | --- |
|  | Percentile Rank by Norms for: | Percentile Rank by Norms for: |
| Age | Grade | Age | Grade |
| Height | 50 | 90 | 50 |  |
| Weight | 50 | 90 |  | 90 |
| Reading | 01 | 50 |  | 50 |
| IQ | 50 | 90 | 50 |  |

Using age norms for height and IQ and grade norms for weight and reading, we conclude that:

1. Johnny is reading just fine for his grade and ability.

2. Johnny is obese.

My practice is always to score all possible tests by both age and grade norms and then to use age-based scores for everything if there is little difference. Even when there is little difference, I often include two sets of tables in the appendix to my report. The WJ III has the obvious virtue of offering grade-based scores for the Cognitive as well as for the Achievement tests.

If there is a big difference between scores by age and grade norms, or if other past, present, or future evaluators are likely to use grade norms, I always include two sets of tables in the appendix. In the text of my report, I copy and paste selected excerpts from tables in the appendix. If there is a big difference, I will copy and paste both tables of age-based scores and tables of grade-based scores and will discuss both. The whole truth does not reside in either set of norms.

This discussion obviously addressed norms based on the student's age or current grade placement. Age-equivalent and grade-equivalent scores are the subject of an entirely separate rant, but the two issues are often confused. Many parents and some teachers will not immediately understand what we mean when we blithely refer to "grade-based scores" or "grade-based scores." It would be much better to write, at least the first time, something like "scores based on norms for students in Ecomodine's grade" or "scores compared to the scores of other students Ecomodine's age."

Many writers like to tell readers the examinee's **highest and lowest scores on a test**. Some-times, this information is too obvious to mention: "Morbid's highest score on the DAS-II was his 142 for Verbal Ability. His lowest score was his 49 for Nonverbal (fluid) Reasoning." Yeah, we had actually noticed that.

Other times, when differences between scores are not statistically significant, this "information" is misleading: "Quatheryne's highest score on the WISC-IV was 101 for Verbal Comprehension. Her lowest score was 99 for Processing Speed." Differences that are not statistically significant are not real differences at all. They are not differences. On another day, their positions might have been reversed. We should not state or imply that non-significant differences are differences.

When some differences are significant and some are not, the rank order of the scores is the least important information. We do not want to write that "Ciera's highest score on the DAS-II was 114 for Verbal Ability, and her lowest was 93 for Nonverbal (fluid) Reasoning" when her score for Spatial Ability was 94. The issue, obviously, is that Verbal Ability was significantly higher than both Nonverbal Reasoning and Spatial Ability.

I have just convinced myself simply to quit reporting which scores were highest and lowest.

**CELF-IV Scoring**: The Word Classes Total Score is derived from the sum of the Word Classes – Receptive and Word Classes – Expressive SCALED SCORES, ***NOT*** from the sum of the raw scores. The total score should be somewhere near the mean of the two component scores, usually slightly farther away from 10 than the mean of the two. I am sorry to say that I have a good reason for mentioning this issue.

**STYLE**

**Eschew obfuscating jargon!** *Ecomodine did not achieve a hinge stile on the Pacifica and she quickly reached a lock stile below the inception.* No, I have no idea what that means, either, but now we know how most parents and many teachers feel when reading that *Ecomodine did not achieve a basal on Atlantis and she quickly reached a ceiling below the starting point.*

Actually, the entire sentence can probably be omitted without harm. If Ecomodine's standard score was 62 (percentile rank 01), the reader already knows she did not do very well on the test. There's no need to drag basals and ceilings into the discussion. Similarly, raw scores do not help a reader who lacks access to the record form and the test manual. "Williamrobert crossed under the lintel after only 26 items" or "Billybob reached a ceiling after only 26 items" means nothing to most readers. If your point was that he did well or that he did poorly on the test, just say so and tell us the score.

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**BOOKS AND JOURNALS**

**Shameless self-promotion.**

McBride, G. M., Dumont, R., & Willis, J. O. (2011). *Essentials of IDEA for Assessment Professionals.* New York, NY: Wiley. ISBN 978-0-470-87392-2. Includes CD-ROM. <http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470873922.html>.

 I actually had little to do with the content of this book, most of which is derived from Guy McBride's posts on the NASP listserv [which you could access for free by searching the NASP listserv archives (<http://groups.yahoo.com/group/NASP-Listserv/messages>) for \*mcbride\*] with a lot of organization and additional information and commentary from Ron Dumont. As with Guy's NASP posts, we try to provide original source citations for all of our assertions and urge you to check for yourself. We are not attorneys. The CD includes a whole bunch of laws, regulations, court decisions, papers, and letters and guidance from OCR, OSEP, and OSERS, all of which you could look up for yourself for free. The book also explains the handy-dandy 46753 trick (pp. 20-21 in <http://media.wiley.com/product_data/excerpt/22/04708739/0470873922-133.pdf>). I don't know whether I should be pleased or embarrassed that I have been using the book frequently as legal questions have come up in my work. You'd think I should already know what's in it, but Guy and Ron did most of the writing.

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1. Neither ASAIF nor Rivier University is in any way, shape, or form responsible for the quirky opinions in this newsletter. They cannot be blamed for what is written here. [↑](#footnote-ref-1)