

## **NIH Toolbox Pattern Comparison Processing Speed Test version 1.1 November 2013**

The NIH Toolbox Pattern Comparison Processing Speed Test was changed so that the timing is not affected by network connection or server speed. The stopping rule has been modified so that the test concludes when the sum of the test-taker's item response times equals 86 seconds. Previously, the test concluded when 90 seconds (clock time, which is less than the sum of item response times) had elapsed. This change to the stopping rule has resulted in a slightly longer test, but ensures an equitable experience for all test takers. The revised test is labeled version number 1.1 (the originally published version was version 1.0).

Study teams who have already given version 1.0 to participants will now give version 1.1 for any follow-on assessments. All exports will show the actual test version administered, so if version 1.0 was given first followed by version 1.1, the data export will reflect that.

Here are some Frequently Asked Questions (FAQs) and responses:

### *How were my NIH Toolbox Pattern Comparison Processing Speed scores affected?*

The raw score was affected because some people who took the previous version of Pattern Comparison (1.0) received fewer items than they will on version 1.1. Thus, most participants saw a small increase in their raw scores. The normative scale scores (unadjusted, age-adjusted and fully adjusted) have been updated to reflect the change in the length of the test. All raw and normative scale scores for version 1.0 were revised to be equivalent to version 1.1. (Users wanting to retain the old raw and normative scale score data, even though they were no longer applicable, were instructed to export a copy of the Assessment Scores report prior to the upgrade).

### *How can I be sure I can compare old Pattern Comparison vs. new Pattern Comparison scores? Are there any special techniques needed for comparison?*

Our Biostatistics team developed an algorithm to convert Pattern Comparison version 1.0 raw scores to version 1.1 raw scores. This algorithm was programmatically applied to existing records on Assessment Center. The algorithm will be published in a revised NIH Toolbox Scoring and Interpretation Manual and will be posted on the NIH Toolbox website (NIHToolbox.org).

### *Why does data in Research Assistant view within Assessment Center indicate that the new version has been administered when actually the old one was?*

This is an artifact of the update process. Version 1.0 has been archived so it will no longer show on that screen. It does show as archived on the instrument list (at the bottom, in grey) and on the export.