Road to Hell III:

Onward & Downward

More contrarian comments on education reform
by Marion Brady

Op-ed columns from:

The *Washington Post:*

The Answer Sheet

Education blog by Valerie Strauss

...and other sources

Compiled June 2018

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Contents

Preface v

Blind, severely disabled boy forced to take standardized test 1
The right — and wrong — role for teachers 4
An any-century curriculum 7
A quiz on America's core curriculum 11
The right way to teach history 14

The biggest weakness of the Common Core Standards 17
Beyond tests: How to foster imagination in students 20
We need the right kind of standards, not CCSS 24
'The Procedure' and how it is harming education 26
Why Common Core isn't the answer 29

One way to help solve America's major curriculum problem 33
10 things wrong with what kids learn in school 37
What real learning actually looks like in class 42
What do standardized tests actually test? 47
What the Common Core standards can't do 50

A paradigm shift schools need now — and it's not Common Core, tech or rigor 52
One thing schools should do to boost students' intellectual growth 55
The Important things standardized tests don't measure 59
Why the conventional wisdom on schooling is all wrong 62
What Bill Gates Doesn't Understand About Education 65

This could change everything about school — for kids, teachers and everybody else 67

A big problem with the Common Core that keeps getting ignored..... 72

Education reform: A primer for pundits and politicians 74

One mother's story: How overemphasis on standardized tests caused her 9-year-old to try to hang himself 77

Why school is a "confusing mental mish-mash" for kids 79

The most important thing schools don't do 82

Why even the world's highest-scoring schools need to change..... 84

34 problems with standardized tests 85

Education or catastrophe? HB 7069 tips the balance..... 88

Pols must grasp why teachers oppose testing 90

Here's a great way to get kids to learn. Unfortunately, too many schools don't do it..... 92

Test-Based Accountability is Dumbing Us Down 96

A Question for Betsy DeVos..... 97

12 ideas that help explain what's wrong with most schooling today 98

Index 103

Thematic Index 106

Preface

This is the third in the series of books compiling Marion Brady's Op-Ed commentary. I assembled the first book, *The Road to Hell,* in 2010, and Marion wrote the earliest piece in that volume a quarter of a century ago (October 1993).

All of the educational problems discussed 25 years ago have continued; some are worse than before. The United States has a Secretary of Education who seems dedicated to the destruction of public schools. Charter schools have proliferated, along with repeated scandals of fiscal mismanagement and greed, and frequent poor performance in those schools. On-line "virtual" schools have failed in educating the young time and again, but have lined the pockets of their owners (and the campaign chests of politicians) with taxpayer money. *Onward and Downward* seems an appropriate title for this third "Road to Hell" volume.

It's not all bad news. In some regions (e.g. Long Island, NY) many parents have become aware of the damage inflicted by standardized tests, and have participated in the "op out" movement. Schools and classes in a few places have adopted project-based learning, which can have a major and positive educational impact on learners. And, for what it's worth (not much, in our opinion) international tests suggest that overall, learners in the United States have improved slightly, compared to a decade ago or so. (Improvement in standardized test scores is probably not a good thing, in the long run. Marion explains why.)

One problem continues almost everywhere, even in the best of our schools, and that problem is the main theme of our work:

> "...ignoring reality's holistic, systemically integrated nature and the seamless way our minds make sense of it comes at a huge, even deadly cost. We're poorly equipped to make sense of the big picture, the trends of the era, and the unintended consequences of our actions because ***we literally can't imagine possible, probable, and preferable futures.***
>
> "We can't imagine alternative futures because they're products of complex dynamic, systemic interactions, and a curriculum that compartmentalizes knowledge—as the core curriculum does—blocks the basic relating process that imagining requires." [October 22, 2015: "A big problem with the Common Core that keeps getting ignored," p. 71]

Marion has said to me, several times, "I've said the same things, over and over, and I'm running out of new ways to say them."

He hasn't run out of new ways to say them yet.

Howard Brady (the kid brother), June 2018

Highlights:

The systemic nature of reality, the seamless way the brain perceives it, the organizing process that aids memory, the relating process that creates new knowledge, the conceptual networking that yields fresh insights, the meshing of two seemingly unrelated ideas that underlies creativity—all rely on holistic, systemically integrated and related thought. *And it's not being taught*. [p. 32]

If [important thinkers] are right that adequate sense can't be made of the world by slicing it into little pieces and studying the pieces without regard for how they fit together and interact, it follows that modern education worldwide isn't meeting its major responsibility…

Solving the problem of the traditional curriculum's too-narrow scope would change those issues so much that every one of them would have to be rethought.

That's probably not going to happen, so I'm not optimistic about the future of American education. We're a society that's never been particularly interested in the life of the mind. Our sense of community—"us-ness"—has withered, and with it the ability to solve shared problems. We're not embarrassed by a level of poverty that makes it almost impossible to adequately educate a quarter of the young. Dominated by corporate interests focused on short-term profit, we refuse to acknowledge the near-certainty of a future that will challenge humankind's ability to survive. We expect good work from teachers locked at the bottom of a bureaucracy that gives them no voice in and no control over decisions central to their effectiveness. [pp. 33-4]

The richest "textbook" isn't a textbook; it's the present moment. With few exceptions, every important idea taught in every school subject manifests itself in some concrete, instructionally useful, "hands on" form on school property or within walking distance. It's all there, just a matter of going to where it is and staring at it until familiarity's veil lifts and it becomes strange enough to see. [p. 68]

Lasting curricular change is bottom up and voluntary, propelled by the enthusiasm of kids and teachers. The optimum place and time to introduce systems thinking is at the middle-school level, using teacher teams working with small groups, and offering social science, language arts, and humanities credits. Introduce systems thinking to adolescents, and its merit will eventually lead to adoption at other levels of schooling. [p. 85]

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted March 23, 2013:

Blind, severely disabled boy forced to take standardized test

Remember Rick Roach?[1] He's the Orange County, Florida, school board member I wrote about on The Answer Sheet a while ago. Upset by the fact that thousands of kids in Orange County with excellent academic records were failing Florida's annual high-stakes test and suffering dire consequences, he took a test[2] similar to the Florida Comprehensive Assessment Test (FCAT).

He squeaked by the reading portion with a grade of 62, but failed the math section, this despite the fact that he has two masters degrees, a successful career behind him, and is in his third four-year term on the county school board that has responsibility for overseeing the ninth-largest school system in America and a $2.5 billion budget.

In the months since he took the test, he's talked to thousands—students, parents, reading teachers, principals, members of business and professional organizations, testing experts, consultants, radio, television, and print reporters, and others—not just in Florida but nationwide. His message: Many high-achieving middle and high school kids score poorly on the tests. Except for their test scores, they are making excellent grades in advanced placement, honors, and other accelerated classes. They can demonstrate on the spot that they can read college-age material fluently and explain without difficulty what they've just read. Obviously, there's something seriously wrong—not with the kids but with the tests, the testing procedures, or the scoring methodologies.

Rick called me a few days ago. He had, he said, been contacted by Linda Stewart, a member of the Florida legislature. She was looking into a constituent's school-related complaint, and wondered if Rick would check the matter out for her.

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[1] See http://www.washingtonpost.com/blogs/answer-sheet/post/revealed-school-board-member-who-took-standardized-test/2011/12/06/gIQAbIcxZO_blog.html

[2] http://www.washingtonpost.com/blogs/answer-sheet/post/when-an-adult-took-standardized-tests-forced-on-kids/2011/12/05/gIQApTDuUO_blog.html

The constituent is an administrator in a special school that serves the educational needs of kids who for one reason or another can't be served by the county's regular public schools. The school, however, is under school board jurisdiction and therefore subject to the same rules and regulations as all others.

One of those regulations is that every kid has to take the Florida Comprehensive Assessment Test in order for the school to receive state support. That creates a problem, the school administrator tells Stewart. The problem: Michael. He has a disability.

Contacted, state officials cite state statutes. Michael has no options. He has to take the test.

Michael is nine years old. Born prematurely, he weighed four pounds. He has a brain stem but, according to doctors, most of his brain is missing.

No problem, says the state. An alternative version will be sent—pictures that Michael can describe.

Unfortunately, Michael is blind.

No problem, says the State. There's a Braille version.

Michael doesn't know Braille, and is unlikely to ever be able to learn it.

Amanda, Michael's teacher, is frustrated. She really cares about the kids she teaches, and resists deliberately setting them up to fail. She also knows that Florida's legislature, ignoring the research, has jumped on the merit pay bandwagon, which requires that teachers evaluated in large part by the standardized test scores of their students. So Michael's test score—a zero—and the scores of other disabled kids for whom she's responsible, can set her up for a poor review or even get her fired.

This isn't an isolated case.

This is the inevitable result of reforms being led by policymakers–pressured by leaders of business and industry—to do exactly the wrong thing. They try to micromanage classrooms, claiming that teacher incompetence and irresponsibility make intervention necessary. Teachers need to be told exactly what to teach, the policymakers say, and their performance must be constantly monitored to make sure they're following orders.

Amanda, Orange County's teacher for the hospitalized and homebound, is, by training, experience, temperament, and past performance, in a far better position than anybody else to make decisions about her students' capabilities. But so effective has been the propaganda campaign to convince the general public that teachers can't be trusted, and so serious are the consequences for not adhering to policies and procedures imposed from above, every situation like Michael's triggers a lengthy procedure of committee meetings, second and third opinions, and letter exchanges. Then, if the state

Department of Education finally gives in and grants a waiver, it's ordinarily for only one year.

The mother of another of Amanda's students showed Rick the extensive paper trail she'd traveled to exempt her son from testing. In one of the letters to state education officials, she wrote:

" …Through intensive physical, occupational, and speech therapy, along with meticulous efforts of his Hospital/Homebound teachers for the past seven years, Ethan has achieved very limited and rudimentary communication skills. He has a very slight thumb lift with his left hand to indicate 'yes' or 'no.'

"Ethan has been required to take the Florida Alternate Assessment for the past two years, and in addition to the questions being entirely inappropriate for his level of cognition (he cannot comprehend questions about math, staplers, clocks, shoes, or even food) there is no way to accurately assess his understanding of the material being presented… Additionally, the testing procedure is extremely physically taxing for him, requiring him to sit in his wheelchair for long periods of time and focus on black and white pictures which are difficult for him to perceive at best… After the testing sessions, he is physically exhausted and often develops pressure sores from sitting in his wheelchair. He also has developed respiratory infections from fluid pooling in his lungs from the long testing sessions."

Ethan's mother even made a trip to Tallahassee to make her case. She managed to get a waiver, but it's only good for this year. The state is relentless in its determination to put Michael and Ethan on course for college and career.

Rick told me he'd hoped that because a state representative had asked for his involvement, there was a chance the law would be rewritten and inject some common sense into testing procedures.

Fat chance of that, given the money and power behind the drive to use standardized tests as clubs to centralize and privatize America's public schools. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted April 15, 2013:

The right — and wrong — role for teachers

Bill Gates spent $45 million trying to find out what makes a school teacher effective. I've studied his Measures of Effective Teaching (MET) project (http://www.metproject.org/), and think it ignores a matter of fundamental importance.

Consider: What makes an effective lawyer, carpenter, baseball player, surgeon?

The answer is that it depends—depends on what they're being asked to do. An effective divorce lawyer isn't necessarily an effective criminal defense lawyer. A good framing carpenter isn't necessarily a good finish carpenter. A good baseball catcher isn't necessarily a good third baseman. A good heart surgeon isn't necessarily a good hip-replacement surgeon.

Put lawyers, carpenters, baseball players, and surgeons in wrong roles, test them, and a likely conclusion will be that they're not particularly effective. So it is with teachers. Put them in wrong roles, and they probably won't be particularly effective.

Gates' faith in test scores as indicators of effectiveness makes it clear that he buys the conventional wisdom that the teacher's role is to "deliver information." But what if the conventional wisdom is wrong?

Here's an American history teacher playing the "delivering information" role:

"What were the Puritans like? Many of the things they did—and didn't do—grew out of their religion. For example, they thought that all people were basically evil, and that the only way to keep this evil under control was to follow God's laws given in the Bible. Anyone who didn't follow those laws would spend eternity in Hell."

Later—a few minutes, hours, days, or weeks—it's the learners' turn to play their role. They take a test to show how much of the delivered information they remember. If it's a lot, the teacher is labeled "effective." If most of it has been forgotten, he or she is "ineffective."

Let's call this "Teacher Role X."

Now, suppose the teacher doesn't play that role—delivers no information at all about Puritan beliefs and values or anything else—instead says, "I'm handing you copies of several pages from *The New England Primer*, the little book the Puritans used to teach the alphabet. Get with your team, and for the next couple of days try to think like a little Puritan kid studying the pages. What do you think you'd grow up believing or feeling that's like or not like your present beliefs and values?"

That's it. The teacher may be an expert on Puritan worldview, but offers no opinion, just wanders around the room listening to kids argue their assumptions, defend their hypotheses, elaborate their theories and generalizations, getting ready to later make their case to the other teams.

Let's call this "Teacher Role Y."

Which teacher —the one delivering information (X), or the one requiring kids to construct information for themselves (Y)—is more effective?

Here's Bill Gates, chief architect of the present education reform movement, giving his answer to that question: "*If you look at something like class sizes going from 22 to 27, and paying that teacher a third of the savings, and you make sure it's the effective teachers you're retaining, by any measure, you're raising the quality of education.*"

Clearly, when Gates says it's just as easy to deliver information to 27 kids as it is to deliver it to 22, he's taking the teacher-as-deliverer-of-information role for granted. Just by talking a little louder, Role X teachers can deliver information to the additional five students. Give them bullhorns, and they can deliver to 127. Give them television transmitters or the Internet, and class size is irrelevant. Salman Khan's online math tutorials reach millions.

