# One

# **OVERVIEW**

ver the past few years, there have been many changes affecting those who administer standardized achievement tests. New individually administered tests of achievement have been developed, and older instruments have been revised or renormed. The academic assessment of individuals from preschool to post-high school has increased over the past years due to requirements set forth by states for determining eligibility for services for learning disabilities. Individual achievement tests were once primarily norm-based comparisons with peers but now serve the purpose of analyzing academic strengths and weaknesses via comparisons with conormed (or linked) individual tests of ability. In addition, the focus of academic assessment has been broadened to include not only reading decoding, spelling, and arithmetic but also reading comprehension, arithmetic reasoning, arithmetic computation, listening comprehension, oral expression, and written expression (Smith, 2001).

These changes in the field of individual academic assessment have led professionals to search for resources that would help them remain current on the most recent instruments. Resources covering topics such as how to administer, score, and interpret frequently used tests of achievement and on how to apply these tests' data in clinical situations need to be frequently updated. Thus, in 2001, Douglas K. Smith published a book in the Essentials series titled Essentials of Individual Achievement Assessment, which devoted chapters to four widely used individually administered tests of achievement. Smith's book was the inspiration for writing this book, which focuses on the recent second editions of two of the instruments written about in Essentials of Individual Achievement Assessment: the Wechsler Individual Achievement Test (WIAT) and the Kaufman Test of Educational Achievement

<sup>1.</sup> Another widely used achievement test, the Woodcock Johnson, Third Edition (WJ III) is the topic of its own book in the Essentials series entitled Essentials of WI III Tests of Achievement Assessment (Mather, Wendling, & Woodcock, 2001).

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(KTEA). Because both of these instruments are widely used achievement tests in school psychology and related fields, the third edition of the WIAT and the second edition of the KTEA are deserving of a complete up-to-date book devoted to their administration, scoring, interpretation, and clinical applications. Essentials of WIAT-III and KTEA-II Assessment provides that up-to-date information and includes rich information beyond what is available in the tests' manuals. An entire chapter is devoted to illustrative case reports to exemplify how the results of the WIAT-III and KTEA-II can be integrated with an entire battery of tests to yield a thorough understanding of a student's academic functioning. In a chapter devoted to clinical applications of the tests, the following topics are discussed: the integration of the KTEA-II and WIAT-III with their respective conormed tests of cognitive ability, focusing on the conceptual and theoretical links between tests, and the assessment of special populations, including specific learning disabilities and attention-deficit/hyperactivity disorder.

#### **PURPOSES AND USES OF ACHIEVEMENT TESTS**

The WIAT-III and KTEA-II are used for many reasons including diagnosing achievement, identifying processes, analyzing errors, planning programs, measuring academic progress, evaluating interventions or programs, making placement decisions, and conducting research. Some pertinent applications of these tests are described next.

## **Diagnosing Achievement**

The WIAT-III and KTEA-II provide an analysis of a student's academic strengths and weaknesses in reading, mathematics, written expression, and oral language. In addition, these tests allow for the investigation of related factors that may affect reading achievement, such as Phonological Awareness and Naming Facility (RAN) on the KTEA-II and Early Reading Skills, Oral Word Fluency, Expressive Vocabulary, Receptive Vocabulary, and Oral Discourse Comprehension on the WIAT-III.

#### **Identifying Processes**

Pairwise comparisons of subtests on both the WIAT-III and KTEA-II allow examiners to better understand how students take in information (Reading Comprehension versus Listening Comprehension) and express their ideas (Written Expression versus Oral Expression).

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# **Analyzing Errors**

The KTEA-II provides a detailed quantitative summary of the types or patterns of errors a student makes on subtests in each of the achievement domains (Reading, Math, Written Language, and Oral Langauge), as well as for Phonological Awareness and Nonsense Word Decoding. Tracking error patterns can help examiners plan appropriate remedial instruction specifically targeting the difficulties a student displays, and the KTEA-II ASSIST software offers instructional strategies to help examiners design appropriate interventions based on a student's error pattern.

