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Why the conventional wisdom on schooling is all wrong

By Marion Brady

I've spent a lot of time trying to pinpoint the root cause of poor school performance. Here's a theory: Because education policy in America is made by non-educators in state legislatures and Congress, it's shaped by the conventional wisdom. The conventional wisdom says schooling is primarily about "delivering information." The conventional wisdom is wrong.

Delivering information isn't the problem. Kids are drowning in information, and oceans more of it is at their fingertips ready to be downloaded. What they need that traditional schooling has never given them and isn't giving them now isn't information, but *information processing skills*. They need to know how to think—how to select, sort, organize, evaluate, relate, and integrate information to turn it into knowledge, and knowledge into wisdom.

How do kids learn information processing skills? The same way they learn to walk, read, swim, write, catch a ball, keyboard, ride a bicycle. They learn by doing—learn to process information by processing information.

Let me try to explain why the delivering-information model of educating makes it almost impossible for schools to pursue the most useful, legitimate, important, satisfying, philosophically defensible aim of schooling: *improving learners' ability to think for themselves*.

Imagine a horizontal line representing a continuum of kinds of information. On the lefthand end of the line, insert the word, "Unmediated," "Unprocessed," or "Raw," for information that goes directly to our brains by way of our senses—seeing, hearing, touching, smelling, tasting. If a kid walks into a room and says, "It's too hot in here," she's created firsthand, directly experienced information.

On the right-hand end of the line, insert the word, "Mediated," "Processed," or "Refined" for information that's the product of others' thought. If I say, "Einstein said space and time are relative to the position of the observer," I'm passing along secondhand (or fifteenth-hand) information that was the product of complex thought processes in Einstein's head.

The "too hot in here" information goes to the extreme left end of the information-type continuum, creating opportunities for speculation, investigation, and wide-ranging thought processes. Did she enter the room from a colder one? Is what she's wearing affecting her perception? Is she sensing air temperature or radiated heat? Has she been

exercising? What does her metabolism have to do with what she's sensing? What does the thermometer say? What's the best way to find answers?

The Einstein information goes to the extreme right end of the continuum. All the heavylift thinking has already been done, and relatively few people know enough to do anything with the information except assume—based on Einstein's reputation—that he was right.

To help kids improve their ability to process information, they need information on or near the left-hand, raw end of the continuum, and the traditional curriculum isn't giving it to them. Open typical textbooks to almost any page, listen for a few minutes to a lecture or teacher talk, check out the reference section of a library or seek information on the Internet, and it's obvious that what's being delivered is on the far right end of the continuum. Learners can't process it—can't improve their ability to infer, hypothesize, generalize, relate, integrate, and so on—because the information delivered has already been processed to levels beyond their ability to challenge or question.

As my brother and I say in one of our short PowerPoints designed to stimulate thinking about big issues in educating, what delivered information gives kids is about as interesting and intellectually challenging as crossword puzzles with all the squares filled in. They can't do anything with the information except try to store it in memory. And, not having thought through for themselves the delivered information to a useful level of understanding, and having no immediate use for it, it goes into short-term memory, then disappears.

We're kidding ourselves if we assume those "A" grades being hung on American schools based on scores on standardized tests mean that the students who attend them are being taught to think. We're kidding ourselves if we assume the high test scores of students in Finland or Poland or South Korea mean they're being taught to think. Standardized tests are sideshows on the periphery of effective schooling because they can't evaluate original thought, without which humankind can't adapt to continuous change and survive. What matters is our individual and collective ability to make sense of the world as it was, is, and could be, and the means to that end are far too varied and complex to be measured by machine-scored tests.

There's a solution to the problem. Choose any idea in any school subject for which a solid case can be made that every kid in the country needs to understand it, and within the property boundaries of her or his school are the kinds of immediately accessible real-world prompts that allow that idea to be studied firsthand. The prompts just need to be identified and examined until they emerge from environments ignored because they're too familiar.

Don't hold your breath waiting for acceptance of the obvious fact that direct experience teaches best. It's been 99 years since Alfred North Whitehead, in his Presidential

Address to the Mathematical Association of England, said, "The second-handedness of the learned world is the secret of its mediocrity."

There are administrators and teachers not only willing but powerfully motivated to move beyond today's emphasis on mere learner (temporary) recall of delivered information, but "the system" won't let them. The system—district offices, boards of education, state legislatures, state bureaucracies, education publishers, chambers of commerce, colleges, universities, Congress, courts, philanthropic foundations, mainstream media—the system assumes that delivered information is what educating is all about, so that's what gets taught and tested and scores treated as if they meant learning had taken place.

It's gratifying to see the growing student, teacher, administrator, and parental resistance to the present misnamed "reform" effort. The rate at which testing is wasting the potential of kids' minds that don't work in standardized, text-centric ways, is inexcusable. But resistance would be far more effective if demands to stop high-stakes testing were accompanied by demands to get serious about improving thinking skills.

Given learner diversity, given the accelerating rate of social change, given an unknowable future, no one really knows what information needs to be delivered. Given the WorldWideWeb, delivering information isn't a problem. Given abundant, daily evidence of humankind's ability to create messes it doesn't know how to clean up, helping learners improve their ability to think is Job One.

Educators can solve this problem, but there's no point in their even trying as long as the rich and/or powerful are on their stumps peddling the myth that what ails America's schools are educators clinging to the status quo and kids with insufficient grit to do what they're told to do.

The "reformers" are the ones stuck in the status quo. The Common Core State Standards are the status quo with the screws tightened. High-stakes tests are the status quo with life-destroying potential for those who can't guess what the test-item writer was thinking. *No Child Left Behind* and *Race to the Top* are the status quo with performance bars raised high enough to produce failures "proving" public schools need to be handed off to charter chains or privatized.

Kids, teachers, and taxpayers are being taken for a very expensive ride to nowhere worth going.

Here, from my younger brother Howard, is a link to a pdf for those who may be interested in re-purposing schools—turning them into living laboratories that capitalize on the teaching and learning potential of immediate, here-and-now, firsthand experience:

http://www.marionbrady.com/documents/ExpandingCIR-RHRN.pdf