“Teaching to the test” is generally viewed as a bad thing, whether it comes up in news reports, parent conversations, or legislative debates. In the classroom, however, teaching to the test can cover a variety of activities — from outright cheating, to drilling students in practice questions that look a lot like test items, to good teaching of important knowledge and skills. As a general rule, any form of teaching to the test is inappropriate if it raises test scores without also increasing students’ knowledge and skills in the broader subject being tested.

When inappropriate or questionable forms of teaching to the test do occur, it’s usually the teachers who are blamed. Cheating is inexcusable. But other types of teaching to the test are widespread. In one nationally representative survey, 79% of teachers said they spent “a great deal” or “somewhat” of their time instructing students in test-taking skills, and 53% said they used state practice tests a great deal or somewhat (Quality Counts 2001). Most teachers have reservations about this trend; two-thirds felt their teaching had become too focused on state tests.

The real fault for inappropriate forms of “teaching to the test” lies not so much with teachers, but with state and national policymakers. These leaders have created accountability systems centered on higher test scores, with little regard for how these scores are attained.

In today’s climate of “high-stakes” testing, students in some states will not graduate or be promoted unless they pass a state test. Teachers are being held
accountable for ensuring that their students meet academic standards and pass state tests. Principals and superintendents are being held accountable for raising average test scores each year at the school and district levels. Schools with rising test scores often receive rewards, while those with falling scores must undergo various kinds of restructuring. In this pressure-cooker environment, many teachers and administrators feel they have to use whatever legitimate means they can to improve test scores.

The heat is being turned up even more with passage of President Bush’s “No Child Left Behind Act.” This new federal law requires states to annually test students in grades 3 through 8 and take corrective actions in schools that don’t improve their test scores. Currently, most states give tests in only a few of these grades, so the new law will mean even more testing and higher stakes for students, teachers, and schools.

State and national leaders must be held accountable, too.

Policymakers — whether the President, members of Congress, governors, state legislators, or state education officials — must recognize that they can’t keep demanding higher test scores without also paying attention to how their demands affect teaching and learning, in both positive and negative ways. If you are a state or national leader, you have a responsibility to help prevent bad or questionable forms of teaching to the test and encourage good practices.

Here are some concrete things you can do to accomplish this goal:

1. **High-quality standards.** Ensure that state standards are challenging, worthwhile, coherent, and focused. Place priority on the “big ideas” and most important skills in a particular subject and make sure that teachers and students understand these priorities.

2. **Curriculum and instructional support.** Translate standards into curriculum that is specific enough to help teachers plan daily lessons. Provide teachers with various kinds of support to help them improve classroom teaching.

3. **Well-designed assessments.** Make sure that state tests are valid, fair, reliable, and well aligned with standards and curriculum. Revise state testing systems to include a variety of item formats that measure both basic and more advanced knowledge and skills. Include test items that reward good teaching — in other words, items that students are likely to answer correctly if they have mastered the standard embodied in the test question. Consider ways to avoid reusing large numbers of items in state assessments.
4. **Accountability.** Design accountability systems that reward good teaching and encourage attention to all important standards and subjects. Use other means to assess progress in standards and subjects not covered by state tests. Set realistic targets for improvement by schools or districts.

5. **Professional development.** Provide teachers with professional development in effective ways to help students master the content in state standards. Strengthen the handling of testing issues in teachers’ preservice education and professional development.

6. **Help for students.** Provide students with the extra time and attention they may need to master the academic knowledge and skills contained in state standards. This may entail more intensive instruction during the school day, or time after school or during the summer.

7. **Better information.** Educate yourself about issues of test security and good and bad test preparation. Support efforts to educate teachers, administrators, parents, students, and others about these issues. Make people aware of the negative consequences of violating test security and the harm that comes to students from bad forms of teaching to the test.

8. **Clearer policies.** Take a close look at your own state policies regarding test security and administration and clarify any confusing or gray areas. Examine state policies about test preparation to make sure they encourage good instructional practices. For example, what kinds of test practice materials does your state provide? Are there guidelines about how much time teachers should or should not spend on direct test preparation?

9. **Monitoring impacts.** Systematically monitor the intended and unintended effects of standards-based testing and accountability. Watch out for possible score inflation by tracking trends in state tests, questioning “miraculous” gains, and comparing state test scores with scores on other assessments and other measures of progress. Collect data about bad, questionable, and good forms of teaching to the test and share this information with teachers.
What Is Teaching to the Test?  
And What’s Wrong with It?