For Role Y teachers, however, every additional learner after the first makes the job harder. They're trying to gauge the nature and quality of learners' thought processes; assess depth of understanding; set and maintain a proper pace; decide whether to move on, go back, or go around a learning difficulty; determine learner attitudes toward and appreciation of the subject; trace the evolution of communication, collaboration, and other skills; and note honesty, tenacity, and other character traits that a good education is expected to develop.

Role X teachers may care about those matters, but if they're standing behind a podium in a lecture auditorium, talking to a television camera, or teaching a class via the internet, caring is the most they can do. Real learning is a relationship-based experience. The effectiveness of Role X teachers won't change significantly unless somebody invents technology that's capable of, say, delivering a kiss remotely that has the same effect as the real thing.

Notwithstanding the assumption that Teach for America recruits or others who know a subject well can teach it, teaching—real teaching—is exceedingly complex, difficult work. That Role Y history teacher in my example had to decide that understanding a group's worldview is important enough to warrant devoting two or three days to it, and be able to explain, if challenged, why the study of worldview is relevant and important. He or she then had to find a vehicle (in this case, *The New England Primer*) that was intellectually manageable by adolescents of varying ability levels, dealt with the required content, required use of a full range of thought processes, and engaged kids sufficiently to be intrinsically satisfying.

Then the real work began—"reading" kids' minds—analyzing their dialogue, interpreting facial expressions and body language, and sensing other cues so subtle they're often below ordinary levels of awareness—cues that may relate to the learner's mood, ethnicity, prior experience, peer and family relationships, social class, and so on—the whole of the challenge further complicated by the fact that no two kids in any class will be alike.

It takes years for those skills to develop and become "second nature."

Teacher Roles X and Y are played not just in the teaching of history but in every subject, and the roles are poles apart. Indeed, so distinctive are the two approaches they create two entirely different classroom cultures, each with enough consequences—expected and unexpected—to warrant at least a half-dozen chapters in a book.

The performance of students taught by Role X teachers can be evaluated by machine-scored standardized tests. Machines can't come even close to evaluating the performance complexities of Role Y teachers. That's why the testing fad and everything that relates to it—the Common Core State Standards, student ranking, school grades, timed standardized tests, merit pay, pre-set test failure rates, and so on—drive Role Y teachers up a wall.

Failure to distinguish between teacher-centered and student-centered approaches to educating makes the conclusions of Gates' Measures of Effective Teaching project of limited usefulness at best, misleading at worst. That failure also generates problems within the ranks of teachers, creating a chasm of misunderstanding that more than a century of professional dialogue has thus far been unable to bridge.

Decades of firsthand experience with both Roles X and Y in my own teaching and that of teachers for whom I've been responsible leave me without the slightest doubt that, notwithstanding its continued use, much Role X instruction amounts to little more than ritual. Unfortunately, Role X is what No Child Left Behind, Race to the Top, and other policies being forced on teachers by corporate interests and politicians are reinforcing.

Given the wealth and power behind those misguided efforts, the refusal of their advocates to listen to experienced teachers or respect research, and the assumption by the likes of Rupert Murdoch that current reforms will build a money machine for investors,[3] it seems likely that present X-based education "reform" efforts will be the only game in town.

I can think of only one sure-fire way to take control of public education away from Washington and state capitols, return it to educators and local community control, and open the door to broad dialogue and genuine reform. The young hold a wrench which, dropped into the standardizing gears, will bring them to a near-instant stop. If even a relatively small minority agree (as some already have) to either refuse to take any test not created or approved by their teachers, or else take the tests but "Christmas-tree" the ovals on their answer sheets, the data the tests produce will be useless.

Conscience-driven students who do that will be owed the gratitude of a nation. They'll have put the brakes on a secretive, destructive reform effort based on a simplistic, teacher-centered, learner-neglecting conception of educating.

I can anticipate some of the conventional-wisdom reaction to what I'm advocating—that it's irresponsible, that kids are too immature to evaluate the quality of their schooling, that I'm undermining the authority structure that holds the institution together.

Before hanging negative labels on me, ask yourself: Is a system of education that limits intellectual performance to the thought processes that machines can evaluate, adequately equipping the young to cope with the future they're inheriting? **Ω**

Note: This article was republished by *Truthout* and *Alternet*.

Note: A somewhat "calmer" version of the following piece, titled "A big unexplored idea in school reform," is at: Washington Post, "The Answer Sheet" blog by Valerie Strauss Posted June 11, 2013:

An any-century curriculum

The big new thing in education reform is the *Common Core State Standards*—lists of what kids are expected to know and be able to do in math, science, language arts, and social studies.

Not everyone is a fan. Gene Glass**,** former president of the American Educational Research Association, calls the *Standards* "idiots' solution to a misunderstood problem.

[3] 2018 note: That assumption cost Murdoch a bundle.

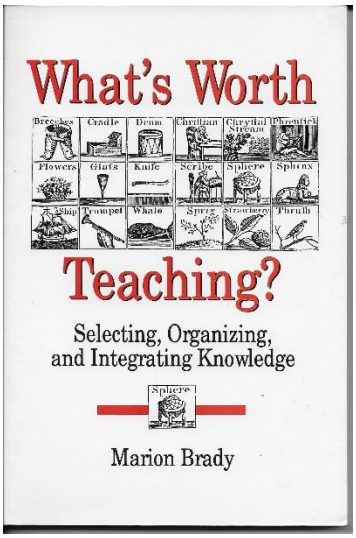
That problem: an archaic curriculum that will prepare no child for life in 2040 and beyond."

I'm with Dr. Glass. I oppose the *Standards* because they reinforce rather than rethink a curriculum that can't do the job.

Evidence of the traditional general education curriculum's inadequacy is overwhelming. As every adult surely knows from firsthand experience, it dumps so much raw, disorganized information on learners that most of it is quickly forgotten. It neglects important new fields of knowledge. It has no agreed-upon aim. It tries to dumb kids down to performance levels simple enough to be tested by machines. It chops up information, ignoring the seamless way the brain learns. It doesn't engage kids' emotions. It's time-consuming and unnecessarily expensive.

That barely begins a list of serious problems with the 19th Century curriculum being locked in permanent place by the *Standards*. Worse, the high-handed, sneaky, fear-based strategy being used to force those *Standards* on America's teachers and kids make it all but impossible to explore alternative curricula. Resisting the Common Core Standards juggernaut can end one's career in education.

Full disclosure: I have a dog in this fight. I've written books, chapters for others' books, dozens of journal articles, myriad op-eds, and years of nationally distributed newspaper columns, all calling attention to a simple, no-cost way to salvage the traditional curriculum. But up against bureaucracy and institutional inertia, up against lobbyists for test manufacturers and education publishers, up against the millions being spent by the Gates, Walton, and Broad Foundations to reinforce the educational status quo, up against the naiveté and hubris of the U.S. Secretary of Education and policymakers for both political parties, up against wishy-washy teacher unions, my dog can't get out of the kennel. School administrators are so paralyzed by fear I can't even get pilot programs in place to test the idea about which I've written hundreds of thousands of words.



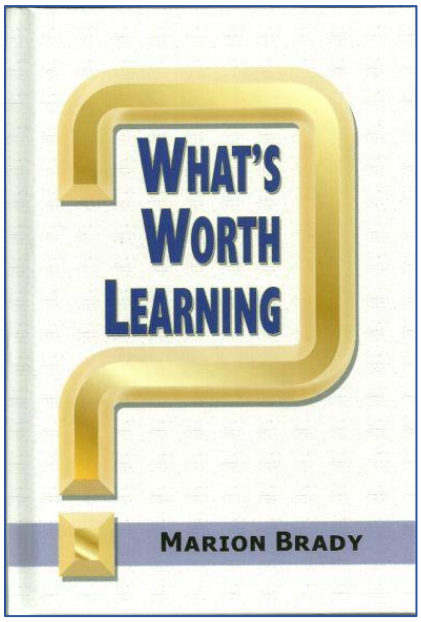
In a review of my first book [*What's Worth Teaching?*] on the subject (State University of New York Press, 1989), Dr. Philip L. Smith, editor of SUNY Press's *Philosophy of Education* series, wrote:

[This is] a well thought out, beautifully presented defense of humanistic general education… I see the audience going well beyond professors of education or students of curriculum. I think it should be read by primary and secondary school teachers, by administrators, school-board members, and the general public. Many of these people want more from their schools than specialized academic preparation or narrow

vocational training. Brady gives them something more. She [sic][4] provides a serious, concrete proposal for civic education and the development of the human spirit. To my knowledge there is nothing now available in print that is even of mediocre quality to compete with it… Serious-minded educators who begin to read this book are very likely to finish it, and to be influenced by it for the better. Those who are not serious-minded—if there is any hope for them at all—might start to be serious-minded if they read it.

Who decides what's taught? Generally speaking, nobody. What's taught is taught because it's what has long been taught. Period.

That's the main reason meaningful change in the curriculum is all but impossible. Reformers, either not understanding that sense can't be made of a dynamic world using a static curriculum, or else understanding but deliberately pursuing a dark objective, cripple young minds with ill-conceived policies.



I'm angry enough about the beating America's teachers and kids are taking from those policies, worried enough about America's future, and frustrated enough with the educational naiveté and hubris of those now controlling American education to do something I wouldn't have done when I was younger and poorer. Hoping to trigger a long-overdue dialogue about what the young are being taught (and not taught), and why, I've bought back from my publisher the rights to my most recent book, *What's Worth Learning?,* and put it online as an e-book, free for the downloading.

It's a quick read:

Part One: What's wrong with the "core" curriculum—12 pages.
Part Two: A "fix"—45 pages.
Part Three: Meshing the fix and the core—15 pages.
Part Four: Notes on teaching—19 pages.

Recognizing the enormous difficulty of translating a genuinely new idea into classroom instruction, an appendix to *What's Worth Learning?* titled *Introduction to Systems,*[5] offers an illustrative course of study suitable for adolescents and older students.

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[4]More than once Marion Brady has been the victim of chauvinism because of his name. It's been apparent that some male academics (who would almost certainly insist they weren't biased) have dismissed his written views because they've assumed he is a woman. (HLB)

[5] Formerly *Connections: Investigating Reality,* revised and title changed 2017.

I'm convinced that classroom teachers—not test manufacturers, not publishers of textbooks and other educational materials, not leaders of business and industry, not the U.S. Department of Education, not federal, state, or municipal politicians—are best positioned to develop and maintain the general education curriculum. No one else is better able to adapt it to learner abilities, take account of local conditions and resources, capitalize on individual differences, and evaluate learner performance.

But teachers need tools they don't now have—a clear, defensible aim, a shared vocabulary, a sound philosophy, a comprehensive conceptual framework, a working teaching model, and a way to communicate with each other about the work they share. For this reason, in the spirit of "open source," I've also put the course of study online.

Links to both the book and course of study are below.

But first: For about the last twenty-five years, the main obstacles to acceptance of genuinely fresh thinking in education have been erected by amateurs—business leaders, lawyers, economists, celebrities, state and federal legislators, mayors and other politicians—who know little about educating, don't know how little they know, and refuse to talk to those who've spent their working lives eye-to-eye with students, all the while thinking hard about what they were doing.

But professional educators erect their own obstacles to fresh thinking. From failed efforts to get my peers to give serious thought to a simple but different idea, I've identified at least some of the reasons for their resistance.

First, my idea is dismissed because it's threatening. It calls into question the undergirding premise that shapes school organization, teacher training, textbook design, testing, and much else. For many, maybe most educators, the idea even threatens their identity. That's not much of an incentive to read or think about the idea.

Second, the idea is dismissed because it sounds too simple to take seriously. A few sentences before that long quote above from Philip Smith, he wrote, "Let me begin by saying that I liked this manuscript very much. Before I studied it I did not expect that I would. It appeared to be rather pedestrian, even simple-minded. Nothing could be further from the truth."

"Before he studied it," Smith dismissed the idea. If he hadn't been asked to read the book manuscript, he wouldn't have done so. It's sad but true that most teachers don't read much, and those who do aren't likely to want to read about an idea that initially strikes them as too simple to take seriously.

Third, the idea doesn't "compute" for most people, especially educators. Accepting it requires imagination and a genuine paradigm shift—replacing a taken-for-granted idea about the nature of knowledge with an idea to which no thought has been given. Those who've studied paradigm shifts know that mere words don't trigger them.

Fourth, the idea is ignored by those whose assistance it most needs—creative, original thinkers. Always unhappy with the status quo, they devise alternatives. But immersed in their creations, they often suffer from what's sometimes called the NIH (Not Invented Here) Syndrome. They've little or no interest in someone else's idea.

Here, simply stated, is the idea I've been pushing for nearly a half-century, the idea that suffers from that worst of all possible fates: It's neither accepted nor rejected. It's ignored:

The brain copes poorly with disorganized information, and school subjects are poor organizers.

The brain uses a better system, helping kids lift their natural organizer into consciousness and make intentional use of it makes them a whole lot smarter.

Download the book. (No strings, no cost, no signup, no ads): What's Worth Learning?

Download the illustrative course of study. (Same deal): Introduction to Systems.

Ω

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted August 31, 2013:

A quiz on America's core curriculum

It should be self-evident that a democracy can't function without an educated citizenry. It follows, then, that when leaders of business and industry buy a particular theory about educating and sell it to the politicians who write education policy, responsible citizens will try to understand that theory well enough to make informed judgments about it.

To that end, I've put together a little quiz.

But first, a bit of background. The key word that drives the present corporate-influenced education reform movement is "rigor." Its supporters assume that teachers and kids have been getting off easy for decades, so a tough "no excuses" regimen is long overdue.

For starters: Make teaching a precarious occupation. Tie pay to test scores. Put teachers on annual contracts to make firing them easier. Stop respecting teacher judgment. Assign grades to schools and close the troubled ones or, preferably, hand them over to charter chains. Abolish recess. Lengthen school days and years. Cut out art,

music, physical education, free reading, and other frills and use the time to hammer academics.

