Mini-Battery of Achievement

The Mini-Battery of Achievement (Woodcock, McGrew, & Werder, 1994) is an individually administered, brief, and comprehensive measure of academic achievement designed to assess a broad cross section of skills across a wide age range. The authors indicate that the MBA is designed for educational, clinical, vocational placement, and research purposes. The test is applicable for individuals from 4 to 90-plus years of age, and it takes about 30 minutes to administer. No special training is required for those who administer the test. The MBA includes measures of academic competence in reading, math, writing, and factual knowledge (in science, social studies, and humanities). Test items are printed in an easel format, and the examiner uses the easel and a test record with worksheet in administering the test. There is a computer scoring program that accompanies the test, and use of it yields a one-page interpretive report. The MBA is essentially a short form of the Woodcock–Johnson Psychoeducational Battery (see the chapter "Assessment of Intelligence: Individual Tests"). Willis, Dumont, and Cruse (in press) conducted an analysis of test-item overlap. They report that 82 percent of the items on the MBA are from the two forms of the Woodcock–Johnson–Revised (WJ-R). The remaining items came from the original item pool for the WJ-R.

Subtests

The following behaviors are sampled by the subtests of the MBA.

Reading The reading subtest is a three-part measure. Letter- and word-identification skills are assessed in Part A, in which the test taker must read isolated letters and words. In Part B (Vocabulary), the test taker must identify an antonym of a word read by the

examiner. Part C (Comprehension) of the test is a cloze measure of reading in which the test taker must identify missing words in short passages.

Writing The writing subtest is a two-part measure. In Part A (Dictation), the test taker must write words or sentences—and by doing so demonstrate knowledge of letter forms, spelling, punctuation, capitalization, and word knowledge. In Part B (Proofreading), the test taker is required to correct mistakes in capitalization, punctuation, spelling, or word usage.

Math Math is also a two-part subtest. Part A (Calculation) is an assessment of skill in performing basic math operations plus geometry, algebra, trigonometry, and calculus on problems that involve whole numbers, fractions, and decimals. The test taker completes responses on a worksheet, so this is not a problem-solving assessment in which the person must decide what to add, subtract, and so on. Rather, the items are given to the test taker. In Part B (Reasoning and Concepts), the test taker must analyze and solve practical problems. This requires deciding what data to use and how to solve the problems.

Factual Knowledge This subtest is like the general information subtest on other measures and includes an assessment of knowledge of facts and concepts drawn from social studies, science, and humanities.

Scores

Scores on Reading, Math, and Writing are combined into a basic skills cluster. Raw scores on the MBA may be converted to grade scores, age equivalents, standard scores, percentile scores, normal-curve equivalents, and *T*-scores. There are no norm tables in the manual. Rather, the computerized scoring program is used to obtain all scores.

Norms

The MBA and the WJ-R are standardized on a common norming sample. The MBA was never administered. Rather, performance by the WJ-R norm sample on items used to construct the MBA makes up the norming sample for the MBA. The MBA was standardized on 6,026 subjects aged 4 to 95 years. The sample was stratified on the basis of census region, community size, gender, race, national origin, distribution of education of adults in the community, adult occupational status (employed, not employed, not in workforce), and distribution of occupations; in addition, college students were stratified as to whether the college was public or private and its type. The manual for the MBA does not include information illustrating the extent to which the norm sample is representative of the general population. Test givers must refer to the technical manual of the WJ-R (McGrew, Werder, & Woodcock, 1991) for this information.

Reliability

The authors report data on internal-consistency and test–retest reliability for the MBA. They report internal-consistency reliability by age with large numbers of subjects (125 to 715 at each age level). With the exception of mathematics at age 5 years (reliability = .70), all reliability coefficients exceed .90, although reliabilities for Factual Knowledge are lower than those for other subtests. The MBA has good internal-consistency reliabilities.

A study of test–retest reliability was completed on subjects at three age levels (sixth grade, college, and adult). The sample is not described, so we have no idea whether it is representative of the population. The test–retest interval is not described. There were

52–56 people in the sample at each age level. Reliabilities exceeded .85, but the limited size of the sample weakens the argument for test–retest reliability.

Validity

The authors report content-, concurrent-, and construct-validity studies. In arguing for content validity, the authors say that the items were selected "carefully" and cover many levels of difficulty. They do not provide a rationale for selection of the items and do not indicate the curricular match for items. The manual includes the report of a concurrent-validity study using the same sample as that used in establishing test–retest reliability. Again, the sample is not described. Correlations of performance between the basic skills cluster and each MBA subtest, each composite score, and each total score are reported. Performance on the basic skills cluster consistently correlated in excess of .80 with performance on other composite or total scores. Evidence for construct validity also comes from this study. The authors show that performance on similar-content subtests (such as reading with reading) correlates more highly than that on different-content subtests (such as reading with math).

Summary

The MBA is a brief measure of academic achievement that is more comprehensive than similar brief measures. It includes an assessment of performance in Reading, Mathematics, Writing, and Factual Knowledge. The test is a short form of the Achievement portion of the Woodcock–Johnson Psychoeducational Battery–Revised. The MBA was adequately standardized and has good internal-consistency reliability. Evidence for test–retest reliability and for concurrent and construct validity is based on very limited samples. The test is a good screening measure of academic achievement.