The WIAT-III provides skills analysis capabilities that also yield a detailed quantitative summary of the types of errors a student makes. This information helps examiners evaluate a student's error patterns and skill strengths and weaknesses. Each subtest includes sets of items that measure a specific skill or set of skills. The information yielded from analyzing the student's errors through the skills analysis can then be used in the design of an instructional plan or specific intervention for a student.

#### Planning Programs

The norm-referenced scores, along with the error analysis information, indicate a student's approximate instructional level. These results can help facilitate decisions regarding appropriate educational placement as well as appropriate accommodations or curricular adjustments. The information can also assist in the development of an individualized education program (IEP) based on a student's needs. For young adults, the results can help inform decisions regarding appropriate vocational training or general equivalency diploma (GED) preparation.

#### **Measuring Academic Progress**

The two parallel forms of the KTEA-II allow an examiner to measure a student's academic progress while ensuring that changes in performance are not due to the student's familiarity with the battery content. Academic progress can also be measured on the WIAT-III with a retest, taking into consideration any potential practice effect.

#### **Evaluating Interventions or Programs**

The WIAT-III and KTEA-II can provide information about the effectiveness of specific academic interventions or programs. For example, one or more of the composite scores could demonstrate the effectiveness of a new reading program E1C01 01/22/2010 20:10:59 Page

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within a classroom or examine the relative performance levels between classrooms using different math programs.

#### **Making Placement Decisions**

The WIAT-III and KTEA-II can provide normative data to aid in placement decisions regarding new student admissions or transfers from other educational settings.

## **Conducting Research**

The WIAT-III and the KTEA-II Comprehensive Form are reliable, valid measures of academic achievement that are suitable for use in many research designs. Indeed, a brief search of the literature via the PsycINFO database yielded hundreds of articles that utilized the WIAT and the KTEA. The two parallel forms of the KTEA-II make it an ideal instrument for longitudinal studies or research on intervention effectiveness using pre- and post-test designs.

The KTEA-II Brief Form is also a reliable, valid measure of academic achievement that is ideal for research designs that call for a screening measure of achievement. The brevity of the KTEA-II Brief Form makes it useful in estimating the educational achievement of large numbers of prisoners, patients in a hospital, military recruits, applicants to industry training programs, or juvenile delinquents awaiting court hearings, where administering long tests may be impractical.

#### **Screening**

The KTEA-II Brief Form is intended for screening examinees on their global skills in mathematics, reading, and written language. The results of the screening may be used to determine the need for follow-up testing.

#### **SELECTING AN ACHIEVEMENT TEST**

Selecting the appropriate achievement test to use in a specific situation depends on a number of factors.<sup>2</sup> The test should be reliable, valid, and used only for the purposes for which it was developed. The *Code of Fair Testing Practices in Education* 

Portions of this section were adapted from Chapter 1 of Essentials of Individual Achievement Assessment (Smith, 2001).

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(Joint Committee on Testing Practices, 2004) outlines the responsibilities of both test developers and test users. Key components of the Code are outlined in Rapid Reference 1.1.

# **■ Rapid Reference 1.1**

# Excerpts from the Code of Fair Testing Practices in Education

# A. Selecting Appropriate Tests

Test users should select tests that meet the intended purpose and that are appropriate for the intended test takers.