Most importantly, *tighten the curriculum screws*. Focus with intensity on the "core" subjects—math, science, language arts, and social studies. Write standards that tell teachers what to teach, monitor them continuously to make sure they don't go off script, and give their students high-stakes tests to keep them on their toes. Give the screw-tightening strategy an impressive name that appeals to the conventional wisdom.

Do all this quietly, then roll it out with a massive public relations campaign. Give money to prestigious organizations and media outlets in exchange for support and good press. Say that educators wrote the standards and that, unlike all previous top-down education reform efforts, this one will work because it's not optional. Get high-profile public figures to write laudatory op-eds arguing that the Common Core State Standards and non-stop do-or-die testing will turn America's coddled kids into world-beating critical thinkers and innovators. Don't respond to opponents' criticisms of the standards, just accuse them of being against educational progress.

I've a different theory about the performance plateau American education has occupied for the last 150 or so years. Notwithstanding the fact that just about everybody in the world, educators included, take the adequacy of the familiar core curriculum for granted, I'm convinced this 19th Century teaching tool is deeply flawed. I have a list of 20 or so of its problems that I believe create a performance ceiling above which it's all but impossible to go.

Below are 10 of those characteristics in the form of statements. Since almost every reader's education will have been shaped by the core curriculum, memory should provide sufficient perspective to allow an opinion to be expressed. Spend a couple of minutes with the quiz and decide for yourself if the familiar core curriculum is so problem-free it's appropriate to standardize it and lock it in permanent place with the Common Core State Standards and high-stakes testing .

Quiz:

Each of the following ten items is a statement about the familiar, traditional core curriculum. If you consider the statement completely true, place a "10" in the space provided. If you consider the statement completely false, enter a "0." Use numbers "1" through "9" to indicate differing levels of confidence (low to high) in the core's adequacy in regard to that particular quiz item.

The core curriculum:

_____ Has a clear, precise, overarching aim understood and agreed-upon by all taxpayers, parents, teachers, and learners.

_____ Routinely requires learners to use complex thought—to recall, yes, but to also infer, hypothesize, relate, generalize, value, and so on.

_____ Is perceived by learners as unfailingly relevant to their "here and now" situations, conditions, interests, and needs, and therefore worth learning and remembering.

_____ Adequately reflects the myriad ways humans learn (via art, music, physical movement, free play, peer interaction, advertising, mass media, parental example, and so on).

_____ Has built-in mechanisms forcing it to adapt to social change and local, regional, and other differences and needs.

_____ Balances the passive development of reading and other symbol manipulation skills with active, hands-on, firsthand interaction with the real world.

_____ Puts school subjects in proper perspective—not as content to be mastered, but as means to the end of improved sense-making and pursuit of "richness in life and living" goals.

_____ Is realistic in its assumptions about the amount of information the average learner can thoroughly understand and absorb in the instructional time provided.

_____ Is implemented in ways that reflect research on matters such as retention in grade, class size, the value of teamwork, learners' need for a sense of autonomy, and so on.

_____ Consistently stimulates learner initiative, imagination, curiosity, creativity, and motivation.

_____ Add your scores. (A number less than 100 indicates unsolved problems.)

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It takes no reading between the lines to see that I'm far from being an apologist for the educational status quo. I'm not a critic of standards as tools for reform, but insist that proper ones don't attach to school subjects but to the qualities of mind, emotion, and character it's hoped the study of school subjects promotes. Imagine, for example, the consequences of a policy that says the main aim of schooling is to send the young on their way with a permanent love of learning.

Not going to happen. As written, the Common Core State Standards will cause at least some teachers to think freshly about what they're doing, and that's a good thing. It's also true that practices that emerge from adopting the Standards may address some of the core's problems.

But benefits must be weighed against costs. If your score on the quiz was anything less than 100, you're noting a problem or problems that should surely be addressed *before* making the standards mandatory. If, for example, all education

stakeholders don't share a clear idea about the purpose of schooling (Item 1), or if the kinds of thought processes in which learners engage isn't important (Item 2), and so on, no combination of market forces, no regimen of rigor, no gradual "raising of the bar," no lengthening of the school day or year, and no besting of Finland or Singapore test scores will equip the young to cope with what lies ahead. If I'm right about the inadequacies of the core curriculum, tightening its screws with the Common Core will make it worse.

Assumptions, unexamined, stop fresh thinking dead in its tracks. Assume that today's school subjects are the human brain's best shot at organizing and analyzing information, freeze that assumption in place with the Common Core State Standards, and the door to meaningful education reform in America will slam shut. If it ever opens, it will probably be in some other country, one that's already been down the standards and testing road and discovered it went nowhere. Ω

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted September 25, 2013:

The right way to teach history

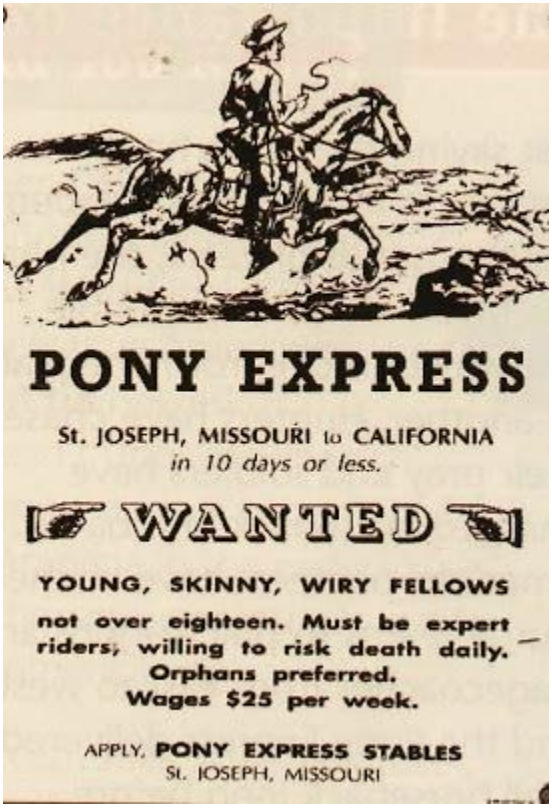
Mr. Martinez, middle school American history teacher, slips his roll book into a desk drawer and looks up at his class.

The students eye him quietly, for they've learned that he frequently does or says something surprising. If they aren't attentive, they might miss it.

The attentiveness isn't lost on Martinez. After a well-timed pause, he touches a key on his computer, and projected on the screen in the front of the room is a huge image of a yellowed, authentic poster announcing job openings for Pony Express riders.

"WANTED," the poster says, "YOUNG, SKINNY, WIRY FELLOWS not over eighteen. Must be expert riders, willing to risk death daily. Orphans preferred. Wages $25 per week."

Martinez watches his students' eyes sweep down the poster. Then, pausing just a moment, he asks, "Any takers?"



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There are good reasons for studying American history. Martinez' style suggests he favors the benefits to be had from what the publishers of history textbooks sometimes advertise as "making the past come alive" — history as literature, history that engages the emotions, history in the form of an exciting, perhaps inspiring story.

That use of history fills an important need. In order for a society to function, its members must feel connected — have a sense of "us-ness." Without it, individual interests overwhelm collective interests. Taxes are resisted. Roads, bridges, parks, schools, libraries, and so on, don't get built, or, if built, aren't maintained. Without that sense of relatedness, social institutions that provide protection, insure justice, maintain the environment, and so on, aren't created, or, if created, aren't sufficiently supported.

It seems fair to say that — except when America is under attack — our feelings of "us-ness," of "one nation, indivisible," aren't particularly strong. Congressional actions, for example, frequently illustrate a level of national divisiveness sufficient to paralyze governing, or even cooperate sufficiently to explore the benefits of various health insurance programs.

Stories of a shared past create and reinforce an essential sense of community and strengthen supportive values and beliefs. Remembered heroes tell the young what traits of character are admired. Remembered difficulties, hardships, and crises tell citizens about potential problems and dangers that can't be adequately dealt with except by collective action.

Sadly, even before the current education "reforms" shoved the study of history aside, the subject seemed to maintain its place in the curriculum more from inertia than a sense of its importance. Student surveys almost always put it at the top of the list of boring, irrelevant subjects, and most students would have a hard time putting together a convincing argument in its defense. History texts — in order to get past textbook selection committees — have to be written in a bloodless, impersonal style or are considered too subjective to be acceptable. Few parents know much history, display an interest in it, or communicate to their kids a sense of its importance. Ideologues gut textbooks by demanding that they be free of criticism of American policies and actions.

If contributing to societal survival is a legitimate aim of education, what present education policy is doing to the study of history is unacceptable. The main generator of really hard-to-solve social problems is social change. The past offers no ready-made formulas or strategies for solving the problems that change creates, but it's the only school subject that deals with societies holistically, the only school subject that subsumes all other school subjects, the only school subject that offers a perspective broad enough to make adequate sense of who we are as a nation, and the roles we play on the world stage.

If study of America's past is to get the attention it deserves, treating it as a story to be told is probably best left to documentaries and other products of filmmakers and television producers. What history teachers can do that media specialists can't do — or can't do well— is challenge kids to a sustained effort to use their brains for something other than trying to remember what they think is likely to be on a test. Learners need to identify and explore patterns and regularities in our collective behavior, need to question unexamined assumptions about who we are, need to trace the trends of the era, and so on. Stories can move us, but when we're trying to make more sense of what's happening, why, and what might happen next, a more analytical, scientific approach to study of the past is necessary.

Consider: A look at almost any newspaper's front page is likely to provide evidence of the need for a better understanding of the process of polarization. Why do small differences that should lead to productive dialogue between friends, between husbands and wives, between neighbors, between management and labor, between political parties, between nations and among groups of nations — why do small differences so frequently spiral so far out of control that productive dialogue is impossible?

America's past offers ample resources for studying the process of polarization.

Consider: Mainstream media often tell everyone in the country about the kidnapping or murder of a photogenic female, provide day-by-day coverage of a celebrity's trial for some alleged minor offense, and trace in detail the sex life of a politician belonging to the political party not favored by the news outlet. Meanwhile, invisible under our feet and largely ignored, the water table essential to our way of life drops inch by precious inch to fatten the bottom line of a bottled-water producer or a golf course owner.

Only by getting our priorities in order and studying change over time — as history does — do matters such as these get the attention they deserve.

Consider: American history has important things to say about the consequences of various patterns of wealth distribution, about unintended negative consequences of well-meant legislation, about the systemic effects of changes in the percentage of the population in various age groups, about problems triggered by technological change, about the relationship between economic diversity and economic stability, about reactions to thwarted individual autonomy, about decision-making concentrated in too-few hands, about the limitations of market forces, about the push and pull of un-examined cultural assumptions.

The past contains no easy answers, no ready-made conclusions, no precise parallels to today's situations, but it's ridiculous to suppose that America can function as it ought if its citizens are ignorant of the dynamics of change and unaware of probable future problems created by forgotten missteps.

To be valued as it ought to be valued, American history instruction needs to move away from "the story" toward the study of important changes that have affected — and will continue to affect — the way of life we seek. That's a significant shift. However, this won't solve the other problem with history as it's usually taught: its failure to engage learners in any effective way.

The core of the problem is *the textbook* — a huge, backpack-stressing compendium of pre-digested, secondhand information that students are expected to remember, at least long enough to pass a test. History textbooks are loaded with conclusions, leaving learners little to do but try to store them in memory, a task at odds with kids' basic natures. Too many history classes resemble the famous scene in the movie "Ferris Bueller's Day Off" with Ben Stein lecturing on economic history to zoned-out teens.

Instead of making the past come alive, kids need to come alive. Moving to active learning using un-interpreted primary sources, and requiring real investigation and deep analytical thought is a key to developing that engagement. Focusing on historical principles that kids can use "right here, right now," is another.

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Note: For examples of the kind of instructional materials for history that I think would do the job that needs doing, I invite readers to take a look at: http://www.marionbrady.com/AHH.asp [*Investigating American History*].

In the spirit of open source, the materials are free, a feature your local school system administrators might find both unusual and attractive. Ω

Note: Since this Op-Ed piece was written, we've added a world history course, [*Investigating World History*] also available free (as with all our materials) to educators for use with their own learners. This course also features active and project-based learning. There's very little narrative—learners analyze primary source data to identify systemic relationships and principles of historical change.

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted November 7, 2013:

The biggest weakness of the Common Core Standards

A particular interest of mine has long been what kids are taught in the early years of adolescence. No surprise, then, that when the Common Core Standards went public, I clicked on the Standards for Literacy in History/Social Studies, Science, and Technical

Subjects, (http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf) and scrolled down to pages 61 and 62, where you can find lists of standards for different grades.

Let's look at the standards for 9th and 10th graders. There are two lists for the various subjects, but they are nearly identical. Reading them, I was struck by something I'll boldface for the sake of emphasis:

Standard 1: "Cite specific **textual** evidence…"
Standard 2: "Determine the central ideas…of a **text**…"
Standard 3: "Follow…a procedure…defined in the **text**."
Standard 4: "Determine the meaning…relevant to **texts**…"
Standard 5: "Analyze the relationships…in a **text**."
Standard 6: "Analyze the author's purpose in a **tex**t…"
Standard 7: "Translate…words in a **text**…"
Standard 8: "Access…evidence…in a **text**…"
Standard 9: "Compare findings…presented in a **text**…"
Standard 10: "…read and comprehend…**text**…"

To their credit, the standards require kids to "cite, compare, translate, determine, define, analyze"—in short—do something that traditional classroom instruction has always neglected. They require them to think for themselves, not just try to remember something read in a book or heard in a lecture.

But that benefit comes at great cost. It perpetuates and reinforces what's always been a major—no, make that THE major weakness of modern schooling—its preoccupation with playing with letters and numbers to the neglect of all other ways of learning.

