

High-Stakes Tests

A position of the National Council of Teachers of Mathematics

Question

What is the role of large-scale testing in making significant, high-stakes decisions about schools, students, and instruction?

NCTM Position

The National Council of Teachers of Mathematics recognizes the importance of measuring the learning of students and the effectiveness of instruction. Large-scale tests can and should be among several measures that are used to make significant decisions about students and instruction. However, such critical decisions about students and instruction must involve more than the results of any single test. We strongly support a balance of day-to-day classroom assessments, which help teachers improve instruction, and external tests that track progress and provide for national comparisons.

Large-scale tests are widely used in decisions related to promotion, graduation, admission to college, and school accreditation. Some view such high-stakes testing as a way to raise expectations and to hold students, teachers, and administrators accountable. Basing major decisions about students, teachers, schools, or instructional programs on a single test is inappropriate and inconsistent with what we know about learning and assessment. Tests, after all, are snapshots that capture one event in one context rather than a wide array of events in multiple contexts. The results of large-scale tests must be balanced against a broader sampling of student performance.

Valid, reliable large-scale assessments are useful and important tools for examining students' progress and making a variety of comparisons. However, because they may not measure the full range of important mathematics, they must be combined with a more complete sampling of student performance. This sampling might include classwork, tests, quizzes, observations, projects, and interviews. Such a collection of both informal and formal assessments can provide teachers and others with a more complete picture of student performance. By contrast, placing too much emphasis on a single test or on testing can undermine the quality of education and jeopardize equality of opportunity.

Given the pressures of high-stakes testing, teachers may commit too much instructional time to the mathematics that appears on tests. This mathematics is often limited to what can be readily tested in multiple-choice format. Furthermore, many large-scale tests focus disproportionately on simple mathematical outcomes. According to a recent study, "The most challenging standards and objectives are the ones that are undersampled or omitted entirely ... [and those] that call for high-level reasoning are often omitted in favor of much simpler cognitive processes." (Achieve, 2003)

Assessment can and should be used to measure students' growth and inform instruction. Using information from a range of assessments, teachers can diagnose students' difficulties and strengths and modify instruction so that all students can increase their mathematics learning. Such a range of assessments should also be considered for high-stakes decisions about students and the effectiveness of instruction at the school and district level.