- 1. Define the purpose for testing, the content and skills to be tested, and the intended test takers. Select and use the most appropriate test based on a thorough review of available information.
- 2. Review and select tests based on the appropriateness of test content, skills tested, and content coverage for the intended purpose of testing.
- 3. Review materials provided by test developers and select tests for which clear, accurate, and complete information is provided.
- 4. Select tests through a process that includes persons with appropriate knowledge, skills, and training.
- 5. Evaluate evidence of the technical quality of the test provided by the test developer and any independent reviewers.
- 6. Evaluate representative samples of test questions or practice tests, directions, answer sheets, manuals, and score reports before selecting a test.
- 7. Evaluate procedures and materials used by test developers, as well as the resulting test, to ensure that potentially offensive content or language is avoided.
- 8. Select tests with appropriately modified forms or administration procedures for test takers with disabilities who need special accommodations.
- 9. Evaluate the available evidence on the performance of test takers of diverse subgroups. Determine to the extent feasible which performance differences may have been caused by factors unrelated to the skills being assessed.

# **B.** Administering and Scoring Tests

Test users should administer and score tests correctly and fairly.

- 1. Follow established procedures for administering tests in a standardized
- 2. Provide and document appropriate procedures for test takers with disabilities who need special accommodations or those with diverse linguistic backgrounds. Some accommodations may be required by law or regulation.

(continued)

- 3. Provide test takers with an opportunity to become familiar with test question formats and any materials or equipment that may be used during
- 4. Protect the security of test materials, including respecting copyrights and eliminating opportunities for test takers to obtain scores by fraudulent
- 5. If test scoring is the responsibility of the test user, provide adequate training to scorers and ensure and monitor the accuracy of the scoring process.
- 6. Correct errors that affect the interpretation of the scores and communicate the corrected results promptly.
- 7. Develop and implement procedures for ensuring the confidentiality of scores.

# C. Reporting and Interpreting Test Results

Test users should report and interpret test results accurately and clearly.

- 1. Interpret the meaning of the test results, taking into account the nature of the content, norms or comparison groups, other technical evidence, and benefits and limitations of test results.
- 2. Interpret test results from modified test or test administration procedures in view of the impact those modifications may have had on test results.
- 3. Avoid using tests for purposes other than those recommended by the test developer unless there is evidence to support the intended use or interpretation.
- 4. Review the procedures for setting performance standards or passing scores. Avoid using stigmatizing labels.
- 5. Avoid using a single test score as the sole determinant of decisions about test takers. Interpret test scores in conjunction with other information about individuals.
- 6. State the intended interpretation and use of test results for groups of test takers. Avoid grouping test results for purposes not specifically recommended by the test developer unless evidence is obtained to support the intended use. Report procedures that were followed in determining who were and who were not included in the groups being compared and describe factors that might influence the interpretation of results.
- 7. Communicate test results in a timely fashion and in a manner that is understood by the test taker.
- 8. Develop and implement procedures for monitoring test use, including consistency with the intended purposes of the test.

#### D. Informing Test Takers

Test users should inform test takers about the nature of the test, test taker rights and responsibilities, the appropriate use of scores, and procedures for resolving challenges to scores.

- 1. Inform test takers in advance of the test administration about the coverage of the test, the types of question formats, the directions, and appropriate test-taking strategies. Make such information available to all test takers.
- 2. When a test is optional, provide test takers or their parents/guardians with information to help them judge whether a test should be taken—including indications of any consequences that may result from not taking the test (e.g., not being eligible to compete for a particular scholarship)—and whether there is an available alternative to the test.
- 3. Provide test takers or their parents/guardians with information about rights test takers may have to obtain copies of tests and completed answer sheets, to retake tests, to have tests rescored, or to have scores declared invalid.
- 4. Provide test takers or their parents/guardians with information about responsibilities test takers have, such as being aware of the intended purpose and uses of the test, performing at capacity, following directions, and not disclosing test items or interfering with other test takers.
- 5. Inform test takers or their parents/guardians how long scores will be kept on file and indicate to whom, under what circumstances, and in what manner test scores and related information will or will not be released. Protect test scores from unauthorized release and access.
- 6. Describe procedures for investigating and resolving circumstances that might result in canceling or withholding scores, such as failure to adhere to specified testing procedures.
- 7. Describe procedures that test takers, parents/guardians, and other interested parties may use to obtain more information about the test, register complaints, and have problems resolved.