That view was underlined for me two or three months ago when I spent several hours in the Morgan Motor Company factory in Malvern, England, watching and talking to workers turning out built-to-order cars. They'd all served four-year apprenticeships on the factory floor. It was underlined for me again by an article published in the October 8, 2013, *Guardian* titled "Rewild the Child." (http://www.monbiot.com/2013/10/07/rewild-the-child/).

Common sense says we educate to help learners *make better sense of experience—themselves, others, the world*. Those Common Core Standards above say something very different, that we educate to help learners make more sense of text—words on a page. There's no acknowledgement of the myriad other ways humans learn, no apparent recognition of the inadequacies of text in preparing the young for an unknown future, no apparent appreciation of the superior power of firsthand knowledge compared to secondhand knowledge, no provision for adopting ways of learning yet to be discovered.

Yes, it's important for learners to know what others have to say, but facing a complex and unknown future, it's far more important that the young learn how to figure things out for *themselves,* more important that they know how to create *new* knowledge as it's needed, more important that they be able to imagine the as-yet-unimagined.

The promotional hype for the Common Core Standards rightly criticizes traditional schooling's failure to teach critical thinking and other higher-order thought processes. But those who think the Common Core Standards turn a 19th Century curriculum into a teaching tool equal to the challenges of the 21st Century haven't thought the matter through.

I find it hard to believe that before putting their stamps of approval on the Common Core Standards, someone in the U.S. Department of Education, the National Governors Association, the Council of Chief State School Officers, the National Education Association, the American Federation of Teachers, or the many other organizations now singing the praises of the standards didn't call attention to their narrow, "bookish" slant.

Surely at least some people in those organizations know (or certainly should know) about "hands on" project learning, or place-based studies, or of the curriculum-changing potential of the concept of General Systems Theory. If they weren't aware of recent developments in curriculum design, they should at least have had second thoughts about the intellectual costs of squeezing the arts and play out of the school day. If millions of kids have to sit in their seats with their noses held to the Common Core text grindstone, "rigor" ought to mean a lot more than merely making sense of secondhand "informational text."

Hmmm. Just now, re-reading the 10 standards specifying the various mental processes kids are to bring to the reading of text, I see no mention of the thought process of hypothesizing. The ability to generate hypotheses is essential to creative, imaginative, divergent thought. Was its omission just carelessness? Or is it possible that policymakers aren't interested in that kind of thinking? There's a lot of talk right now about the importance of STEM education—science, technology, engineering, mathematics. But given the third-world-direction in which America's economy is headed, a great many kids will probably end up not in STEM occupations but in low-paying service jobs. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted November 23, 2013:

Beyond tests: How to foster imagination in students

Teachers teach to tests. Up until a few years ago, that wasn't a problem because most teachers wrote their own. When business leaders convinced Congress that teachers couldn't be trusted, testing was handed over to commercial manufacturers.

Those paying attention know that the high-stakes testing craze has pushed hundreds of thousands of kids out of school, trivialized learning, radically limited teacher ability to adapt to learner differences, and ended many physical education, art, and music programs. It unfairly advantages those who can afford test prep, makes Congress America's school board, creates unreasonable pressures to cheat, closes neighborhood schools, taints the teaching profession, and blocks all innovations except those the results of which can be measured by machines—just to begin a much longer list.

In books, journal articles, op-eds, columns and blog posts, I've explored many of these and other problems created by the new testing policies, but I don't remember calling attention to a problem created by today's emphasis on "minimum competence." It deserves serious thought.

Stripped to essentials, here's how minimum competency testing works: Authorities make lists of what they think kids should know. The lists are given to teachers, along with orders to teach what's on them. Standardized tests check to see if orders are being followed. Somebody (not educators) sets arbitrary pass-fail cut scores, and kids who score above the cut are considered "minimally competent."

Sound reasonable? Most people seem to think so. But schools concentrating on minimum competence can't turn out kids smart enough to deal with the problems they're going to inherit. Schooling's proper emphasis is on maximum performance, not minimum competence, but most educators' minds are on something else—the penalties for failure to lift kids above minimum competence levels. Those penalties are so harsh that devising strategies to avoid them has become educator Job One.

Few school administrators will admit it, but one avoidance strategy has them assigning their best people to the kids clustered around the pass-fail cutline, trying to nudge them up into minimum competence territory. This, of course, can work, but it comes at the expense of all the other kids in the school—those considered hopelessly below or safely above that pass-fail line.

Maximum performance

Maximum academic performance lies in a direction where few seem to be looking, and fewer still are offering instructional materials designed to get there. To avoid being dismissed as too far out in education la-la land to take seriously, I'll let Albert Einstein point the direction, then I'll suggest a way to get there.

"Imagination," said Einstein, "is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand."

Consider: We can't do anything about the past. It is what it is, and there's no changing it. The most we can do is try (certainly harder than we now are) to make useful sense of it. But the future is a different matter. Its arrival is inevitable, we have at least some control over it, the importance of exercising that control wisely is self-evident (except perhaps in Congress), and if schools don't teach how to do it, it's not going to get done—at least not on a scale sufficient to save our skins.

To that end, there's no getting around the central role played by imagination. If probable, possible, and preferable futures can't be imagined, the skills necessary for coping with those alternatives aren't going to be developed. And if those skills aren't developed, America will continue its downward educational trajectory.

Below are four imagination-stimulating learning tasks written for middle or high school project teams. All four meet criteria that many years of working with adolescents tell me are important. (a) The tasks are intellectually challenging but doable. (b) They're concrete rather than abstract. (c) They're real-world rather than theoretical. (d) They make use of all school subjects. (e) They require thinking-out-loud dialogue. (f) Most kids find them interesting enough to arouse emotion. (**G**) They require learners to switch from *mentally storing existing knowledge, to creating new knowledge*.

I made that "g" big to call particular attention to the sentence that follows it. If traditional education had been more defensible, if it had always required kids to construct new knowledge, the last quarter-century of corporately driven educational turmoil would never have happened. It would have been obvious to those now running the education show that they didn't know enough about educating to take control of policy.

Assignments:

(1) *Much of what humans accomplish is done by organizations. Armies protect from enemies, legislatures write laws, manufacturers produce goods, contractors build roads, religious congregations promote spiritual values, hospital staffs care for the sick, and so on.*

Given the importance of organizations, understanding them is essential. You should know why and how they form, how they differ, why some are

efficient and others not, how decisions are made, why all of them tend to become obsolescent, etc.

Your school is a convenient organization to examine. Work with your team to design an outline or plan to guide study of "My School"—everything you can think of that relates to it in any way. When you've finished, combine your plans with those of other teams to create a master plan, then use it to organize your descriptions and analyses.

Finally, use what you've learned to make recommendations to administrators or the school board for how the organization could do better what it's supposed to do.

Organizations are complicated. Take your time, do the job right, and realize that what you're doing will help you for the rest of your life as you take what you learn to workplaces and the world beyond school.

(2) *Almost certainly, the immediate area around your school is changing—gradually getting dirtier or cleaner, prettier or uglier, safer or more dangerous, more or less of a "community," etc. List questions and step-by-step procedures you'd follow to find out what's changing, how, why, and with what possible long-term outcomes.*

(3) *Choose one of the following policies and create a flow chart identifying its probable consequences for a nearby neighborhood. Extend the flow chart to identify the probable consequences of those initial consequences, and the further consequences of* ***those*** *consequences:*

- *Every family must grow at least a little—say, at least an eighth—of the food it eats.*
- *No person can generate more than one pound of waste per week that can't be recycled.*
- *Except in an emergency, no able-bodied adult can use a motorized vehicle for a commute of less than a mile.*

(4) *A local official has proposed zoning changes that would allow families to run small businesses in their homes or live in their places of business. In a series of numbered points, argue the pros and cons of the zoning change.**

I know from many years of firsthand classroom experience that these kinds of projects work. They don't just stimulate interest, imagination and creativity, they integrate and make active use of every school subject, bring out unexpected intellectual strengths, and almost always reorder perceptions of relative student ability.

But there's a problem: Most educators aren't free to use such activities because standardized tests can't evaluate what the kids do. The work they produce is too

complex, too original, too idiosyncratic to be scored by a machine. This, more than anything else, explains my opposition to the current thrust of test-based "reform."

Arne Duncan, Michael Bloomberg, Bill Gates, Joel Klein, Jeb Bush, and others now involved in setting school policy across America demand that decisions be "data driven." They cite an old business adage: You can't manage what you don't measure.

To these reformers, "data" largely means scores on standardized tests. Those scores (despite test manufacturers' warnings) increasingly determine educator reputation, employment, and pay. They assign letter grades to schools, grades that often affect real estate values, redistribute state funding, rationalize parent-trigger legislation, and enable other devious privatizing schemes. The scores justify closing neighborhood schools or converting them to charters. They get misused by politicians, and channel billions of dollars of public money into corporate coffers to buy consultant services, tests, and test prep materials.

That's what test scores do. What they don't do, what they can't do, what they'll never be able to do, is measure what's easily the most valuable outcomes of a good education—imagination and creativity.

(I note in passing that piling all the above consequences on the shoulders of the young goes a long way toward explaining why test-inundated kids get depressed, sick, cry, soil their underwear, vomit, hate themselves when they can't finish a test or don't know answers, tune out or drop out when their scores say they're not minimally competent.)

Today's reformers refuse to admit that they have anchored their mandates in false premises. They're so sure that what the young need to know is known, so sure that standardized tests can evaluate the quality of non-standard thought, so sure that competition can do for education what it sometimes does in business, they won't even talk to those of us who disagree. Over the last quarter-century they've built a multi-billion dollar juggernaut based on those three false premises, and it's rapidly burying America in intellectual mediocrity.

Parents and concerned citizens have a choice. They can stand quietly aside as business leaders, lawyers, hedge-fund managers and politicians, cheer-led by mainstream media, continue down the super-standardizing education road, wasting billions of dollars and trillions of learning hours on tests that can't measure abilities essential to survival and success. Or they can accept the centrality of imagination and creativity in humankind's struggle to achieve its potential, and demand that minimum-competency testing be replaced with maximum-performance tasks.

It's one or the other because the two are incompatible.

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*These tasks are taken from or are similar to those found in the course of study *Introduction to Systems,* http://www.marionbrady.com/IntroductiontoSystems.asp.

Notwithstanding the fact that the course is free in exchange for useful feedback from teachers, it doesn't get used or even piloted because commercially produced standardized tests can't evaluate this kind of learner performance. Ω

Diane Ravitch's blog comment-reply@wordpress.com
Posted July 24, 2014:

We need the right kind of standards, not CCSS

In a commentary in the July 21, 2014 issue of Time magazine, columnist Joel Klein takes aim at one of the usual targets of today's education reformers—unions. In a dig at New York City mayor de Blasio, he says, "A mayor who actually cared about education would be seeking longer school days, longer school years, more charter schools…and the elimination of tenure and seniority rules…"

Like just about every other mainstream media pundit, Klein thinks he knows enough about educating to diagnose its ills and prescribe a cure. That he'll be taken seriously testifies to the power of what's become the conventional wisdom, that if America's schools aren't performing as they should it's because teachers aren't getting the job done.

What's the teacher's job? Raising standardized tests scores.

What's the key to high test scores? Rigor.

What does rigor look like? No-excuses teachers doing their thing for as long as it takes to get the job done.

What's "their thing"? Teaching to demanding standards—the Common Core State Standards.

The market-force-education-reform juggernaut set in motion by business leaders and politicians about a quarter-century ago is simple and easily summarized. (1) Adopt tough performance standards for school subjects. (2) Use high-stakes tests to measure performance. (3) Reward high-scorers; punish low scorers.

Which, when you think about it, is off the mark. School subjects are just tools—means to an end. We don't tell surgeons which scalpels and clamps to use; what we want to know is their kill/cure rate. We don't check the toolbox of the plumber we've called to

see if he (or she) brought a basin wrench and propane torch; we want to know that when the job's done the stuff goes down when we flush. We don't kick the tires of the airliner we're about to board; we trust the judgment of the people on the flight deck.

School subjects are tools. Kids show up for kindergarten enormously curious and creative. What we need to know is how well schooling is enhancing that curiosity and creativity. Kids learn an incredible amount on their own long before they walk through school doors. What we need to know is how much improvement there's been in self-directed learning. Kids appear to begin life with an innate sense of what's right and fair. What we need to know is how successfully that sense is being nurtured.

We're on a wrong track. Standards? Of course! But not standards for school subjects. What's needed are standards for the qualities of mind, emotion, character, and spirit the young must be helped to develop if they're to cope with the world they're inheriting.

The Common Core Standards, says the CCSS website, "provide clear signposts along the way to the goal of college and career readiness." Just stick to the CCSS script to be prepared for college and career.

College? Years ago, the Association of American Colleges' "Project on Redefining the Meaning and Purpose of Baccalaureate Degrees" said, "We do not believe that the road to a coherent education can be constructed from a set of required subjects or academic disciplines." I've seen no evidence that the thoughtful among them have changed their minds.

Careers? We have no idea how the interactions of globalization, automation, climate change, clashing societal worldviews, and trends not yet evident will effect careers. The only thing that can be said with certainty is that nobody knows what careers are going to be available when today's elementary school kids are looking for work.

Back in the 70s, in his book Reflections on the Human Condition, Eric Hoffer, philosopher, writer, and longshoreman, wrote something that the Common Core Standards don't adequately reflect: "In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists."

Standards? Sure. But not standards for solving quadratic equations, or for recalling the chemical formulas for salt, sand, baking soda, and chalk, or for interpreting Dr. King's Letter from a Birmingham Jail as some self-appointed "expert" thinks it should be interpreted.

And not standards that make it easy to create machine-scored tests that perpetuate the destructive myth that quality can be quantified and turned into data to drive education reform.

