Previously Impossible Feats of Interpretation and Explanation with the WJ III

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Introducing... The Compositator

Sponsored by the Woodcock-Muñoz Foundation, the Compositator is a free, downloadable program used to generate empirically grounded, practically relevant, and statistically defensible explanations of individuals’ academic problems. Because the program is accompanied by detailed video tutorials that show the user how to use the large set of statistical tools included in the program, the Compositator is especially useful for instructors who teach psychometrics and psychological assessment.

Custom Composite Scores: Estimate Abilities with Greater Precision

The feature that gives the Compositator its name is its ability to create custom composite scores so that all assessment data can be used more efficiently and reliably. In this program, the composite scores are accompanied by practical statistical information, much of which was previously unavailable for any measure.

Estimate Gc (Crystallized Intelligence) with 5 WJ III NU Subtest Scores

Multiple Multiple Regressions: Path Analysis Applied to Individuals

A path model can be thought of as a set of interlocking regression equations. Although path analysis does not establish causality, once the causal relationships are specified, path analysis can be used to explore how one variable can affect another via direct and indirect paths. The results can be used to make specific predictions about individuals.

A Model of Reading-Related Abilities

If Ga were remediated, by how much are reading skills expected to improved?

Multiple Regression with Cognitive and Academic Predictors: With the addition of Letter-Word Identification to the model, the predicted reading comprehension is now consistent with the examinee’s obtained score.

If a cognitive explanation can be found for the examinee’s poor reading decoding skills, then a plausible explanation for poor reading comprehension has been found. Thus, the next step is create a multiple regression model with reading decoding as the criterion. The method by which both models may be considered simultaneously is path analysis.

Simple Regression: Passage Comprehension is predicted by a single predictor, the 5-subtest custom composite Gc~5. As shown by the residual significance and the first graph, it is clear that the examinee is reading significantly below expectations.

Multiple Regression: The addition of Phonemic Awareness to the model reduces the discrepancy somewhat, but is not sufficient to explain fully the examinee’s poor reading.

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