Note: The Code was developed in 1988 and was revised in 2004 by the Joint Committee of Testing Practices, a cooperative effort of several professional organizations that has as its aim the advancement, in the public interest, of the quality of testing practices. The Joint Committee was initiated by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME). In addition to these three groups, the American Association for Counseling and Development/Association for Measurement and Evaluation in Counseling and Development and the American Speech-Language-Hearing Association also now sponsor the loint Committee.

The first factor to consider in selecting an achievement test is the purpose of the testing. Discern whether a comprehensive measure (covering the areas of achievement specified in the Individuals with Disabilities Improvement Act of 2004 [Public Law (PL) 108–446]) is needed or whether a less specific screening measure is appropriate. Another issue is whether an analysis for the identification of a specific learning disability (e.g., ability-achievement discrepancy) will need to be examined. Although PL 108-446 recently removed the requirement of demonstrating an achievement-ability discrepancy from determining eligibility for learning disabilities services, states still have the option to include this discrepancy if they choose. For this purpose, using achievement tests with conormed or linked

ability tests is best. To gather diagnostic information and information about the level of skill development, you should use a test with skills analysis procedures.

The second factor to consider in selecting an achievement test is whether a particular test can answer the specific questions asked in the referral concerns. The specificity of the referral questions will help guide the test selection. For example, if the referral concern is about a child's reading fluency, the test you select should have a subtest or subtests that directly assess that domain.

The third factor to consider in selecting an achievement test is how familiar an examiner is with a certain test. Familiarity with a test and experience with scoring and interpreting it is necessary to ethically utilize it in an assessment. If you plan to use a new test in an assessment, you should ensure that you have enough time to get proper training and experience with the instrument before using it.

The fourth factor to consider in selecting an achievement test is whether the test's standardization is appropriate. Consider how recent the test's norms are. Most recent major tests of academic achievement are well standardized, but you should still review the manual to evaluate the normative group. See if students with disabilities were included in the standardization sample (which is important when assessing a student suspected of having a learning disability). Also see if appropriate stratification variables were used in the standardization sample.

The fifth factor to consider in selecting an achievement test is the strength of its psychometric properties. Consider whether the test's data have adequately demonstrated its reliability and validity. A test's internal consistency, test-retest reliability, and correlations with other achievement tests and tests of cognitive ability should all be examined. Additionally, consider the floor and ceiling of a test across age levels. Some tests have poor floors at the youngest age levels for the children with the lowest skills, and other tests have poor ceilings at the oldest age levels for the children with the highest skill levels. You can judge the adequacy of the floors and ceilings by examining the standard score range of the subtests and composites for the age range of the student you are assessing.

In Chapter 4 of this book, Ron Dumont and John Willis review what they feel are the strengths and weaknesses of the WIAT-III and KTEA-II, respectively. We encourage examiners to carefully review the test they select to administer, whether it is the WIAT-III, KTEA-II, or another achievement test, to ensure that it can adequately assess the unique concerns of the student for whom the evaluation is being conducted. Rapid Reference 1.2 summarizes the key points to consider in test selection.

# *■ Rapid Reference 1.2*

# Key Points to Consider in Test Selection

Consider the Purpose of the Assessment and What Type of Test(s) It Demands

- Comprehensive assessment
- Screening assessment
- · Ability-achievement discrepancy analysis
- Skills analysis

Consider Your Experience with the Assessment Instrument You Are Planning to Administer

- Administration (extensive, some, or no experience?)
- Scoring (extensive, some, or no experience?)
- Interpretation (extensive, some, or no experience?)

Consider the Adequacy of the Test's Standardization

- Are norms recent?
- Was the standardization sample appropriate?
- Were students with learning disabilities included?
- Was the norm sample appropriately stratified according to age, gender, geographic region, ethnicity, and socioeconomic status?