Standards—proper standards—could work wonders. Consider, for example, the effect just one standard could have on teachers, on teaching materials, on kids, on the citizenry, on America:

Schools will be held accountable for sending learners on their way with a deep-seated love of learning and a willingness and ability to follow where that love leads. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted January 12, 2014:

'The Procedure' and how it is harming education

In a *Wall Street Journal* op-ed , high-profile education reformer Lou Gerstner, Jr., wrote, "We must start with the recognition that, despite decade after decade of reform efforts, our public K-12 schools have not improved."

In a speech to the American Federation of Teachers, multi-billionaire Bill Gates agreed, saying the United States has been "struggling for decades to improve our public schools," and the results have been "dismal."

In his December 19, 2013 *Education Week* blog, Marc Tucker, another influential long-time education reformer, asks, "Why has US education performance flat-lined?"

Like Gerstner, Gates, and Tucker, I don't see any evidence that the army of corporate types who left business suites and corner offices to come to the rescue of American education have done anything but dumb down the public's conception of the ends of public education and the proper means to more acceptable ends.

Corporate reformers have had two decades to make their case that what ails American education is a lack of rigor, and two decades to test their theory that market forces are the surest way to kick-start that needed rigor. To that end, they've introduced competition with a vengeance—kids against kids, parents against parents, teachers against teachers, schools against schools, districts against districts, states against states, nations against nations.

And it hasn't worked. But like all true believers, it doesn't shake their faith that rigor is the key to quality performance, that competition is the key to rigor, and that more of it will make America the winner in the bubble-in-the-right-oval race.

I come to the reform problem from a simpler, more direct perspective. Although at one time or another I've played most of the roles connected to education—student, parent, teacher, researcher, school board member, textbook author, contributor to journals, college professor, consultant, administrator, and so on, I think of myself primarily in the role I most enjoyed and in which I learned the most—a classroom

teacher of adolescents, working with kids sent to me against their will, on orders from vague authority figures, behaving as kids could be expected to behave when caged for hours at a time in a small, dull space.

For years I wrote newspaper columns for Knight-Ridder, trying to help general readers think freshly about long-ignored school problems. Below is a response to one of my columns from John Perry, a classroom teacher in Central Florida. Read what he has to say and ask yourself how more rigor would solve his problem.

Marion,

Your comments about the SSS [Florida's Sunshine State Standards] hit home for me this year because I ended up teaching middle school science. It is unbelievable what we are asked to do to our students. I expected that middle school science might be divided up into, say, physical, earth, and life science in 6th, 7th, and 8th grade respectively. Well, no, even that would make too much sense. Sixth grade science is a survey course of…well, everything under the sun. We have a 776 page book loaded with very concentrated information. There are 23 chapters:

1. The Nature of Science
2. Measurement
3. Matter
4. Properties and Changes
5. Waves
6. Motion and Forces
7. Work and Simple Machines
8. Views of Earth
9. Resources
10. Atmosphere
11. Weather
12. Climate
13. Ecosystems
14. The Structure of Organisms
15. Classifying living things
16. Bacteria
17. Protists and Fungi
18. Plants
19. Plant Processes
20. Invertebrate Animals
21. Vertebrate Animals
22. Animal Behavior
23. The Solar System and Beyond

Whew! Seem like a tall order for sixth graders to absorb in one year? Even absurd? Yeah. Well, I'm on a block schedule. My students are expected to absorb all of this in ONE SEMESTER! And get this—the team I'm on (myself, a math teacher, and a language arts teacher), was formed by taking the bottom third of the reading scores in sixth grade and putting all those kids together! How do you think they respond to this textbook, with its blizzard of unfamiliar vocabulary? These kids, who most need hands-on concept building, are expected instead to stand in front of a virtual fire hose of information and be blasted. (Please excuse the mixed metaphors!)

The district has two semester exams to diagnose how my students are doing. Soon, they will be tested on FCAT [Florida Comprehensive Achievement Test]. If they do poorly, the students, the school and I will be labeled failures. Well, there is definitely a failure here, but it isn't me or my kids.

John

Imagine John as the best middle school science teacher in America. Put him in an expertly administered upper-class suburban school. Assign him smart, healthy, highly motivated kids, drawn from advanced placement classes. Be sure each has two college-educated, happily married parents. Limit his class to no more than a dozen, and schedule it for late morning when they're sharpest.

Now, hand John that 776-page textbook to distribute—the one organized like the contents of a dumpster at a demolition site—and assure him it covers the material that will be on the high-stakes tests.

What will happen? Almost certainly, at the end of the term every kid in John's class will ace the test, and everybody—kids, parents, administrators, school board, the local newspaper, cable news—will be impressed and happy.

Everybody except John. He won't be impressed and happy because (remember?) he's the best middle school science teacher in America, and he knows—notwithstanding the test scores—how little his students actually learned in their race to the end of the textbook. They slam-dunked the test not because they learned a lot of science but because they followed The Procedure.

The Procedure: 1. Take notes during lectures, and hi-lite key sentences in the textbook. 2. Before a big test, load the notes and hi-lited passages into short-term memory. 3. Take the test. 4. Flush short-term memory and prepare for its re-use.

It's no exaggeration to say that just about everybody in the country thinks The Procedure isn't just acceptable but essential. It's so broadly used, so familiar, so taken-for-granted, that many schools and universities go to great pains to accommodate it. Some even have rituals to enhance it.

The Procedure, of course, is called "cramming." Do it well and it leads steadily up the academic ladder.

But here's a question: Does the *Procedure* have anything do with educating?

Learning—real LEARNING—starts when, for whatever reason, the learner wants it to start. It proceeds if the aim is clear and what's being learned connects logically and solidly to existing knowledge. It's strengthened when mistakes are made, clarifying the potential and limitations of the new knowledge. It's reinforced when it's put to frequent, immediate, meaningful, real-world use. It becomes permanent when it's made part of the learner's organized, consciously known "master" structure of knowledge.

Slow down for a moment and think about it. Cramming is indisputable proof of the superficiality and inefficiency—even the failure—of what's going on in most classrooms across America. *What's crammed wasn't learned or there would be no need to cram; what's crammed isn't learned or it wouldn't be forgotten.*

In the real world, where it counts, the gap between crammers and learners is vast, and tends to widen over time. Unfortunately, the thus-far-successful "reform" effort to cover the standard material at a standard pace, and replace teacher judgment with machine-scored standardized tests has further institutionalized cramming and hidden the failure its use proves.

What a waste!

Here's a fact: Information overload is just one of about two-dozen serious problems directly or indirectly connected to our 19th Century core curriculum. Sadly, no, tragically, instead of rethinking that curriculum, starting with its fundamental premises and assumptions, reformers have considered it so nearly perfect they're determined to force it on every kid in America.

Aren't we going at the job backwards? Shouldn't we be doing just the opposite—developing and capitalizing on the learner diversity that enables humankind to adapt to change? **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted January 31, 2014:

Why Common Core isn't the answer

As far as I know, no one has asked the general public's opinion about the Common Core State Standards for school subjects. My guess would be that if polled, most people—including most educators—would say they just make good sense.

But not everyone is a fan. Few oppose standards, but a significant number oppose the Common Core State Standards. Those on the political right don't like the fact that—notwithstanding the word "State" in the title—it was really the feds who helped to railroad the standards into place.

Resisters on the political left cite a range of reasons for opposing the standards—that they were shoved into place without research or pilot programs, that they're a setup for national testing, that the real winners are manufacturers of tests and teaching materials because they can crank out the same stuff for everybody—just to begin a considerably longer list.

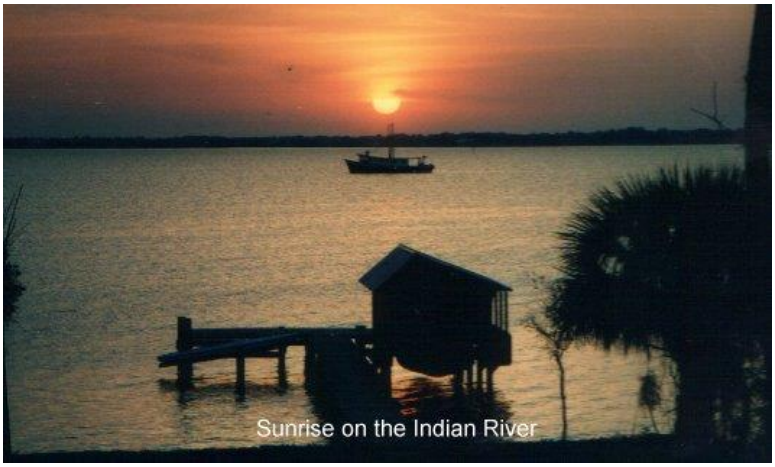
Three cheers for those on the political right. Three more for those on the left. May the chaos in Washington and state capitols over education policy help the public realize that, in matters educational, the leaders of business and industry and the politicians who listen to them are blind bulls in china shops.

I began pointing out problems with subject-matter standards beginning with a 1966 article in an education journal, the *Phi Delta Kappan,* and have been at it ever since. A list on my homepage summarizes a few of the problems. Here, however, I want to focus on just one problem which, unless it's addressed, could ultimately be fatal to the education system.

I'll start by affirming what I believe most thoughtful educators take for granted: The main aim of schooling is to model or explain reality better. As you read, don't lose sight of that. The aim of schooling isn't to teach math, science, language arts, and other school subjects better, but to expand our understanding of reality.

When I use the word "reality," I'm being concrete and specific. What I can see out of the window directly in front of me is a slice of it. I live on the west bank of the Indian River Lagoon on Florida's east coast. Not really a river, the lagoon is a body of brackish water that stretches fifty or so miles north and about twice that to the south. Off the end of my dock it's about two miles wide.

This bit of reality costs me money, and continues to do so, but its moods are a source of pleasure, its sunrises are often spectacular, and its easy access by boat to some local restaurants, the Atlantic Ocean and the rest of the world, are all pluses. I have, then, reasons to try to understand this particular bit of reality. (Be patient. I'm getting to the point.)


Sunrise on the Indian River

Thirty years ago, when I started building my house, I could

often almost walk across the river stepping from clam boat to clam boat. The only clam boats I see now are on trailers in back yards.

Buoys marking underwater crab traps used to dot the river. The traps are gone because most of the crabs are gone.

There was a time when the fish in the Lagoon were so plentiful I've had dinner-sized mullet jump into my boat. That no longer happens.

Sea grasses used to cover much of the lagoon's sandy bottom. Now, the stretch of grassless sand that says the lagoon is sick extends for perhaps a quarter of a mile beyond my dock and keeps expanding. All else being equal, my property is losing value.

What's happened? Here's an over-simplified version:

1. When I began building my house, only one house light was visible at night across the river on Merritt Island. Mangrove thickets lined the shore for miles in both directions. Now, there are dozens of lights, and many manicured lawns stretch down to the water's edge.
2. Much of the property on both sides of the river (including mine) isn't part of a municipality. Everyone has a septic system.
3. The soil up and down the coast is mostly sand. The outflow from septic tanks, and the fertilizers and chemicals used to maintain lawns, easily percolate down to the water table, then seep into the river.
4. Nitrogen and phosphorus compounds in the fertilizer and sewage feed unnatural algae blooms, blocking the light from sea grasses and using up dissolved oxygen needed by marine life.
5. Dead organisms turn into black muck, discouraging new grass growth.
6. Property owners, reasoning that their fertilizer and sewage have negligible effect, say, "I'm taxed enough already. Why should I pay for sewage lines and treatment plants?"

As I said, I have a serious stake in understanding the reality I've been describing. Unfortunately, no subject in the core curriculum can give me that understanding. I have to assemble it myself using content drawn from demography, geology, botany, mathematics, sociology, law, chemistry, hydraulics, political science, psychology, economics, meteorology, and other fields.

Then comes the hard part—*exploring the relationships between those fields.*

Choose something to think about—anything—and the above applies. Whatever you've chosen to understand can't be thoroughly understood in isolation because it's part of a system. That system will have many parts, the whole will be greater than the sum of those parts, and, to add to the sense-making challenge, the whole is dynamic. While you're trying to make sense of it, it's changing.

Compared to most of the complex realities facing humankind, what's happening to the reality visible out my window is small potatoes. But making sense of it (and *all other realities*) requires a particular kind of thinking—a kind of thinking that makes civilized life possible. *However, the Common Core Standards don't promote that kind of thinking. That means it won't get taught, which means it won't get tested, which means we're not really educating, which means too much to even try to summarize.*

This is why Alfred North Whitehead, in his 1916 Presidential Address to the Mathematical Association of England, told educators they needed to "eradicate the fatal disconnection of subjects which kills the vitality of the modern curriculum."

This is why Harlan Cleveland wrote: "It is a well-known scandal that our whole educational system is geared more to categorizing and analyzing patches of knowledge than to threading them together."

This is why John Goodlad, after a massive, multi-year study of American high schools culminating in a 1984 McGraw-Hill book titled, *A Place Called School*, wrote, "The division into subjects and periods encourages a segmented rather than an integrated view of knowledge. Consequently, what students are asked to relate to in schooling becomes increasingly artificial, cut off from the human experiences subject matter is supposed to reflect."

This is why dozens of other scholars have been saying the same thing for at least the last several hundred years: What we're doing isn't working!

The systemic nature of reality, the seamless way the brain perceives it, the organizing process that aids memory, the relating process that creates new knowledge, the conceptual networking that yields fresh insights, the meshing of two seemingly unrelated ideas that underlies creativity—all rely on holistic, systemically integrated and related thought. *And it's not being taught*.

Before today's education "reformers"—in a spectacular fit of hubris—took over America's schools, progress in modeling reality more simply and accurately was being made based on General Systems Theory as it had developed during World War II. *No Child Left Behind* and *Race to the Top* kissed that progress goodbye. Policymakers assume there's nothing wrong with the core curriculum adopted in 1893, so shut up and study, kids.

