Types of Formal Assessments for Mathematics

Examples of Group Standardized Survey Tests

- California Achievement Tests, 6th Ed. (CAT/6) – Includes comprehensive mathematics for K-12
- Aprenda 3 Achievement Test (in Spanish) – Harcourt, Brace Achievement Test for K-12 – Includes comprehension mathematics section based on NCTM standards using elements of Stanford Achievement Tests.
- Iowa Test of Basic Skills (Hoover, Dunbar & Frisbie, 2007) – Math section covers all of the big ideas for K-8

Examples of Individual Achievement Tests:

- Kaufman Test of Educational Achievement—II (Kaufman & Kaufman, 2004). Computation, numerical reasoning, concepts, and applications are assessed.

Examples of Diagnostic Math Tests:

- Comprehensive Mathematical Abilities Test (Hresko, Schieve, Herron, Swain, & Sherbenou, 2002) for grades 2-12. Assesses calculations, mathematical reasoning, and practical applications. Computerized scoring and reporting available.
- Key Math-3 for grades K-12. No reading is involved. All big idea topic areas are assessed. Has software for scoring, reporting, and gives strategies.
- Test of Early Mathematics Ability-3 (TEMA-3) (Ginsburg & Baroody, 2003) for preschool through grade 3. Assesses counting skills, number facts, communication/literacy, calculation, math concepts.
- Test of Mathematical Abilities—2 (TOMA-2) (Brown, Cronin, & McEntire, 1994) for grades 3-12. Assesses math vocabulary, computation, real life problem-solving, and mathematical sense. It can also help measure math attitudes.

Examples of Technology-Based Diagnostic Assessments:

- Accelerated Math: Aligns with most state standards and includes all ‘big ideas’ presented in the goal section; provides detailed report with instructional suggestions.
- Star Math: Gives performance overview in 15 minutes, computerized; analyzes student data; has reliability and validity information.
- Study Island - Web-based, research-based; correlates with state standards; gives individual diagnostic assessment and interactive instruction with corrective feedback.

Example of Criterion Referenced Assessment:

- Brigance Diagnostic Comprehensive Inventory of Basic Skills – Revised (Brigance, 1999) – easy to use, no specialized training; has electronic links to state standards; includes test prep/study skills; on-line data manager.