Consider the Psychometric Qualities of the Test

- Is the test's reliability adequate (internal consistency and test-retest reliability)?
- Is the test's validity adequate (correlations with other achievement tests, correlations with ability tests)?
- Does the test have an adequate floor for the age of the student you are assessing?
- Does the test have an adequate ceiling for the age of the student you are assessing?

## ADMINISTERING STANDARDIZED ACHIEVEMENT TESTS

The WIAT-III and KTEA-II are standardized tests, meaning that they measure a student's performance on tasks that are administered and scored under known conditions that remain constant from time to time and person to person. Standardized testing allows examiners to directly compare the performance of one student to the performance of many other students of the same age who were tested in the same way. Strict adherence to the rules allows examiners to

know that the scores obtained from the child they tested are comparable to those obtained from the normative group. Violating the rules of standardized administration renders norms of limited value. Being completely familiar with the test, its materials, and the administration procedures allows examiners to conduct a valid assessment in a manner that feels natural, comfortable, and personal—not mechanical. The specific administration procedures for the WIAT-III are discussed in Chapter 2, and those for the KTEA-II are discussed in Chapter 3.

#### **Testing Environment**

Achievement testing, like most standardized testing, should take place in a quiet room that is free of distractions. The table and chairs that are used during the assessment should be of appropriate size for the student being assessed. That is, if you are assessing a preschooler, then the table and chairs used should ideally be similar to those that you would find in a preschool classroom. However, if you are assessing an adolescent, adult-size table and chairs are appropriate. For the WIAT-III, the seating arrangement should allow both the examiner and the student to view the front side of the easel. For the KTEA-II, the seating arrangement should allow the examiner to see both sides of the easel. The examiner must also be able to write responses and scores discretely on the record form (out of plain view of the examinee). Many examiners find the best seating arrangement is to be at a right angle from the examinee, but others prefer to sit directly across from the examinee. The test's stimulus easel can be used to shield the record form from the student's view, but if you prefer, you may also use a clipboard to keep the record form out of view. Most importantly, you should sit wherever is most comfortable for you and allows you easy access to all of the components of the assessment instrument.

## **Establishing Rapport**

In order to ensure that the most valid results are yielded from a testing, you need to create the best possible environment for the examinee. Perhaps more important than the previously discussed physical aspects of the testing environment is the relationship between the examiner and the student. In many cases, the examiner will be a virtual stranger to the student being assessed. Thus, the process of establishing rapport is a key component in setting the stage for an optimal assessment.

Rapport can be defined as a relationship of mutual trust or emotional affinity. Such a relationship typically takes time to develop. To foster the development of positive rapport, you need to plan on a few minutes of relaxed time with the student before diving into the assessment procedures. Some individuals are slow to warm up to new acquaintances, whereas others are friendly and comfortable with new people from the get-go. Assume that most students you meet will need time before being able to comfortably relate to you.

You can help a student feel more comfortable through your style of speech and your topics of conversation. Adapt your language (vocabulary and style) to the student's age and ability level (i.e., don't talk to a 4-year-old like you would a teenager, and vice versa). Use a friendly tone of voice, and show genuine personal interest and responsiveness. For shy children, rather than opening up immediately with conversation, try an ice-breaking activity such as drawing a picture or playing with an age-appropriate toy. This quiet interaction with concrete materials may provide an opening to elicit conversation about them.

In most instances, it is best not to have a parent, teacher, or other person present during the assessment, as it can affect the test results in unknown ways. However, when a child is having extreme difficulty separating, it can be useful to permit another adult's presence in the initial rapport-building phase of the assessment to help the child ease into the testing situation. Once the child's anxiety has decreased or once the child has become interested in playing or drawing with you, encourage the student to begin the assessment without the adult present.

