

As we said in one of the last mailings you received, our MDE Superintendent chose to alleviate the creative writing portion of the exit exam for high school students because over 35% of the students failed. One reason that he gave was that there were too many tests. We applauded the decision because there are, in fact, too many tests.

Unfortunately, another reason that he gave was that the children didn't know how to write creatively. We see a problem with that. What he meant was that they didn't know how to write creatively within the constraints of the computer or "computer-like-people" who grade these tests. We believe that the parameters are too narrow. We believe as the author of this next article does that the habit of creativity remains under-developed. Could we be spending too much time teaching to the test?

Robert Sternberg is one of the early writers in the area of Emotional Intelligence.

## EDUCATION WEEK

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COMMENTARY

# Creativity Is a Habit

By Robert J. Sternberg

The increasingly massive and far-reaching use of conventional standardized tests is one of the most effective, if unintentional, vehicles this country has created for suppressing creativity.

**Creativity is a habit. The problem is that schools sometimes treat it as a bad habit. And the world of conventional standardized tests we have invented does just that. Try being creative on a standardized test, and you will get slapped down just as soon as you get your score. That will teach you not to do it again.**

**It may sound paradoxical that creativity—a novel response—is a habit, a routine response. But creative people are creative largely not by any particular inborn trait, but because of an attitude toward their work and even toward life: They habitually respond to problems in fresh and novel ways, rather than allowing themselves to respond in conventional and sometimes automatic ways.**

**Like any habit, creativity can either be encouraged or discouraged. The main things that promote the habit are (a) opportunities to engage in it, (b) encouragement when people avail themselves of these opportunities, and (c) rewards when people respond to such encouragement and think and behave creatively. You need all three. Take away the opportunities, encouragement, or rewards, and you will take away the creativity. In this respect, creativity is no different from any other habit, good or bad.**



— Bob Dahm

Suppose, for example, you want to encourage good eating habits. You can do so by (a) providing opportunities for students to eat well in school and at home, (b) encouraging students to avail themselves of these opportunities, and then (c) praising young people who use the opportunities to eat well. Or suppose you want to discourage smoking. You can do so by (a) taking away opportunities for engaging in it (by prohibiting smoking in various places, or by making the price of cigarettes so high people scarcely can afford to buy them), (b) discouraging smoking (advertisements showing how smoking kills), and (c) rewarding people who do not smoke (with praise, or even preferred rates for health- and life-insurance policies).

This may sound too simple. It's not. Creative people routinely approach problems in novel ways. Creative people habitually: look for ways to see problems that other people don't look for; take risks that other people are afraid to take; have the courage to defy the crowd and to stand up for their own beliefs; believe in their own ability to be creative; seek to overcome obstacles and challenges to their views that other people give in to; and are willing to work hard to achieve creative solutions.

TALKBACK  
Join the discussion, "[The Creative Habit](#)."

Educational practices that may seem to promote learning may inadvertently suppress creativity, for the same reasons that environmental circumstances can suppress any habit. These practices often take away the opportunities for, encouragement of, and rewards for creativity. The increasingly massive and far-reaching use of conventional standardized tests is one of the most effective, if unintentional, vehicles this country has created for suppressing creativity. I say "conventional" because the problem is not with standardized tests, per se, but rather with the kinds of tests we use. And teacher-made tests can be just as much of a problem.

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Conventional standardized tests encourage a certain kind of learning and thinking—the kind of learning and thinking for which there is a right answer and many wrong answers. To create a multiple-choice or short-answer test, you need a right answer and many wrong ones. Problems that do not fit into the right answer-wrong answer format do not lend themselves to multiple-choice and short-answer testing. Put another way, problems that require divergent thinking are inadvertently devalued by the use of standardized tests.

This is not to say knowledge is unimportant. On the contrary, we cannot think creatively with knowledge unless we have the knowledge with which to think creatively. Knowledge is a necessary, but in no way sufficient, condition for creativity. The problem is that schooling often stops short of encouraging creativity. Teachers and parents are often content if students have the knowledge.

Examples of ways to encourage creative thinking are legion. If students are studying American history, they might take the opportunity to think creatively about how we can learn from the mistakes of the past to do better in the future. Or they can think creatively about what would have happened, had a certain historical event not come to pass, such as the Allies' defeat of the Nazis in World War II. But there is no one "right" answer to such questions, so they are not likely to appear on a conventional standardized test. In science, students can design experiments, but here again, such activities do not fit neatly into a multiple-choice format.

In literature, alternative endings to stories can be imagined, or what the stories would be like if they took place in a different era. In mathematics, students can invent and think with novel number systems. In foreign languages, they can invent dialogues with people from other cultures. But the emphasis in most tests is on the display of knowledge, often inert knowledge that may sit in students' heads, yet be inaccessible for actual use.

Essay tests might seem to provide a solution to such problems, but as they are typically used, they don't. Increasingly, essay tests can be and are scored by machine. Often, human raters of essays provide ratings that correlate more highly with machine grading than with the grading of other humans. Why? Because they are scored against one or more implicit prototypes, or models of what a "correct" answer should be. The more the essay conforms to one or more prototypes, the higher the grade. Machines can detect conformity to prototypes better than humans, so essay graders of the kind being used today succeed in a limited form of essay evaluation. Thus, the essay tests that students are being given often do not encourage creativity—rather, they discourage creativity in favor of model answers that conform to one or more prototypes.

Oddly enough, then, the very "accountability" movement that is being promoted as fostering solid education is, in at least one crucial respect, doing the opposite: It is discouraging creativity at the expense of conformity. The problem is the very narrow definition of accountability involved. But proponents of this notion of accountability often make it sound as though those who oppose them oppose any accountability, whereas they in fact may oppose only the narrow form of accountability conventional

tests generate. The tests are not “bad” or “wrong,” per se, just limited in what they assess. But they are treated as though they assess broader ranges of skills than they actually do.

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Why is creativity even important? It is important because the world is changing at a far greater pace than it ever has before, and people need constantly to cope with new and unusual kinds of tasks and situations. Learning in this era must be lifelong, and people constantly need to be thinking in new ways. The problems we confront, whether in our families, communities, or nations, are novel and difficult, and we need to think creatively and divergently to solve these problems. The technologies, social customs, and tools available to us in our lives are replaced almost as quickly as they are introduced. We need to think creatively to thrive, and, at times, even to survive.

But this often is not how we are teaching children to think—quite the contrary. So we may end up with “walking encyclopedias” who show all the creativity of an encyclopedia. In a recent best seller, a man decided to become the smartest person in the world by reading an encyclopedia cover to cover. The fact that the book sold so well is a testament to how skewed our conception has become of what it means to be smart. Someone could memorize that or any other encyclopedia, but not be able to solve even the smallest novel problem in his or her life.

Encouraging the creativity habit does not mean forsaking evaluation. Essays, projects, and performances can be evaluated for creativity in terms of how novel they are (originality), how good they are (quality), and how appropriate they are to the assignment that was given. Research by Teresa Amabile at the Harvard Business School, as well as by my own group at the Center for the Psychology of Abilities, Competencies, and Expertise, currently at Yale and soon moving to Tufts, shows that raters can be trained to assess creative thinking reliably and validly.

If we want to encourage creativity, we need to promote the creativity habit. That means we have to stop treating it as a bad habit. We have to resist efforts to promote a conception of accountability that encourages children to accumulate inert knowledge, with which they learn to think neither creatively nor critically. Rather, we should promote the kind of accountability in which students must show they have mastered subject matter, but also can think analytically, creatively, and practically with it.

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