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The most important thing schools don't do

By Marion Brady

Prepare the young for college and careers; promote democratic citizenship; keep the U.S. economically competitive; master the core subjects; transmit societal values; instill a love of learning—those are six of about 30 aims for schooling I've found in academic journal articles.

On my list, one aim is paramount: “*Maximize learner ability to make sense.*” Not only does it enable every *other* legitimate aim of educating, it gives schooling its proper focus—maximizing human potential.

No one needs to be taught how to make sense—to think. We're born equipped to do it. The challenge is to do it better, to radically improve what are sometimes called “higher order” thinking skills, particularly those involved in tracing complex causal sequences and anticipating possible unintended consequences of well-intended policies and actions. We know how to build nuclear power generating plants, but not how to dispose of the waste they create. We know how to produce enough food to feed the world, but not how to distribute it equitably. We know how to start wars, but not how to end them or avoid them altogether. We know how to warm the planet, but not how to navigate the political complexities that stand in the way of adopting measures to stop the process.

For additional examples of problems we're not yet smart enough to solve, study history, or check any randomly chosen day's news.

Unfortunately, schools—the institutions modern societies have created to help the young maximize their ability to think—have never had well-thought-out strategies for actually improving sense-making. Beyond the primary and elementary levels, the emphasis has instead been on delivering the content of subjects considered “core”—math, science, language arts, and social studies. As those subjects are traditionally taught and tested, “thinking” is primarily a matter of recalling information delivered and, to a lesser extent, applying that information in abstract ways.

Recalling and applying are, of course, thinking skills, but what makes us fully human, and what gives humanness so much potential, is our ability to infer, hypothesize, generalize, categorize, relate, compare, contrast, correlate, describe, abstract, extrapolate, predict, sequence, integrate, synthesize, interpret, translate, empathize, value, envision, imagine, intuit.

That's 24 thought processes, most of them more complex than recalling and applying. Add to them other thought processes of which I'm not aware. Add the extremely powerful role emotions play in shaping thought. Add the fact that the actual process of sense-making integrates the processes systemically to create a whole greater than the sum of parts. Considering these

complexities, the human potential being wasted by teaching to machine-scored tests that can't evaluate the quality of sense should be obvious.

The failure of traditional schooling to significantly improve thinking skills stems primarily from the emphasis on delivering "pre-processed" information. The contents of textbooks, teacher talk, reference materials, the internet, and so on, are products of the thinking of others, leaving learners with nothing to do except try to store information in memory long enough to pass a test. That's about as interesting and intellectually stimulating as memorizing completed crossword puzzles.

Traditional schooling's emphasis on recalling exacts a heavy price – boredom, discipline problems, reliance on extrinsic motivators, the rapid disappearance from memory of information once taught, decades of flat academic performance. That list of problems having its roots in the neglect of all other sense-making processes could be extended.

Thinking skills can be significantly improved by coaching that focuses learner attention directly on immediate, "unprocessed" reality, on primary sources from past realities, and on imagined probable, possible, and preferred future realities. Learning teams can investigate their school's energy efficiency, compare attitudes toward authority of early Spanish and English settlers in America as manifested in the records they kept, analyze waste disposal procedures in their neighborhoods, predict likely consequences of demographic changes in ten or twenty years. Those kinds of activities engage because they respect and make active use of the ability to think.

The complexity of the sense learners make when they're intellectually engaged in real-world work makes it clear that quality of thought can't be evaluated by commercially produced standardized tests. Do two "good" hypotheses equal four "fair" or seven "poor" hypotheses? What's the difference between "good" and "fair"? Does a kid's inference show insight or startling insight? Is a learner's description of an event beautifully succinct or merely sketchy? Computers can't answer these questions.

There's no getting around the inherent complexity of original thought, and no getting around traditional schooling's failure to stimulate and nurture it.

Today's reformers dream of low-cost schools where technology does the telling, technology does the testing, and vouchers pick up the tab.

"Civilization," said H.G. Wells, "is a race between education and catastrophe." Perpetuating the misguided education policies put in place by politicians at the urging of wealthy but educationally clueless campaign contributors doesn't just invite societal catastrophe, it assures it. ##

* <http://www.marionbrady.com/documents/WWL.pdf>

<http://www.marionbrady.com/CIR.asp>

<http://www.marionbrady.com/AHH.asp>

<http://www.marionbrady.com/WorldHistory.asp>