We can work our way out of the hole we've dug for ourselves, but it can't be done by following orders handed down by authorities in Washington and state capitols, orders that ignore the nature of knowledge, the history of education, the wisdom of hard-earned expertise, the conclusions of research, the nature of human nature, simple management principles, and common sense.

Pushback against a system now abusing the young and wasting their potential is decades overdue. Teachers need autonomy, freedom to experiment, and opportunities

for meaningful dialogue with each other and the communities they serve that they don't now have. For most, however, pushing back in today's economy and retribution-prone school culture comes at a price few can afford to pay.

Political power must be exercised, but parents, grandparents, and thoughtful, caring citizens are the only ones with enough clout to exercise it effectively. They need to recognize poor policy when they see it, organize, and act appropriately. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted February 24, 2014:

One way to help solve America's major curriculum problem

In my January 31st post on this blog, I joined Rene Descartes, Buckminster Fuller, Kurt Vonnegut, Jr., Alfred North Whitehead, Felix Frankfurter, Thomas Merton, Neil Postman, John Holt, Harlan Cleveland, Ernest Boyer, John Goodlad, and dozens of others saying that the Common Core Standards are reinforcing an idea that's doing great damage to education.

Of course, most of the scholars I named, being dead, didn't actually mention the Common Core, but they left no doubt about how they'd have reacted to education policies that ignore the fundamental nature of the world that schooling is supposed to help the young understand.

Massachusetts Institute of Technology Professor Peter M. Senge summarizes the problem on page three of his best-selling book, *The Fifth Discipline*:

"From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole."

If Senge and the others are right that adequate sense can't be made of the world by slicing it into little pieces and studying the pieces without regard for how they fit together and interact, it follows that modern education worldwide isn't meeting its major responsibility.

What this means (at least to me) is something that almost nobody who has a stake in education wants to hear. Current controversial issues—standards, accountability, benchmarks, teacher quality, evaluation, length of school day, the nature of rigor, school grading, test design and uses, value-added measurement, Race to the Top, international comparisons, etc.—are sideshows. They may have slight effects one

way or another on performance, but by diverting attention from the main problem, they're doing more harm than good.

Solving the problem of the traditional curriculum's too-narrow scope would change those issues so much that every one of them would have to be rethought.

That's probably not going to happen, so I'm not optimistic about the future of American education. We're a society that's never been particularly interested in the life of the mind. Our sense of community—"us-ness"—has withered, and with it the ability to solve shared problems. We're not embarrassed by a level of poverty that makes it almost impossible to adequately educate a quarter of the young. Dominated by corporate interests focused on short-term profit, we refuse to acknowledge the near-certainty of a future that will challenge humankind's ability to survive. We expect good work from teachers locked at the bottom of a bureaucracy that gives them no voice in and no control over decisions central to their effectiveness.

And we think the rich and powerful know more about educating than educators. Most people, for example, still don't know that manipulating test scores to flunk more and more kids is just one of many sneaky strategies engineered to convince the citizenry that public schools should be handed over to McCharter chains (with taxpayers continuing to pick up the tab, of course).

My expectations are low, but if, as I believe, a minor tweak can go far toward solving our major curriculum problem, if it can significantly improve what goes on in learners' heads, if it costs nothing to adopt, if it requires no change in staffing, facilities, or equipment, and if it necessitates no special knowledge or training, I argue that the tweak deserves a trial.

Unfortunately, testing it is against the law, law supported by both political parties, the National Governors Association, the Council of Chief State School Officers, the U.S. Chamber of Commerce, the American Legislative Exchange Council, the Center for American Progress, Exxon-Mobil, the Waltons, the mainstream media, Arne Duncan, Bill Gates, Mike Bloomberg, Jeb Bush, and many, many others. In educational matters, they've put their faith in market forces and their money on test-and-punish reform policies, and gotten Congress to bless that faith with legislation. Educators who don't fall in line are likely to find themselves looking for other lines of work.

The tweak I'm advocating is below. It's addressed to educators, but it's in plain English because non-educators—particularly those who vote—are the only effective counter-force to those now setting education policy. The general public needs to understand the tweak and decide if it warrants pressuring politicians to allow educators to check it out.

One: Accept that something is seriously wrong with traditional schooling. Learning is natural, pleasurable, and satisfying, but what most schools do is so at odds

with those emotions it requires all sorts of social and legal pressures to keep them operating.

Two: Accept that myriad internationally known and respected scholars may be right. Think of school subjects as pieces of a jigsaw puzzle that make a lot more sense to kids when they can see the whole that a simple system for connecting the pieces makes clear.

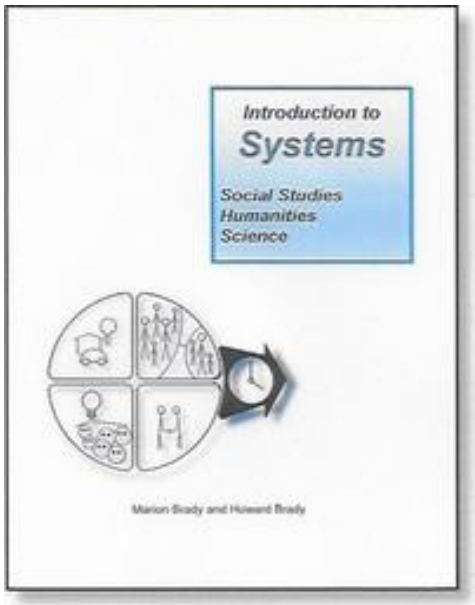
Three: Add a class at the middle or high school level that uses the core subjects to do what everybody is already doing, and needs to do better—make sense of immediate experience. Personal interpretations of what's happening "right here, right now," determine what people do next, and what people do next determines the courses of lives and shapes human history. Here are several ways to put such a class in place without lengthening the school day or year or going outside the boundaries of familiar school subjects.

Four: Find a teacher or teachers on staff willing to meet with the class, not to "teach" it, but to join it as "coordinator and co-learner."

Five: Accept that the unfamiliar nature of the classwork—making more sense of the everyday, of the utterly familiar, of life as it's being lived—differs from traditional schooling enough to require a little handholding.

Six: Download (it's free) *Introduction to Systems*,[6] and see it as an example of a sequence of thought-provoking puzzles or problems that help learners organize knowledge and make sense of it in a simpler, more natural way than school subjects allow.

Seven: Consider the advantages of a general education curriculum that, unlike commercially produced materials, continuously evolves and improves as teachers and kids, in electronic touch with each other, talk about how to make that curriculum better.



That's it. Those who familiarize themselves with *Introduction to Systems* or the general idea it promotes will, I think, discover that it not only gives learners a broader and deeper general education than the core curriculum, but that it does so in far less time. When that happens—when educators have more time to think about ways to give depth and dimension to books and lectures—the potential for a genuine revolution in the quality of schooling presents itself.

[6] Originally *Connections: Investigating Reality*.

For example: Some kids can sing—a few really well. Others can't carry a tune, and couldn't even if offered a chance to sing back-up in their favorite band. A few can run a less-than-five-minute mile. But most can't, and couldn't even if it earned them their choice of any pair of sneakers in the sporting goods store. There are kids who can paint an image well enough to peddle it, but most can't produce anything beyond refrigerator door postings.

What's true for singing, running, and painting is true for solving algebraic equations, writing stories, thinking like a chemist, and all other fields of study. It's only when kids show up for school that common sense is suspended and, in the name of a vague, not-thought-through idea called "a well-rounded education," every kid, no matter abilities, interests, demonstrated skills, life situation, or anything else, is herded through the standard academic hoops.

Wouldn't it make far more sense if schools got their general education expectations out of the way in an hour or so, then identified and grouped the math whizzes, the mechanically inclined, the artists, the writers, those involved in projects, and so on, assigned teachers to the groups, and let them go as far as they can go as fast as they can go?

Education is long overdue for what business types sometimes call "disruptive innovation," but the bureaucratic depth and complexity of systems of public education, and simplistic policies set by amateurs in state legislatures and Congress, block real innovation. My suggested status quo-accommodating tweak is an easy sell to a great many experienced educators, but it isn't being tried because present conceptions of "reform" are so narrow and rigid, and failure to fall in line is so certain to trigger a punitive response.

Here's this blog's takeaway: *It's impossible to understand a dynamic, systemically integrated world using a static, fragmented curriculum*.

I challenge education policymakers and pundits who disagree with that statement to either make their case, publicly, in the same medium in which they're reading these words, or get behind a campaign to allow public school teachers and administrators to experiment with innovations that can't be evaluated by machine-scored, multiple choice, standardized, subject-matter tests. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted April 2, 2014:

10 things wrong with what kids learn in school

Mainstream media, cued by corporate press releases, routinely claim that America's schools are markedly inferior to schools in other developed nations. The claim is part of an organized, long-running, generously funded campaign to undermine confidence in public schools to "prove" the need to privatize them.

Syndicated columnists, education reporters, editorial boards, and other opinion leaders interested in thoroughly understanding the campaign to privatize public schools should do two things. First, they should stop dismissing all the critics of the Common Core State Standards as Tea Party types opposed to change. As my books, articles, newspaper columns and blogs make clear, I argue that change is not only essential but decades overdue. What I oppose is superficial, dishonest change—change sold by misrepresenting the quality of what preceded the Common Core Standards, half-truths about the process that created the Standards, and hype that's radically over-selling their value.

Second, before taking a position, opinion leaders should examine the "Sandia National Laboratory's Report," and read at least three books: *The Manufactured Crisis*, by David C. Berliner and David J. Biddle; *Why is Corporate America Bashing Our Public Schools?* by Kathy Emery and Susan Ohanian, and Diane Ravitch's *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education*.

I'm an unequivocal supporter of public schooling, and think the historical record, fairly examined, justifies my support. This doesn't mean, however, that I think all was well with America's schools before corporate interests and politicians took control of them. Far from it. Educators have been handicapped for more than a century by a curriculum adopted to serve a too-narrow purpose—admission to college—and failure to address that curriculum's problems has made the institution vulnerable to destructive corporate and political manipulation.

Below are brief descriptions of some of the more obvious of those problems.

1. The standard core curriculum is stuck in the past.

Adopted in the late 19th Century, the curriculum now shaping America's schools reflects the "big idea" of that earlier era—the factory system, standardization of parts, mass production, centralized decision making, and passive worker compliance.

None of those fit the present era. Social change has seen to that, and the rate of that change is accelerating. Change requires adaptation, and adaptation requires

creativity, autonomy, exploitation of differing perspectives, and continuous questioning of authority.

2. The standard core curriculum is so inefficient it leaves little or no time for apprenticeships, internships, co-op programs, projects, and other ways of "learning by doing" (which is how most of us learned most of what we know).

How little most adults remember and use of what they once read and heard at the secondary level of schooling testifies to a level of inefficiency that wouldn't be tolerated in any other field or profession.

The main obstacle to efficiency is the assumption that the most important task is "covering the material" in the core curriculum. Given the Internet and ease of access to it, given the vast range of learner abilities, interests, and needs, given the inevitable obsolescence of much existing knowledge, and given our ignorance about what the future holds, stuffing kids' heads with what today's adults happen to know is less important than helping them develop *knowledge-evaluating and generating* skills. Those can be worked into the familiar curriculum without difficulty, but today's reformers, convinced that working longer and harder is better than working smarter, aren't interested.

3. The standard core curriculum gives thought processes other than recall short shrift, or no attention at all.

What gets tested, gets taught. Because, unlike all other thought processes, short-term memory can be measured with precision, traditional testing has emphasized it.

The ability to remember is, of course, important, but the main educational challenge—making better sense of real-world experience—requires the ability not merely to recall but to infer, generalize, hypothesize, relate, synthesize, value, and so on.

When we ask students to recall, evaluation of performance is based mostly on the *quantity* of their responses. But when they're asked to hypothesize or infer, their responses will differ both quantitatively and *qualitatively*. Do two "good" hypotheses equal four "fair" and seven "poor" hypotheses? What's a "fair" hypothesis? A "poor" one?

Recent tests take a weak stab at evaluating "higher order" thought, but the fact remains that machines can't evaluate original thought, and neither can humans using "canned" criteria. Limiting what's taught to what machines can measure isn't just demeaning, it's a recipe for societal disaster.

4. The standard core curriculum ignores vast and important fields of knowledge.

Give thought to the news of the day, or take a long view of human history, and it will be clear that the greatest threats to life, liberty, and happiness are conflicts stemming from differing value and belief systems within and between societies.

These systems—sometimes called "worldviews"—are the most important and useful thing we can know about ourselves and others, but the standard core curriculum lets learners go from kindergarten through graduate school without examining either their own worldview or those of others.

Neither are the young likely to study the principles of group dynamics (essential knowledge in the workplace). Or societal responses to loss of autonomy. Or the process of polarization. Or the close relationship of economies and group stability. Or the effects of technological change on human relationships. Or the role of emotion in selective perception. Or the dynamics of social change—just to begin a list of critically important knowledge that lies outside the usual curricular boundaries.

5. The standard core curriculum breaks knowledge—and the reality it seeks to explain—apart, ignoring its systemic, mutually supportive nature.

Understanding any major problem—war, poverty, oppression, crime, discrimination, resource depletion, energy sourcing, environmental degradation, taxation, labor-management disputes, corruption, international tensions, whatever—requires an understanding of links between myriad factors and forces. Because those factors and forces invariably cut across subject-matter boundaries, or deal with fields of knowledge not taught at all, the core curriculum fails to produce a citizenry intellectually equipped to cope with the problems it generates.

6. The standard core curriculum emphasizes secondhand rather than firsthand knowledge.

The new big deal in education is "informational reading"—reading that informs. Is it important? Of course. Should it be the main thing that kids do in school? No. Reading and interpreting text is only one of many ways to learn, and not the most important.

The most explosive period of learning occurs in the first years of life, before we learn to read. There are lessons in that fact that our fixation on reading, and our stubborn insistence that play, art, music, theater, dance, and so on, are "frills," keep us from understanding and appreciating.