Issues of teaching to the test — what it is, how often it goes on, and whether it’s acceptable in any form — are becoming more serious and controversial as a result of state and federal education reforms. To help clarify these issues, the Center on Education Policy reviewed studies of the impact of testing, as well as press reports of real situations involving cheating, coaching, and good, middling, and bad forms of test preparation.

We found, first of all, that many people are confused or disagree about exactly what the term “teaching to the test” covers. (The tests at issue here are the state-mandated, district-mandated, or standardized tests that students take once or twice a year, not the classroom quizzes or end-of-unit tests that teachers give regularly.) In its extreme form, it means cheating — for example, giving students actual questions from a secure version of a test. In its more common forms, teaching to the test means direct preparation for a particular test, such as drilling students in practice questions, teaching students how to fill in answer sheets, or focusing instruction on a limited subset of skills and knowledge most likely to show up on the test. Although these practices are permissible, they may not be educationally sound in large doses. In its rarer forms, teaching to the test can also have a positive meaning, when teachers focus instruction on the most important knowledge and skills contained in high-quality state standards and measured by well-designed tests.

The situation is also confusing because the lines between proper and improper test preparation are not always clear or well-publicized. Moreover, policies vary among different states and different tests, and some policies are ambiguous. It’s no wonder many teachers, administrators, and parents are perplexed.

As a starting point for clearing up the confusion, it helps to remember that the ultimate purpose of any test is to improve teaching and learning. Some forms of test preparation are very far from this ideal, while others move closer toward it. As a general guideline, a test preparation practice is inappropriate if it raises test scores without also improving students’ mastery of the broader subject being tested.

But don’t higher test scores mean more learning? Not necessarily. Tests are designed to provide a sample of a student’s knowledge and skills in a particular subject. (Testing experts sometimes use the term “domain” to refer to the subject or field of knowledge being tested. A domain can be specific, like fractions, or very broad, like math.) For example, sixth graders are expected to learn many things about math — far more than can be tested in a few hours. The state math test that students take in the spring covers only a small sample of everything they were supposed to learn during the year. If the test is well-designed, this sample will represent a reasonable subset of the important knowledge and skills of sixth-grade math. Based on this sample, teachers can make rational inferences about how well their students understand the broader domain of math and can adjust their teaching accordingly.

But when teachers teach directly to the specific questions on a test (called “items”), the resulting scores are likely to give an inflated picture of students’ understanding of the broader domain. For example, a teacher who is familiar with a state English
This page contains text discussing the impact of teaching to the test and the ethical considerations involved. It highlights how certain practices can undermine educational goals and the value of tests. The text also provides examples of bad practices and the consequences that can result from them. Additionally, it discusses the need for clear communication of security policies and the importance of not using outdated test materials.

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**Bad Practices**

The Center on Education Policy has looked into various forms of teaching to the test and grouped them along a spectrum, from worst to best. Our groupings are based on the guideline of whether a practice improves students’ mastery of the broader domain. At one end of the spectrum are outright cheating and other unethical practices that violate professional test standards. Examples include:

- getting hold of actual test questions from a current test form and teaching students the answers;
- giving students actual test questions for drill, review, or homework; or
- copying, distributing, or keeping past versions of a test that have not been officially released as practice exams.

Recent incidents of cheating have been reported in every region of the country, but statistics about how often this occurs are scarce. A 1991 study by researchers Lorrie Shepard and Katharine Cutts Dougherty asked educators in two large school districts how often teachers in their school engaged in a long list of inappropriate test practices. About 11% said that teachers “often” or “frequently” had students practice on items from the test itself. In a 1990 survey of North Carolina teachers by Genevieve Gay, 35% of those responding said they had either seen other teachers engage in inappropriate activities, such as directly teaching sections of the test, or had done it themselves. (Both studies are cited in Cizek, 1999).

When people cheat deliberately, it must be dealt with forcefully. But some infractions happen because teachers aren’t sure what’s allowable and what isn’t. Although most states have written security policies for high-stakes exams, these policies are not always communicated clearly to administrators or teachers. Commercial test developers also have different security protocols for different tests.

Some administrators and teachers may not realize that a testing program may reuse the same test questions, or the same entire test version, from year to year. Most state and national testing programs do officially release prior test versions for practice, and it’s all right for teachers to use them in this way. But officially released versions are clearly labeled as such. Otherwise, people should assume that any copy of a test is secure and follow the security precautions for that test. Security breaches are serious business and can be grounds for dismissal, revoking of a teacher’s license, or even legal charges.

