

ED 4703 Assignment #1

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A. General Information:

- a. Test Title: Wechsler Individual Achievement Test--Third Edition (WIAT-III)
- b. Author: D. Wechsler
- c. Publisher: © 1992-2009, Pearson, 19500 Bulverde Road, San Antonio, TX, 78259, www.pearsonassessments.com
- d. Individual test administration time varies depending on the grade level of the student and the number of subtests administered. Time varies from 30 to 145 minutes.
- e. Costs cover the test kits, the Q global online scoring and reporting sheets, and additional administration materials:
 - WIAT®-III CDN: Complete Kit with Scoring Assistant in Soft Case (\$1,283.00)
 - WIAT®-III CDN: Complete Kit with Scoring Assistant in Box (\$1,204.00)
 - more pricing information is available on:
<http://www.pearsonassess.ca/en/programs/00/67/80/p006780.html>

B. Brief Description of Purpose and Nature of Test

- a. The WIAT test is an comprehensive individual assessment of multiple academic strengths and weaknesses.
- b. The population range for the WIAT test is for school-aged children. Pre-K through Grade 12 as well as for individuals ages 4:0 (four years, zero months) to 19:11 (nineteen years and eleven months) may take this test.
- c. The nature of the content measures listening, speaking, reading, writing, and mathematics skills. Generally, the test results can be used to identify the academic strengths and weakness of a student; inform decisions regarding eligibility for educational services, educational placement, or diagnosis of a specific learning disability; and design instructional objectives and plan interventions. The WIAT-III kit is comprised of an Examiner's Manual, Technical Manual CD, Stimulus Book, Record Form, Response Booklet, Oral Reading Fluency Booklet, Word Card, Pseudoword Card, Scoring Workbook, Audio CD, and Scoring Assistant software.
- d. The subtests include: Listening Comprehension, Oral Expression, Reading Comprehension, Word Reading, Pseudoword Decoding, Oral Reading Fluency, Sentence Composition, Essay Composition, Spelling, Math Problem Solving, Numerical Operations, Math Fluency-Addition, Math Fluency-Subtraction, Math Fluency-Multiplication
- e. Item types: The 16 subtests each have their own type of items. Some utilize the stimulus book for sight recognition, others require written responses from the student, some are scored as each question is completed, and some written responses are scored after the test administration is over. To administer the WIAT-III, the examiner shows the examinee items, reads

items to the examinee, or has the examinee listen to items. The examinee verbally responds, points to answers, or writes answers.

C. Practical Evaluation

- a. Qualitative features of test materials: The Examiner's manual is effectively laid out with an overview, guidelines, detailed administration and scoring information, and analysis and interpretation of the measure. A printed paper response booklet is used to record student responses, while a plastic-covered flip booklet (stimulus book) is used to show the student images. The stimulus book is double-sided in the third edition, eliminating the need for two books as in the previous edition.
- b. Ease of administration: The test administration is simple. An examiner can choose how many subtests to administer based upon student grade level and needs.
- c. Clarity of directions: Instructions are clear for each subtest. The entire test uses separate start and start points based upon grade level. The examiner can allow the student to return to problems (reverse rules) and allow discontinuing rules to shorten administration time and student fatigue. The manual includes instructions of what the examiner says for each question.
- d. "With respect to the statistical analyses of scores, both composite and subtest component score summaries compare individual performance. The differences among composite standard scores are also provided to show patterns of relative strengths and weaknesses. Finally, the addition of a chart that analyzes strengths and weaknesses summarizes the data in an easy-to-read fashion in the computer scoring system. This new scoring program, which is an upgrade to the existing platform, works in concert with the various intelligence tests by Wechsler and other PsychCorp=Pearson products. It offers a useful profile for comparative analyses. The software is very easy to download and works in minutes. The report that is generated is easy to read and provides a wealth of information to include raw scores, standard scores, percentiles, age and grade equivalence, confidence intervals, growth score, and stanines. The data are presented in both chart and graph formats" (Burns, 2010)
- e. Examiner qualification and training: To administer and score the WIAT test, a person must be involved in educational or psychological testing and have graduate-level training in the use of individually administered assessment instruments. (Thompson, 1993).

D. Technical Evaluation

- a. Norms
 - i. Type: Standard scores, age and grade equivalents, percentiles, normal curve equivalents, stanines, and growth scale values are all provided.
 - ii. "Standardization sample: The standardization sample consists of 2,775 students for children and adolescents within the age range of 4.00 to 19.11." (Vaughan-Jensen et al., 2011) "A proportionate

stratified sample was used based on a U.S. Census Bureau report from October 2005. Samples were stratified based on sex, race, age, grade, geographic region, and parent education level. At first glance, the sample sizes of 1,400 and 1,375 for the grade-based samples and the sample size of 1,826 for the age-based sample seem adequately large. However, when the sample size is divided by gender, then by the number of races represented, then by the number of geographic regions covered, then by parents' educational level, and then by the ages and grades of participants for age-based norms and grade-based norms, it leaves a small number on which to base norms." (Vaughan-Jensen et al., 2011) "In total, 822 typically developing students in Pre- Kindergarten to Grade 12 were included in the standardization sample." (McCrimmon and Climie, 2011)

