Testing for Tomorrow

Growth Model Testing
Measuring student progress over time
Standardized tests are a useful part of a comprehensive student and school assessment system, but they do not assess or promote a variety of important aspects of teaching and learning.

“When all your time is directed to test preparation, the students lose out on problem-solving skills, creativity, multiple methods for learning, outside resources and the desire to be a life-long learner.”

— Minnesota 2020 Principal Survey, as quoted by the ECM Editorial Board.
Key Message: Tests that have the capacity to measure individual student progress provide the most useful information for improvement. Testing is just one of several meaningful components of measuring school and student success.
Types of Standardized Tests

- Criterion-referenced tests
- Norm-referenced tests
Criterion-referenced tests (CRT)

**Description:**
- Closely aligned to what is taught.
- Cover limited areas of content in depth
- Specific level that is considered “passing” or “proficient”
- Measure students who score near the passing score most accurately.
- Generally poor at measuring individual student growth

**Examples:** The Minnesota Comprehensive Assessments (MCA-II), Minnesota Basic Standards Tests (BST), Graduation Required Assessments for Diploma (GRAD)
Norm-referenced tests (NRT)

**Description:**
- Compare student performance to a norm (or average) group across content areas
- Measure students mastery of commonly taught content
- Use percentile rank as their main measurement indicator
- Not aligned to district curriculum
- Don’t describe how much an individual student has learned
- Not designed to judge instructional quality

**Examples:** The Minnesota Comprehensive Assessments (MCA-II), Minnesota Basic Standards Tests (BST), Iowa Test of Basic Skills (ITBS), California Achievement Tests (CAT), Stanford Achievement Tests, NWEA MAP tests
Approaches to Standardized Testing

- Growth Model Tests
- Adaptive Tests
“Many educators feel a growth measure is the fairest system of accountability, because it takes into account the well known fact that some schools have high proportions of low achieving students, and we really need to concern ourselves with whether schools are earning a year’s worth of growth in a year’s time.”

Jim Angermeyer, Director of Research and Evaluation, Bloomington Public Schools
Growth-Model Tests

Description: Growth–model tests are not a test type but rather an approach that assesses school and student progress over time.

Key Characteristics of growth-model tests that measure individual student growth:

- Consecutive tests are used to measure the same content
- Consecutive tests need to be valid and reliable and have a minimum amount of measurement error. Most measurement error occurs from a test that is too difficult or too easy for a student.
Adaptive Tests

- Adaptive tests enhance the ability to measure and report the growth of all students.
- Adaptive tests match the difficulty of the questions to the performance of the student.
- An example of an adaptive test is Northwest Evaluation Association’s Measures of Academic Progress (NWEA MAP)
The problem... “We’re supposed to think that [testing] is providing greater transparency about the performance of students, teachers, and schools. In fact, the very opposite is happening: proficiency standards in math and reading vary erratically, almost randomly, from state to state, grade to grade, year to year. Parents cannot be sure that they are getting accurate feedback on how their children are really doing in school – or how their kids’ school, school system or state is really doing.” – The Fordham Institute President Chester E. Finn Jr., Education Vital Statistics

The problem... NCLB accountability focuses on passing rates and fails to acknowledge the different and significant influences from in-school and out-of-school. Schools are currently not evaluated by student growth but by whether or not they pass a specific test.
The future of testing...

- New approaches will increasingly be merged with traditional tests to produce standardized tests that are capable of measuring individual student’s ability and growth and will ideally inform instruction for that student. (i.e. NWEA adaptive tests are norm-referenced tests, able to measure growth from test to test and are adapted to student skill levels providing increased accuracy).

- Standardized testing will continue to be influenced by the digital age and will engage new tools to better measure students’ critical thinking skills and aptitude. – Emily Johns, Star Tribune, April 13, 2009

- New models of assessment that will measure both content and skills are emerging and hold the potential to move us toward an assessment system that is more aligned with what students need to know.

- What students *can do with knowledge* rather than *what knowledge they have* will be the essence of 21st century skills.
“Designing assessments that measure newly important skills presents challenges, but that should not be an excuse for failing to evaluate what students know and are able to do.” – Elena Silva, senior policy analyst, Education Sector, Washington, D.C., Phi Delta Kappan, May 2009