Studies confirm that many teachers and principals are unclear about where the line is between ethical and unethical practices. In a 1991 survey by W. James Popham, 14% of teachers surveyed in the Midwest and 36% of teachers surveyed in California believed it was okay for students to practice with a current form of the state social studies test. School officials allege that the teacher obtained the questions illegally when he oversaw an earlier test in another subject and took advantage of the opportunity to read the social studies section of the test booklet. (Education Week, 6/21/00)
And 17% of the Midwestern principals and 6% of the California principals agreed (Popham in Cizek, 1999).

Preventing bad practices takes more than just keeping test questions under lock and key. State officials, test producers, and other groups that develop and administer tests need to do a better job of clearing up ambiguities and actively educating administrators and teachers about proper and improper test use.

Middling Practices — Use with Care

The middle of the teaching-to-the-test spectrum includes a range of practices that should be used with care. Some of these emphasize test format, while others focus on test content. Much of the controversy and confusion about teaching to the test revolves around these mid-spectrum activities.

Format preparation

Teachers often instruct students in general test-taking skills or try to familiarize them with the formats of a particular test. Examples include:

- teaching students how to fill in the bubbles on answer sheets, narrow down choices in a multiple-choice question, write a short answer response, or pace oneself;
- assigning homework and practice questions that resemble real test items;
- teaching from state-endorsed or commercially-developed practice materials designed to go along with a particular test; or
- giving writing assignments in the same format as the writing portions of a specific test.

Students obviously need some exposure to test-taking skills, so their performance won’t be hampered by inexperience. But this kind of teaching to the test can cross the line of acceptability when it takes up too much time, becomes the main focus of teaching, or uses practice exercises that are near-clones of real test questions.

Instruction in test-taking skills is common and not limited to the weeks before a major test. In a nationally representative survey of K-12 public school teachers sponsored by Education Week, 79% of teachers responding said they spent “a great deal” or “somewhat” of their time instructing students in test-taking skills (Quality Counts, 2001). Fifty-three percent reported using state practice tests a great deal or somewhat, and 49% said they used commercial test preparation materials a great deal or somewhat. Many teachers were not happy with this trend: two-thirds of those surveyed felt their teaching had become too focused on state tests.

Teachers in states with high-stakes testing use these kinds of test preparation strategies more often than teachers in states with moderate- or low-stakes testing, according to a nationally representative survey by researchers at Boston College (Pedulla et al., 2002). Teachers in states with high-stakes tests also were more likely to say they felt intense pressure to raise test scores.

Large majorities of parents (66%) and employers (64%) responding to a 2002 poll by Public Agenda also agreed that “with standardized tests, teachers will end up...
teaching to the test instead of making sure real learning takes place,” but even so, most parents and others felt that these tests played a useful role.

Data from states with high-stakes testing suggest that teachers spend considerable time teaching to the test. In Texas, James V. Hoffman and his colleagues (2001) asked reading teachers and supervisors to rate how often teachers in their school engaged in various kinds of test preparation. The study used a scale of 1 to 4, in which 1 stood for never, 2 for sometimes, 3 for often, and 4 for always. The responses were averaged to produce a composite score. Most of those surveyed said that teachers engaged in the following activities “often” or “always” (a composite score of between 3 and 4):

■ Teaching test taking skills — 3.5;
■ Having students practice with tests from prior years — 3.4;
■ Using commercial test preparation materials — 3.4;
■ Giving general tips on how to take tests — 3.4; and
■ Demonstrating how to mark an answer sheet correctly — 3.2.

These activities took place throughout the Texas school year, but peaked in the months before the state test. They were also more frequent in schools with low test scores.

For the past several years, Maryland’s state assessment program has emphasized higher-order skills, open-ended questions, and complex tasks. Maryland teachers also teach test-specific skills, according to a 1996 study by researcher Daniel Koretz and his colleagues. Eighty-six percent of the Maryland teachers said they focused on practice tests for more than a small amount. At least some of the impetus for this seemed to come from principals. About three-fourths of the principals surveyed said they encouraged teachers “a great deal” to use released items from past state tests and other test preparation materials.

A key issue is whether direct teaching of test-like questions helps students master the subjects being tested. Studies by the RAND think tank and other research groups suggest that although this kind of test preparation may boost scores, at least in the short run, it does not necessarily produce real gains in understanding that show up on other tests or performance measures or that students can apply in a non-testing situation. It also cuts into the time available for direct instruction in key academic subjects. Consider these findings:

■ A study of 18 states with high-stakes testing compared trends in state test scores with long-term trends on other standardized tests (Amrein & Berliner, 2002). The researchers found that in more than half of these states, performance went down on the ACT, SAT, and the math test of the National Assessment of Educational Progress (NAEP). The study concluded that higher state test scores were most likely due to direct test preparation, rather than increased student learning, and to differences in how many students were excluded from testing based on disabilities or limited English proficiency.