Schools are still being built with classrooms rather than flexible workspaces. Schedules are still being imposed that keep kids in their seats and isolated from the larger world for most of every day. We're ignoring research and common sense about how humans learn.

7. The standard core curriculum costs a great deal to "deliver."

Failure to explore and exploit the merit of integrated study, use of "canned," commercial instructional materials rather than local resources, overuse of expensive technologies, excessive administrative costs, unnecessary testing and test prep, grade retention from inappropriate curricula and unreasonable pass-fail cut scores on standardized tests—these and other factors tied to an unexamined, taken-for-granted curriculum, waste time and money.

8. The standard core curriculum has no criteria establishing what new knowledge to teach, or what old knowledge to discard to make room for the new.

Knowledge is expanding at an ever-accelerating rate, but no agreed-upon aim, no overarching purpose, no philosophy, sorts through the near-infinite possibilities and constructs a coherent curriculum keyed to life as it's lived.

Today's reforms have us obsessing about the contents of school subjects, when the real challenge is figuring out how to *use* those tools (and subjects not now taught) to produce admirable people, thoughtful citizens, individuals able to capitalize on the potentials of humanness.

9. The standard core curriculum disregards the brain's need for order, organization, and pattern. The theory of learning that dominates traditional schooling is simple: "If you throw enough mud on the wall, some of it is bound to stick." A little does stick, of course, but not enough to justify instruction based on the theory.

The main problem is the brain's inability to cope with unorganized and disorganized information. School subjects organize information, but each one does so differently, and kids—lacking a "master" organizer to logically relate new knowledge to existing knowledge—store it in short-term memory, then erase it when the threat of testing no longer looms.

10. The standard core curriculum is silent on complex ethical and moral questions.

This is difficult territory, which is why it's unacceptable for the curriculum to ignore it.

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Someone once said that moving the education establishment is harder than moving a Jell-O elephant. That's an apt observation, but it doesn't mean that change is impossible, just really hard.

As an administrator and consultant, I've been down the usual reform roads and found only one that actually changes, permanently, how most teachers teach. It verifies that what's common knowledge in management circles is true, that genuine, lasting

change can't be imposed top down. If the process doesn't actively involve those whose thorough understanding and acceptance is necessary to make it work, it won't work.

In education, "those whose thorough understanding and acceptance is necessary to make it work" are teachers and kids. What do teachers and kids need to understand and accept?

1. An organized mind is more productive than an unorganized or disorganized mind.
2. School subjects use so many different information organizers the mind can't cope.
3. Systems theory simplifies the organization of knowledge.
4. Systems theory can be learned. Easily.
   http://www.marionbrady.com/IntroductiontoSystems.asp

What do policymakers and school administrators need to understand and accept?

Flying the Standards! banner, the Business Roundtable has been the primary organizer and coordinator of the present thrust of education reform. They've focused on standards for school subjects because, they say (correctly), that standards drive everything else—curriculum, teacher training, and assessment.

Many educators and I believe the Business Roundtable isn't just wrong but spectacularly so. The standards coin has another side. The late authority on urban design, Jane Jacobs, in her book, *Dark Days Ahead,* summed that side up in just six words: "Standardization is the parent of stagnation."

What policymakers and administrators need to understand and accept is that *standards keyed to a fundamentally flawed curriculum are fundamentally flawed* (as, inevitably, are tests keyed to the standards),

The members of the Business Roundtable—rich, politically powerful, and speaking with one voice—will probably get their way. I'm suggesting a way around the creeping but inevitable stagnation that will follow. Adopting the Common Core State Standards doesn't preclude going beyond them by making use of systems theory. Neither does it preclude going beyond the educational performance of Shanghai, Finland, South Korea, or any other system of education anywhere in the world that arbitrarily and artificially fragments the study of reality without an integrating strategy.

Again—here's a link to a simple, free, adolescent-friendly tool for using systems theory as a "supra-disciplinary" organizer of knowledge:
http://www.marionbrady.com/IntroductiontoSystems.asp Ω

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted June 18, 2014:

What real learning actually looks like in class

Part One

The main theory shaping traditional schooling says teaching means delivering information. Critics say that's a poor theory, but its adequacy is so taken for granted that billions of private and taxpayer dollars are being spent, millions of kids and teachers are being battered, and the future of America is being put at risk, by schemes based on the theory. Incredibly, the No Child Left Behind and Race to the Top programs were put in place without a single pilot or experimental program to check the validity of the "deliver information" theory.

Like many long-time educators, I think the theory is simplistic at best and flat wrong at worst. That very wise teacher, the late John Holt, pinpointed the problem in a 1984 article in the magazine *Growing Without Schooling*. "Learning is not the product of teaching," he wrote. "Learning is the product of the activity of learners."

When I finally accepted that obvious fact, I stopped delivering information and started giving small teams of learners something difficult to do. I became an advocate of project-based learning (PBL) (http://en.wikipedia.org/wiki/Project-based_learning). Its merit is firmly established. Research, common sense, and well-performing PBL programs in America and abroad make clear the merits of schooling that allows kids to move beyond the forced passivity of reading and listening, get up from their desks, and undertake real-world, hands-on tasks that teach as only firsthand experience can.

But acceptance is slow. Very slow. The conventional wisdom says teachers deliver information. Teachers are trained to deliver information. Media images of classrooms show teachers delivering information. Powerful people—Presidents of the United States, governors, chief state education officers, Congress, Bill Gates, Arne Duncan, the Waltons, and so on—think educating means delivering information. The publishers of textbooks are in the information-delivery business, and the manufacturers of standardized tests create tools to measure how much information is being delivered.

(There's growing resistance to the testing juggernaut, but mostly because of over-testing, not because the "delivery" aim is being questioned.)

There is, however, a problem with project learning. Schooling that doesn't teach the usual content of the core curriculum in the usual way isn't acceptable, and projects don't do that. They have intellectual depth but not the breadth to cover the information delivered (albeit poorly) by the core curriculum.

So I've a proposal—a project so all-encompassing and difficult that learners undertaking it have no choice but to make continuous use of the core subjects. They learn and *remember* it, because they're involved in a project they consider important.

That project: Designing and carrying out a long-term study of the school they attend, and using their growing knowledge of their school to improve it.

Schools have histories, infrastructure, purposes, and problems. They have populations, patterns, and procedures. They have community relationships and responsibilities. They have a culture. The possibilities for description and analysis are vast and varied.

For example, schools use energy—electricity, and probably, directly or indirectly, some form of fossil fuel. Developing real, in-depth understanding of the sources of that energy, how the school uses it, how much it costs, how efficient it is, how it impacts the environment, and so on, doesn't just lead to geology, chemistry, physics, economics, politics, and other fields, it relates and integrates them in ways not possible when those fields are studied in isolation from each other as schools ordinarily offer them.

Consider: The school models the larger world in all its incredible complexity. Making sense of it has learners doing, with help from professionals, what they'll be doing for the rest of their lives in their jobs, in the organizations to which they belong, in their neighborhoods and communities, and in their country. It has them doing what all humans, consciously or subconsciously, continuously do—ask themselves, "What's going on here, how can I make the most sense of it, and put that sense to good use?"

Consider: Asking kids to use their growing understanding of the school to propose ways to improve its performance not only shows a level of respect for their capabilities that pays off in myriad, often unexpected ways, it can be a major source of fresh thinking.

Consider: When what's learned is concrete rather than abstract, when it's immediately useful instead of "this will be on the test," when knowledge is forged by dialogue with peers and coaches, so much more is accomplished in so much less time it allows the entire school day to be rethought. With the basic skills and concepts of a general education covered by the project, there's time for advanced classes for those for whom they're appropriate, time for electives discarded by present reforms, time for extra-curricular activities, time for magnet schools to expand instruction in their specializations, time for apprenticeships, work-study arrangements, and other, not-yet-invented alternatives to "seat time.

Finally, consider that schools are comprehensive, integrated sociocultural *systems, and such systems, writ large and called "cultures" and "civilizations," are the makers of meaning and the shapers of human history*. What better way to grasp the

"big picture" of life on planet Earth than by intensive study of a small-scale but near-perfect manifestation of it?

All that from a teaching resource that's instantly accessible and doesn't cost a dime.

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Part Two: How "active learning" looks in a real school

In Part One, I argued the merit of project-based learning, with particular emphasis on a project that had small teams of learners designing and carrying out a detailed, long-term study of the school they attend, and using their growing knowledge to improve it.

What follows are parts of an email from a working educator, William Webb, director of The Center for Educational Options in Henry County, Kentucky. His school, he says, "is heavy with students who've given up on schooling. Frustrated and often angry, they come to us as in-school drop-outs, present in body (because the law requires it), but absent in spirit."

His first concern (as it should be for all educators) isn't academics but in "creating a sense of community." He does this by teaching a set of social skills (communication and assertiveness, emotion-management, problem-solving, conflict-resolution and working in groups) known to be central to positive, successful work and community interactions."

Teaching life skills in the context of community, he says, "takes advantage of innate needs for belonging, competence, and efficacy. As such, students understand intuitively that the skills they are learning are useful and meaningful."

But it's a school, so the core subjects must be taught. For that, he described his experience using the course of study, *Connections: Investigating Reality*[7], in the manner described in Part One.

Here's more of his post:

> *…we introduced our students to the notions of "patterns" and "connectedness" and the dynamics of "systems." To grasp these abstract concepts as they apply to relationships between human behavior and physical environments, the students decided to acquaint themselves in a more mindful way with a small commons area located between our building and the high school. Working in teams of four, the students were first asked simply to describe the area linguistically.*

[7] Revised and retitled *Introduction to Systems*, but all the activity Webb describes applies equally to the newer version of the course.

They were mildly surprised to realize that a simple verbal description was not simple at all. The boundary of the area was established beforehand, and yet descriptions varied considerably from group to group. Landmarks that seemed important to one group were virtually ignored by another. Estimates of distance were wildly inaccurate.

Words chosen to describe some aspect of the environment were imprecise and vague ("There's a small hill a little bit behind us that's pretty steep."). Listening to each group's verbal descriptions, no one needed a curriculum or assessment expert to define the "lesson targets." The important questions were obvious. How do we account for the differences in descriptions? How do we reconcile these differences to come to a shared perception of our environment? Why is it important to be precise in describing our surroundings? How do our differing perceptions of our immediate surroundings influence the way we interact with each other? These and many other questions were asked and answered in the follow-up discussion to this "simple" exercise.

Moreover, student involvement during this discussion was profoundly different from typical high school classroom interactions. Freed from the cognitive task of memorizing facts, our students argued and conceded and elaborated and prioritized and paraphrased and deduced and just about every other verb that the Bloom taxonomists say are important to learning.

And they were doing it in the context of an authentic task with real-life implications. Once the students had settled on a verbal description of the commons area, they were asked to draw a diagram of the area to scale. Not one student had any experience with that exercise. Most were math-phobic, having been spectacularly unsuccessful in the math courses taught in the traditional classroom. But having spent the past few days thinking about their environment in a more mindful way, they were motivated to tackle this assignment.

Armed with 50' tape measures, they had little trouble measuring the lines that defined the area's boundary. But connecting those lines in a scaled representation of the area presented some challenges. One challenge was the way an adjacent building jutted into the space the students were detailing. In order for the scaled drawing to come out right, the angle that the building "interrupted" the space had to be accurately defined—and it wasn't an obvious right angle. With no way to use a protractor, the students were stymied.

Attempts to use their limited knowledge of geometry to find a mathematical solution were futile. Solutions on the Internet were too technical in their language to be helpful. And then, in a flash of insight, one student (whose math skills had been assessed by standardized testing measures as being in the lowest "novice" range) ran into the classroom and returned with a block of modeling clay which he

proceeded to shape around the building's corner. Once he had "modeled" the angle in this way, it was a simple matter of transferring the angle to a piece of paper which could now be measured with the protractor.

Voila!! The satisfaction this student felt at finding that solution and the affirmation he received from his classmates was a brand new experience. He felt smart. He was smart—and Connections *gave him a chance to demonstrate that smartness in a way the traditional curriculum never had.*

One other example:

As previously mentioned, the students were asked to draw a scaled diagram of the commons area they had chosen to investigate. This, of course, was a ratio and proportions exercise most likely introduced to students in elementary school. But our math-challenged students approached the assignment as if they had been asked to prove the Pythagorean Theorem. A freshman girl (let's call her Kayla) with a neurotic aversion to all things mathematic, watched quietly while the other three (somewhat mathematically challenged) members of her group struggled to work through the steps for converting their measurements to the scaled drawing.

After looking at their measurements and the size of the graph paper they were required to use, they decided that 8 feet of measured distance should be 1 inch on the drawing. There were dozens of measurements—2'9", 47'3", 9'4", etc. The teachers were no help. The students were on their own to figure this out. Normally, Kayla tuned out when presented with an assignment from a math book, engaging in all manner of avoidance (and class distracting) behaviors. But this was different…a problem, for sure, but not just a math problem. So, Kayla listened differently and she watched as different strategies were tried, and then—she got it! "We gotta make everything inches, and then we have to divide by 96!"

She showed her group mates. It was a special moment and nearly impossible to describe. Normally a bit histrionic in her actions, Kayla seemed more centered, more authentic, in her excitement and enthusiasm at discovering this hidden skill. She was clearly enjoying feelings of competence that she rarely experienced in the school setting, let alone while doing math. She liked how it felt. She insisted on doing all the conversions herself, working without a break through part of her lunch period to finish.