Maintaining rapport requires diligent effort throughout an assessment. Watch students for signs of fatigue, disinterest, and frustration. These signs are clues that you need to increase your feedback, give a break, or suggest a reward for completing tasks. Using good eye contact will help you show interest and enthusiasm for the student's efforts. Use your clinical judgment about how much praise a child needs for their efforts. Some children will need more pats on the back than others. Always praise students for their efforts, not the correctness of their responses.

# SUMMARY INFORMATION ABOUT THE TESTS AND THEIR PUBLISHERS

The WIAT-III is published by Pearson under the brand PsychCorp. The KTEA-II Comprehensive Form and KTEA-II Brief Form are published by Pearson Assessments. In Rapid References 1.3 and 1.4, we provide a summary of important

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# *■ Rapid Reference 1.3*

# Basic Information about the Wechsler Individual Achievement Test, Third Edition

Author	WIAT-III: Pearson
Publication Date	2009
What the Test Measures	WIAT-III measures the following achievement domains: Basic Reading, Reading Comprehension, Reading Fluency, Mathematics Calculation, Mathematics Problem Solving, Written Expression, Listening Comprehension, and Oral Expression.
Age Range	4–50 years (Adult norms for ages 20–50 available in 2010.)
Administration Time	Estimates based upon the time it took for 50 percent of the standardization sample to administer all grade-appropriate subtests.  Pre-K-Kindergarten: 35–45 minutes Grades 1–3: 80–94 minutes Grades 4–12+: 104 minutes
Qualification of Examiners	Certification by or full active membership in a professional organization that requires training and experience in a relevant area of assessment. or  A master's degree in psychology, education, occupational therapy, speech-language pathology, social work, or a field closely related to the intended use of the assessment and formal training in the ethical administration, scoring, and interpretation of clinical assessments.
Publisher	Pearson P.O. Box 599700 San Antonio, TX 78259 800.2   I.8378 http://www.PsychCorp.com
Price	WIAT-III Kit: \$625 Includes scoring assistant, audio CD, stimulus book, record form (package of 25), response booklet (package of 25), oral reading fluency booklet, word card, pseudoword card, scoring workbook, examiner's manual, and technical manual CD.

# Basic Information about the Kaufman Test of Educational Achievement, Second Edition

Author	Alan S. Kaufman and Nadeen L. Kaufman
Publication Date	KTEA-II Comprehensive Form: 2004 KTEA-II Brief Form: 2005
What the Test Measures	The following achievement domains are measured in both the Comprehensive and Brief Forms: Reading, Mathematics, and Written Language. The Comprehensive Form measures an additional fourth domain: Oral Language.
Age Range	4 ½ –25 years (Comprehensive Form) 4 ½ –90+ years (Brief Form)
Administration Time	Comprehensive Form: Pre-K-Kindergarten: 25 minutes Grades I-2: 50 minutes Grades 3+: 70 minutes Brief Form: 4 ½ -90+ years: 20-30 minutes
Qualification of Examiners	User must have completed graduate training in measurement, guidance, individual psychological assessment, or special appraisal methods appropriate for an individual achievement test.
Publisher	Pearson Attn: Ordering Department P.O. Box 1416 Minneapolis, MN 55440 800.627.7271 http://www.pearsonassessments.com
Price (retrieved from web site in July 2009)	KTEA-II Comprehensive Form A or B Kit: \$351.50 Includes two easels, manual, norms book, Form A record forms (25), Form A student response booklets (25), Form A error analysis booklets (25), two each of three Form A WE booklets, all necessary stimulus materials, Form A administration CD, puppet, and tote bag.
	KTEA-II Comprehensive Computer ASSIST: \$267 Macintosh and Windows CD-ROM.
	KTEA-II Brief Form Kit: \$180 Includes one easel, one manual, 25 record forms, and 25 response booklets.

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information about the WIAT-III, KTEA-II Comprehensive Form, and KTEA-II Brief Form. These Rapid References provide information on the following topics: test author, publisher, publication date, what the test measures, age range covered by the test, administration time, qualification of examiners, and test price.