

## **Research Considerations: Paper and Pencil Vs Online Article 3**

**Harcourt Assessment, Inc.**, (2004), Wang, Shudong, Young, Michael J. , and Brooks, Thomas E.,  
Harcourt Technical Report: SDRT 4/SDMT 4 Administration Mode Comparability Study/*Online or  
Paper: Does Delivery Affect Results?*.

This study examined empirically collected data to determine the comparability of scores resulting from computer-based and paper-and-pencil administrations of the SDRT 4 and SDMT 4 tests. The study focused on the effects of administration mode and mode order on test score variability and magnitude. The results of the study provide strong, broad-based evidence of the reliability and comparability of SDRT 4 and SCMT 4 scores for all grades and levels regardless of the administration mode.

Four major findings were discussed: 1) Raw scores from the different administration modes of SDRT 4/SDMT 4 has nearly equal or similar values for the first four moments: mean, standard deviation, skewness, and kurtosis. 2) All differences between the means of scores obtained from the computer-based and paper-and-pencil administration modes were less than one raw score point, with the exception of SDRT 4 grade 2. The expected higher levels of unfamiliarity with computers and small N-count were deemed the cause of the difference.3) Reliability coefficients for SCRT 4/SDMT 4 totals and subtests were moderately high and generally not variable regardless of the administration mode or mode order. 4) Regardless of mode order, grade, and test level examinees scoring high on the computer-based test also tended to score high on the paper-and-pencil test.

In summary, differences in scores based on administration mode do not appear to exceed expected random errors for most SDRT 4/SDMT 4 subtests across all grades and test levels.