Carnegie Perspectives
A different way to think about teaching and learning

My Child Doesn't Test Well

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Abstract: The author examines a variety of reasons why test performance may *not* always be a valid measure of a person's competence or potential.

Essay:

We've heard it countless times. "Not testing well" most often refers to poor performance on standardized, multiple-choice tests. Rarely does it refer to performance on classroom examinations and other schoolwork. In fact, it is precisely because school performance and test performance are at odds that the statement is likely invoked. Perhaps the most spectacular example of not testing well is that of Martin Luther King, Jr. An excellent student, King (who entered Morehouse College at the relatively young age of sixteen) performed miserably on the Graduate Record Examination (GRE), scoring in the bottom decile on both the math and verbal sections. As we all know, however, he was "high verbal" by virtually any other measure: a gifted orator, author of seven books and a string of brilliant essays, including the impassioned and eloquent "Letter from Birmingham Jail." To be sure, the GRE verbal is not intended as a measure of writing ability, but it is nevertheless astounding that a gifted writer and orator like King would do so poorly on this examination.

It turns out that a sizable percentage of students perform well in their schoolwork but poorly on standardized, multiple-choice tests. Some may question whether this is a genuine phenomenon at all, arguing that low expectations and standards, and rampant grade inflation result in school "high performance" that is largely illusory. But I believe the phenomenon is real. There are students who genuinely perform well in school, but consistently do poorly on standardized tests of academic achievement. So what are the causes of poor test performance in the context of otherwise successful schoolwork?

I would propose four candidates: (1) test anxiety, (2) lack of test sophistication (or test-wiseness), (3) lack of automaticity and (4) test bias.

Test anxiety. Test anxiety is characterized by anticipatory feelings of dread and nervousness before a test and a disorienting anxiety during the actual test that, in its extreme forms, can literally paralyze the student. The more important the test, the more severe the anxiety. Students will forget simple declarative knowledge and procedural operations that they have long mastered. Mild anxiety is not the issue, and in fact may even facilitate test performance. But extreme anxiety can be quite debilitating and can result in serious underestimation of the student's basic scholastic ability and achievement.

Lack of Test Sophistication. Test sophistication (or test-wiseness) is the ability to use characteristics and formats of the test and the test-taking situation to obtain a higher score. There are two different, but probably related, abilities involved in test-wiseness. First, *general* test-wiseness is the ability to take advantage of the testing situation independent of any particular test or testing purpose. It is therefore applicable to virtually all testing situations. Two examples are: (1) for tests with a time limit, the judicious allocation of time, such as not spending too much time on any one item or exercise, and (2) when there is a penalty for guessing, knowing that if you can eliminate at least one alternative, it is to your advantage to guess.

Second, *specific* test-wiseness is the ability to take advantage of flaws or clues in a particular test. In a series of studies conducted during the 1970s, Fred Pyrczak found that some students could correctly identify the right answer in a reading comprehension test *without having read the passage*. The researcher noted that the correct answer in many of these situations tended to state general principles, rather than specific, concrete facts. Students may also have been able to use information from other items tied to the same passage to guess the right answer. In any event, the problem is a result of faulty test design.

Students who are not test-savvy may well be at a disadvantage, but I believe test sophistication is overemphasized. At best, test sophistication accounts for only a small part of test variance. Most students today are accustomed to multiple-choice tests, separate answer sheets, and penciling in ovals. Even coaching schools for college and professional school admissions tests spend far more time on the actual content of the test than such things as optimal guessing strategies and time allocation. In the final analysis, test sophistication is little more than a set of principles that can be applied by virtually all students.

Automaticity. The third source of not testing well, lack of "automaticity," may well be the major culprit. In the context of test taking, automaticity refers to the ability to recall quickly relevant facts, procedures and routines and to apply these without thinking too much about it. Years ago, I identified high school students in the Pittsburgh, Pennsylvania, public schools who had done well in their high school math sequence, but poorly on the SAT. I recorded think-aloud protocols of the students attempting to solve selected math problems from a retired form of the SAT. Their test performance was

characterized by a gross inefficiency almost entirely traceable to not having "automated" arithmetic and algebraic routines. Simple things like multiplying single-digit numbers and dividing by a fraction were time-consuming digressions. One student even reached for a calculator when he had to multiply a number by 100! In the verbal domain a lack of automaticity most likely results from not reading a lot, and by a limited vocabulary. In reading comprehension tests, students are often unable to discern the voice and intent of the writer. Persons who read slowly and deliberately are also at a disadvantage, especially if individual reading passages are lengthy.

Test Bias. Test bias is a huge topic about which literally volumes have been written. It is far too complex and involved to do it justice here. Suffice it to say that "not testing well" can be traced in many instances to the simple fact that standardized tests may contain material that many students have not had an opportunity to learn. To the extent that this is so, not testing well may be the result of one form of test bias.

Perhaps the lesson here is that those who make important decisions about people on the basis of standardized test performance must keep an eye out for cases where students who should excel, don't. A mechanism must be in place to insure that the tail is not wagging the dog; poor test performance should not trump a person's actual academic or occupational accomplishments.

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