■ Three-quarters of fourth-grade teachers surveyed by RAND in Washington State, and the majority of principals, believed that better test preparation (rather than increased student knowledge) was responsible for most of the
score gains on the state test. The percentage of seventh-grade teachers who believed this was even higher (Stecher et al., 2000).

- In Kentucky’s state assessment, scores went up on test items that were reused, then dropped when new items were introduced. This discrepancy between new and reused items was larger in schools that had greater overall test score gains, a relationship that suggests students were being coached on reused items (Koretz & Barron, 1998).

**Content preparation**

Since the typical state test covers only a very small sample of the knowledge and skills in a given subject, teachers sometimes adjust their teaching to emphasize the content or skills most likely to be tested. Examples of this type of teaching to the test include:

- drilling students in basic knowledge and skills, such as discrete facts, math computation skills, and routine problems, while giving relatively less attention to more advanced skills;
- teaching topics or aspects of a subject that have been covered on past exams or are most readily assessed by multiple-choice or other common test formats;
- teaching students phrases to use in their answers to open-ended or essay test questions; or
- spending significantly more class time on subjects that are tested and less time on subjects that are not, whether social studies, science, civics, or art.

Although these forms of teaching to the test do help students learn content, they can also have a narrowing effect on instruction. Most state-mandated tests (with a few notable exceptions) address aspects of achievement that can be easily measured with paper-and-pencil tests in a limited amount of time. Complex knowledge and skills — such as the ability to design and carry out a science experiment, write a research paper, solve a lengthy math problem, or work collaboratively on a group project — are tested less often. So teachers tend to prepare students for state tests by emphasizing basic knowledge and skills, at the expense of worthwhile conceptual knowledge, problem-solving strategies, and other “higher-order” skills.

This kind of teaching limits students’ opportunities to think deeply about important concepts, integrate what they are learning, or apply their knowledge and skills to real situations that don’t follow the typical test format. It can also deprive students of learning activities that are time consuming but intellectually stimulating, such as doing interdisciplinary projects, reading and discussing books, making oral presentations, or putting on plays.

Teaching to the content of the test is widespread. Almost two-thirds (65%) of the public school teachers responding to the 2001 *Education Week* survey mentioned above said they had changed what they taught to fit the content of state tests. About as many (66%) said they were concentrating on tested information to the detriment of other important areas of learning.

Teachers in states with high-stakes testing were more likely to change their teaching in this way, according to the Boston College teacher survey. Forty-three percent of teachers in these states said instruction in tested areas had risen “a great
deal,” compared with just 17% of teachers in states with moderate- or low-stakes testing. Twenty-five percent of teachers in high-stakes states said instruction in non-tested areas had decreased, compared with just 9% of teachers in moderate-to-low stake states.

Further insights about this trend come from studies of Washington State and Texas. The RAND study of Washington State concluded that teachers were spending more time on tested subjects than before and found some evidence that teachers were narrowing instruction to focus on tested content, while ignoring some critical content of the broader domain. In the study of Texas reading teachers by Hoffman and colleagues, 85% of teachers said that educators in their school were giving less attention to subjects that weren’t on the state test. One teacher had this to say about how the timing of state tests drove their teaching: “At our school, third and fourth grade teachers are told not to teach social studies and science until March.”

**Good Practices**

The goal of standards-based reform is to improve education by raising academic expectations and specifying which knowledge and skills are important for students to learn. Changing what and how teachers teach is the whole point. When standards, tests, and accountability systems are well-aligned, high in quality, and compatible with a rich curriculum, teaching to the test can have a positive meaning. It can signify that teachers are teaching students what they need to know, as defined in state standards. This type of teaching to the test is pretty much the same as good teaching. Examples include:

- covering the most important knowledge, skills, and concepts contained in the standards for a particular subject;
- addressing standards for both basic and higher-order skills;
- using test data to diagnose areas where students are weak, and focusing instruction on those areas; and
- giving students diverse opportunities to apply and connect what they are learning and demonstrate true mastery of standards.

Studies in some states suggest that standards and assessments have spurred positive changes in teaching. The RAND Washington State study found that teachers were more frequently using strategies that focused broadly on improving student writing, rather than strategies that focused narrowly on preparing students for the state writing assessment. Math teachers had also changed their instruction to give more attention to key math concepts and higher-order skills. For example, teachers were more likely to encourage students to draw conclusions and verify results, investigate situations, and organize and interpret data. They were also asking students open-ended questions with more than one correct answer, urging students to explain their thinking to their peers, and assigning students to write about mathematics.