b. Reliability

- i. "Split-half reliability. The split-half method was used to obtain reliability coefficients for most of the subtests. This method was not used for, sentence composition, essay composition, oral expression, and oral reading fluency because they do not have item-level data. The method was also not used for alphabet writing fluency and math fluency because the subtests are timed. Stability coefficients, or the corrected correlation between scores obtained on the first and second testing sessions, were used to estimate the reliability of these subtests. Average subtest reliabilities for math problem solving, word reading, pseudoword decoding, numerical operations, oral reading fluency, oral reading rate, and spelling are excellent (.90-.97). Average reliabilities for listening comprehension, early reading skills, reading comprehension, sentence composition, essay composition, essay composition-grammar and mechanics, oral expression, oral reading accuracy, and math fluency are good (.83-.89). Alphabet writing fluency has an average reliability of .69. Average reliability coefficients for the WIAT-III composite scores are excellent (.91-.98). These coefficients are better than those on the WIAT-II. Test-retest reliability. Test-retest reliability was obtained by administering the test twice. Average corrected reliability coefficients for reading comprehension, word reading, pseudoword decoding, oral reading fluency, oral reading rate, and spelling were very good (.90-.94). Early reading skills, math problem solving, essay composition, essay composition-grammar and mechanics, numerical operations, oral expression, oral reading accuracy, math fluency-addition, math fluency-subtraction, and math fluency-multiplication had good average corrected reliability coefficients (.82-.89). Average corrected reliability coefficients for listening comprehension and sentence

composition were adequate (.75 and .79, respectively). Average corrected stability coefficients for composites ranged from good to excellent (.87-.96)." (Vaughan-Jensen et al., 2011)

- ii. Scorer Reliability: "Interrater reliability. Most of the WIAT-III subtests require objective scoring, whereas a few of them require more subjective scoring. Objectively scored subtests were scored by a trained individual and then reviewed by another trained scorer. Interrater reliability was very high (98%-99%). Subjectively scored subtests were scored by two trained scorers. Interrater reliability was still high (91%-99%). Thus, although these subtests require more judgment when scoring, the criteria in the manual lead to consistent scoring." (Vaughan-Jensen et al., 2011)
- iii. Equivalence of forms: There is no equivalence of forms listed for the WIAT-III test.
- iv. Long-term stability: "test-retest stability coefficients were used. All subtest reliability coefficients fell between .83 and .97 (*very good to excellent*)" (McCrimmon and Climie, 2011)

c. Validity

- i. Evidence based on test content, Evidence based on response processes, Evidence based on internal structure, Evidence based on relationships with other variables
- ii. "Evidence based on test content. The revision was analyzed to make certain that the domains of academic achievement, reading, writing, math, and oral language were represented by the items. Items were drawn from a broad range of academic domains, a literature review was completed, and expert reviews were conducted. Evidence based on response processes. Unexpected response patterns were evaluated by consulting experts, referencing literature reviews, and using empirical evidence. Items that demonstrated consistently incorrect responses or misunderstanding were inspected and revised. Evidence based on internal structure. Subtests that make up a composite score correlate higher with one another than subtests that contribute to different composite scores (.46-.93). Using two or more subtests to make up each composite area improves the validity based on internal structure. Evidence based on relationships with other variables. The present version of the test was correlated with the WIAT-II. Changes in subtests were considered; correlations were lower for subtests that involved changes from one version to the other, whereas correlations were higher for subtests that remained very similar. Correlations are provided in the technical manual" (Vaughan-Jensen, Adame, McLean, and Gámez, 2011)
- iii. Size and nature: The WIAT-III is compared to four other tests, which are the WIAT-II, the WISC-IV, the WAIS-IV, and the WMS-IV tests.

E. Reviewer Comments

- a. "Offers examiners more options and flexibility when assessing students" with the inclusion of more subtests. "Pseudoword Decoding subtest has been enhanced through the addition of a suggested notation system for recording errors. This system is described in the Examiner's Manual and affords examiners the opportunity to evaluate the specific nature of errors during this subtest." "It is apparent that the WIAT-III is technically adequate and demonstrates strong reliability and validity. In addition, significant care and consideration was taken when creating Canadian-focused test questions and developers removed or modified any question thought to be specific to the United States." (McCrimmon and Climie, 2011).
- b. "A noted strength to the WIAT-III is that it provides domain-specific coverage in every required academic area specified by federal law for identifying a learning disability (Individuals with Disabilities Education Improvement Act of 2004 [IDEA 2004]). Therefore, the WIAT-III seeks to strengthen the link with the IDEA 2004 and supports clear diagnostic criteria when considering a learning disability." (Burns, 2010).
- c. "The technical and administrative weaknesses of the WIAT appear to be few and are considered similar to those associated with other recognized measures of achievement (Riccio, 1992). However, research investigating the psychometric properties of the WIAT is currently limited to the American sample studies reported in the test manual, and the published normative data have not been investigated with groups of children living outside the United States." (Michalko and Saklofske, 1996).
- d. "The WIAT was also designed to measure the areas of educational disability in accord with PL 94-142, to keep pace with current education trends, to sample written and oral language reliably and to provide a measure of listening comprehension. Data are reported as standard scores, percentiles, grade equivalents, and normal curve equivalents." (Flanagan, 1997).
- e. Administration and scoring of the WIAT are relatively easy and simple (Thompson, 1993).
- f. "The WIAT-III seems to fit the theoretical model described by test makers. The test complements IEP goals and objectives, can be used within an RTI model, is linked to other Wechsler instruments, and connects with NCLB and IDEA legislation. ... the WIAT-III has many strengths. The technical manual is in CD form; instructions in the protocol book are clear; items attempt to be free from ethnic bias; test materials are visually appealing; each composite contains at least two subtests; the test facilitates identification of deficits; and the instrument is appropriate for the intended population. The WIAT-III also has some weaknesses. The instrument is not available in any language other than English; the test is highly verbal, so it is not appropriate for all individuals; the hand scoring is time consuming and could be confusing; some of the scoring criteria for the writing sections do not provide adequate explanations; administration time is lengthy; and although the sample size

seems quite large, norms were based on a small number of individuals.”
(Vaughan-Jensen et al., 2011)

F. Full Reference List

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