A study of New Jersey teachers by Rutgers University researchers found that the state’s elementary school assessments in math and science, which include a mix of test item formats, had encouraged teachers to place greater emphasis on writing, problem-solving, use of hands-on materials, and student discussion and explana-
tion of their thinking (Firestone et al., 2001). These practices were less common in the state’s poor urban districts, however, where teachers were more likely to emphasize drill-oriented instruction.

Whether teachers can effectively teach a standards-based curriculum depends on many factors beyond their own desire and expertise. The quality of tests — having “tests worth teaching to,” as some observers say — is just one factor. Others include the quality of state standards; the degree of alignment among the standards, tests, and curriculum actually taught in schools; the resources available for translating standards into classroom lessons; the availability of professional development focused on teaching a standards-based curriculum; and the kinds of incentives built into the state accountability system.

One notable dilemma faced by teachers is figuring out how to boil down long lists of state standards into a manageable number of classroom lessons. Choices must be made, and without sufficient state guidance or specific curriculum, the state test often becomes the de facto curriculum. If state policymakers want to encourage positive forms of teaching, they must produce standards that are not only challenging and coherent, but also sufficiently focused and prioritized. States must give teachers better guidance and professional development about how to translate standards into day-to-day lessons and instructional targets, and how to use detailed test data to diagnose student needs and revise instruction.

This is a tall order that most states have not yet met. Achieve, Inc., a group that evaluates state standards, concluded that the standards in several states are too vague or all encompassing. The Education Week survey found that 7 of 10 teachers said they didn’t have enough time in the school year to cover everything in their states’ standards. Elementary and middle school teachers were even more likely to say this was a problem.

In addition, many state tests are not well aligned with state standards and do not yield enough useful diagnostic information for teachers. An analysis of Achieve, Inc. data in Quality Counts 2001 concluded that standards and tests are not aligned closely enough in most states. Often the tests measure some standards but not others, and stress the less demanding knowledge and skills in the standards. Students are being shortchanged, because important concepts that are not tested are less likely to be emphasized in the classroom.

When test results showed that Brockton High School students were having problems writing answers to open-ended test questions, the school took action to promote writing in every subject. Teachers from all departments were trained in writing. Teachers also met regularly with university faculty to analyze their students’ writing samples, compare them with state standards in writing, and discuss how a particular sample might be scored on the state English exam. (Massachusetts releases past examples of student work that earned high scores on open-ended test questions, along with explanations of why certain answers were scored as they were.) Brockton’s attention to writing paid off. Scores went up on open-ended questions, and passing rates improved on state graduation exams. Despite a strong anti-testing backlash in Massachusetts, many Brockton teachers and students believe that state standards and assessments have helped them focus on critical skills.

(Massachusetts, 2001)
Conclusion

The pressure of state tests and accountability systems is spurring teachers and administrators to engage in various kinds of “teaching to the test.” It’s unfair to put all the blame on teachers for questionable forms of test preparation. Much of the fault lies with state and national policymakers, who have created accountability systems that demand higher test scores, while paying little attention to how those scores are achieved. The new testing provisions of President Bush’s No Child Left Behind Act will turn up the heat even more.

Although cheating is never acceptable, recent cases suggest that teachers and administrators do not always understand where the line is between proper and improper test preparation. State officials, test producers, and others need to do a better job of clarifying and explaining what’s permissible and what’s not.

The most common forms of teaching to the test — drilling students in practice questions, teaching test-taking skills, and focusing instruction on a limited set of “tested” knowledge and skills — are widespread. Some of these practices can be useful in small doses but unhealthy in large. These kinds of intensive test preparation can also produce “inflated” score gains on state tests that are not corroborated by other tests and do not signify that students have really learned more about the broader subject being tested.

Positive forms of teaching to the test are far less common, because they require that states have in place a system of well-designed and well-aligned standards, curriculum, and “tests worth teaching to.” Most states standards are not sufficiently focused or prioritized, and most states have not adequately translated their standards into curriculum guidance. State tests also have a way to go in their alignment with standards and their coverage of the most important knowledge, concepts, and skills in a domain. Without these characteristics, the test often takes precedence over the standards it is meant to represent or the learning it is meant to motivate.

State and national leaders have a responsibility to discourage bad forms of teaching to the test and encourage good practices. They can begin immediately by taking steps to improve state standards, curriculum guidance, and tests, and taking a hard look at state and federal accountability systems. In the process, leaders should keep in mind that test scores are a tool to improve teaching and learning — and not the other way around.