Connections*, with its emphasis on creating the type of "sense-making" opportunities in which the brain strives innately to engage, provides a much broader landscape for their occurrence. For those truly interested in addressing the inefficiencies in our current educational system, this course of study is a sensible, doable place to start.*

Educators who feel their first obligation isn't to raise test scores but to help the young make the most-possible sense of themselves, others, and the world, should find *Introduction to Systems* (the new version of *Connections*) worth exploring. It's a first of its kind and begs for continuous inputs from working classroom teachers, but it's a start. And it's free, needing merely to be downloaded: http://www.marionbrady.com/IntroductiontoSystems.asp. Ω

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted August 1, 2014:

What do standardized tests actually test?

A headline in the January 26, 2009, issue of ***Forbes*** reads: "Bill Gates: It's the Teacher, Stupid"

The article that follows says that on a conference call with journalists, "Gates pointed out that experience (as measured by years on the job) and master's degrees (which carry great weight in teacher hiring) show no bearing on whether someone will be a great teacher or a mediocre one."

Gates' opinions are important. He's done as much as anyone or more to shape current education policy in America, and his focus on teachers — the good ones as miracle workers, and the tenure-protected bad ones as the main cause of poor school performance — has pushed aside interest in and dialogue about other social and institutional factors affecting school performance. He's spent millions trying to pinpoint what makes a teacher great. He's reached no firm conclusion, but thinks the great ones are easily identified. They're the ones who raise scores standardized tests — and to school reformers like Gates, test scores are infallible indicators of quality.

The truth is that teaching—trying to shape minds—is hard, complicated work. Claims that class size, school size, teacher education, and teacher experience make no difference in performance is sufficiently at odds with common sense to require an explanation.

Like most people, Gates believes that ***learning is a product of teaching***. That assumption is the bedrock of traditional schooling. It's taken for granted by newspaper and magazine editors, syndicated columnists, and talking heads on television. It shapes nearly all commercially produced teaching materials. It's how schooling is portrayed in movies and on television. It's why traditionally arranged classroom furniture is in rows facing front, why most teachers talk a lot, assign pages in textbooks, ask questions about what's been said and read. It's the conventional wisdom.

Teachers teach, learners learn, and standardized tests monitor how well the process is going. The tests measure a quantity—the amount of information taught, minus the amount not learned or learned and forgotten. Subtraction yields a single, precise number convenient for sorting and labeling kids, teachers, schools, school systems, states, nations.

Simple and straightforward. Right?

There's a now-familiar ancient Chinese proverb which, loosely translated, says, "Tell me and I'll forget. Show me and I'll remember. Involve me and I'll understand."

That's three very different approaches to teaching—telling, showing, and involving. The first two lend themselves to standardized testing. The third one—the only one that really works—doesn't. It says that what needs to be evaluated are the outcomes of personal experience, and personal experience is very likely to be too individual, too idiosyncratic, too much a product of a teachable moment exploited or created by the teacher, for its outcome to be evaluated by machine-scored standardized test items.

Involved learners don't just read about plants; they're outside, identifying, examining, and classifying, the weeds and whatever else is growing around the school. Involved learners aren't filling out worksheets about geometric principles; they're determining the height of the school's flagpole by measuring angles and lengths of shadows.

Teachers doing those kinds of things are usually older, better educated, and more experienced, but high-stakes testing's single-minded focus on scores has reduced them to simply guessing what's probably going to be on the test and hammering it to near death. Experiences that create understanding? When test scores can dictate what happens to you, your students, the school's principal, and the school, understanding runs a distant second to filling in the right bubble on the answer sheet.

It took me about 15 years in the classroom—and a federally funded 1960s "think freshly" initiative—to accept that what mattered most wasn't what I ***said*** but what kids ***did.*** When I made that radical switch, I began a search that continues, a search for experience-creating activities (a) so interesting, the teacher can leave the room and nobody notices, (b) so useful, the activity's relevance is self-evident, (c) so complex, the smartest kid in the class is intellectually challenged, (d) so real-world, perceptions of who's smartest constantly shift, (e) so theoretically sound, the systemically integrated

nature of all knowledge is obvious, (f) so wide-ranging, the activities cover the core curriculum (and much more), (g) so varied, every critical thinking skill is exercised, (h) so scalable, concepts developed on a micro level adequately model macro phenomena, (j) so effective, when the activities themselves are forgotten, their benefits are fixed permanently in memory.

The raw material for creating a near-infinite number of activities that meet those nine criteria isn't hard to find. It lies within the property boundaries of every school or randomly chosen slice of real life. Finding it is mostly a matter of looking at the too-familiar and the taken-for-granted until it becomes "strange enough" to see.

Modern school reform based on test scores as the main accountability measure — supported by the Business Roundtable; the U.S. Chamber of Commerce; the National Governors Association; the Gates, Broad and Walton Foundations; some big-city mayors, among others—have engineered an educational train wreck. They took over an institution struggling to replace the minimally productive 19th Century idea that ***learning is a product of teaching*** with the demonstrably better idea that ***learning is a product of the activities of learners***. Then, instead of asking educators how they could help with the transition, they slammed the door in educators' faces and wrote standards and tests that have locked the sterile 19th Century view of teaching even more rigidly in place.

For millions of kids, it's too late to undo the damage they've done. But if parents and other concerned citizens make enough noise, the giant, tax-wasting, kid-abusing, craft-and-profession destroying, super-standardizing, multibillion dollar testing juggernaut that's perpetuating a stupid idea of what it means to educate and be educated, can be stopped.

If that can be made to happen, teachers can pick up where they left off before they were rudely interrupted—trying to figure out how kids learn best.

Still, we will come away from this reform era having learned a couple of useful lessons: One is that no machine can measure the quality of complex, emotion-filtered, experience-based learning. And the second: If you're testing the wrong thing, there's no reason to keep score.

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted October 17, 2014:

What the Common Core standards can't do

"Mr. Brady, you have to read this book!"

The year was 1961. Nancy Hoover was home for the Christmas holidays at the end of her first semester at Georgetown University. Earlier in the year, as a high school senior, she'd been one of my students. Now, she was standing at my front door, shoving a book at me in a way that said, "Read this! No excuses!"

The book was *The Evolution of Civilizations* by Carroll Quigley, one of her professors in the Georgetown School of Foreign Service.

I read it, so wasn't surprised many years later when President Bill Clinton mentioned Quigley's influence on him, or when Quigley's obituary in the Washington Star in 1977 said that many Georgetown alumni considered his two-semester course on the rise and fall of civilizations the most influential in their undergraduate careers.

Nancy picked her book up a few days later. I ordered a copy for myself.

Quigley wrote at length about a social process called "institutionalization," arguing that it played an extremely important role in societal health. To solve problems, he said, societies create "instruments"—hospitals to care for the sick, police forces to control deviant behavior, highway departments to build and maintain roads, schools to educate the young, and so on.

But gradually, over time, those instruments become "institutions," more concerned about perpetuating themselves than solving the particular problem that prompted their creation. Hospitals put procedures ahead of patient care; charitable organizations channel increasing amounts of money into administration. Generals and admirals cling to strategies and weapons that once worked well but are no longer effective.

Schooling—not just in America but worldwide—has institutionalized. School subjects took shape as means to the end of improving sense-making. Gradually, however, they've taken on lives of their own. We don't, for example, ask if algebra is so central to adult functioning and societal well-being that it should be a required subject, so important that failure to pass the course is sufficient reason to deny a diploma. We treat the subject as a given, arguing only about how many years to teach it, at what grade levels.

What's true for algebra is true for every school subject. The core curriculum adopted in 1893 moves inexorably toward ritual, largely untouched by classroom experience, research, and societal needs. Standards keyed to that curriculum—standards

reflecting the biases of the writers, standards not subject to professional debate before adoption, standards not classroom tested—have been imposed top-down. Tests scored by machines, tests that can't evaluate original thought, tests with built-in failure rates, tests that directly affect the life chances of the young and America's future—are shielded from the eyes of parents, teachers and the general public.

Schooling is supposed to help the young make the best-possible sense of themselves, others, and the world. To that end, schools focus their attention on the core subjects, and those subjects can't do the job. Trying to make sense, the brain doesn't click from core subject to core subject. The information feeding into it from eyes, ears, and other senses, filtered by emotions and past experience, is far too complex to be explained by the subjects that make up the core curriculum.

I tried to illustrate this complexity in a column distributed to newspapers by Knight-Ridder/Tribune Information Services on April 3rd, 2000:

> "…In the real world, the world we're trying to help the young understand, everything connects to everything. We want a pair of socks. Those available have been knitted in a Third World country. Power to run the knitting machines is supplied by burning fossil fuels. Burning fossil fuels contributes to global warming. Global warming alters weather patterns. Altered weather patterns trigger environmental catastrophes. Environmental catastrophes destroy infrastructure. Money spent for infrastructure replacement isn't available for health care. Declines in the quality of health care affect mortality rates. Mortality is a matter of life and death. Buying socks, then, is a matter of life and death.
>
> "Making sense of this simple cause-effect sequence requires not only some understanding of marketing, physics, chemistry, meteorology, economics, engineering, psychology, sociology, political science and a couple of other fields not usually taught in school, **it also requires an understanding of how all the fields fit together.**
>
> "Preparing to put a jigsaw puzzle together, we study the picture on the lid of the box. It's the grasp of the big picture—the whole—that helps us make sense of the individual pieces. Formal education doesn't give kids the big picture. It gives them instead a little biology, a little poetry, a little history, a little of this, a little of that, but nothing about how the bits and pieces are connected…"

The curriculum is to schooling as blueprints are to builders, as maps are to travelers, as patterns are to clothing manufacturers, as models are to designers, complicated by the fact that what needs to be understood is dynamic, therefore impossible to model with a static curriculum.

Common sense says that getting schooling right begins with getting the curriculum right, but that fact doesn't seem to have occurred to the business leaders and

politicians—educational amateurs all—now pulling the education policy strings. Instead of funding a rethinking of the blueprint, the map, the pattern, the model, they've spent billions locking a deeply flawed curriculum in rigid, permanent place with the Common Core State Standards.

In a properly functioning educational system, the curriculum isn't fixed. It capitalizes on local resources. Its relevance and practicality are obvious to all learners. It reflects their infinitely varied needs, abilities, hopes, conditions and situations. It continuously evolves to adapt to inevitable environmental, demographic, technological, and worldview change.

The Common Core State Standards may or may not improve the teaching of math, science, language arts, and social studies, may or may not inch up the scores on standardized tests. ***What the Standards can't do is lift learners to the levels of intellectual performance that are possible when everything they know becomes an organized, systemically integrated, mutually reinforcing structure of knowledge.***

***

Note: In journal articles and a recent book, I've described a relatively simple, low-cost solution to the fragmented-curriculum problem. In a course of study for adolescents, I've illustrated how the idea can be implemented. There are educators who'd like to make use of the idea, but the boundaries created by current reforms are so narrow, and the penalties for stepping outside of those boundaries are so severe, they aren't free to do so. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss,
Posted November 19, 2014 (Note: This version differs slightly from that posted on the blog):

A paradigm shift schools need now — and it's not Common Core, tech or rigor

Modern education, worldwide, has lost sight of its primary mission—helping humankind survive.

Survival requires adapting to technological, environmental, demographic, and cognitive change. Adapting to change requires new knowledge. New knowledge comes primarily from the discovery of relationships between parts of reality not previously thought to be related.

Because the math-science-language arts-social studies "core" curriculum ignores important fields of study, and fails to treat those it doesn't ignore as parts of an integrated whole, it radically limits relationship-discovery options. Locking the core in permanent place with the Common Core State Standards perpetuates the most serious problem with modern education—its imagination-limiting boundaries.

Below, from my much longer list, nationally and internationally known and respected scholars weigh in on the problem:

Leon Botstein: ""We must fight the inappropriate fragmentation of the curriculum by disciplines . . ." ***The Chronicle of Higher Education***, December 1, 1982, p. 28,

Neil Postman: "There is no longer any principle that unifies the school curriculum and furnishes it with meaning." ***Phi Delta Kappan***, January 1983, p. 316

John Kemeny: "The problems now faced by our society transcend the bounds of the disciplines." Quoted by William Newell in ***Liberal Education***, Association of American Colleges, 1983, Vol. 69, No. 3

Ernest Boyer: "All of our experience should have made it clear by now that faculty and students will not derive from a list of disjointed courses a coherent curriculum revealing the necessary interdependence of knowledge." (Paraphrased by Daniel Tanner in his review of Boyer's book ***High School. Phi Delta Kappan***, March 1984, p. 10)

John Goodlad: "The division into subjects and periods encourages a segmented rather than an integrated view of knowledge. Consequently, what students are asked to relate to in schooling becomes increasingly artificial, cut off from the human experiences subject matter is supposed to reflect." ***A Place Called School***, McGraw-Hill, 1984, p. 266

Harlan Cleveland: "It is a well-known scandal that our whole educational system is geared more to categorizing and analyzing patches of knowledge than to threading them together." ***Change***, July/August 1985, p. 20)

Robert Stevens: "We have lost sight of our responsibility for synthesizing knowledge." (***Liberal Education***, Vol. 71, No. 2, 1985, p.163)

Arnold Thackray: "The world of our experience does not come to us in the pieces we have been carving out." Quoted in ***The Chronicle of Higher Education***, October 1987, p. A 14

Buckminster Fuller: "American education has evolved in such a way it will be the undoing of the society." (Quoted in ***Officer Review***, March 1989, p.5)

David William Cohen: "Testing companies, textbook publishers, teacher specialists, associations representing specific content areas, and other agencies all speak

in different and often inconsistent voices…The U.S. does not have a coherent system for deciding on and articulating curriculum and instruction." ***(Phi Delta Kappan***, March 1990, p. 522

Peter M. Senge: "From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole." ***The Fifth Discipline***, Currency Doubleday 1990, p.3

Theodore Sizer: "The fact is that there is virtually no federal-level talk about intellectual coherence. The curricular suggestions and mandates leave the traditional 'subjects' in virtually total isolation, and both the old and most of the new assessment systems blindly continue to tolerate a profound separation of subject matters, accepting them as conventionally defined… The crucial, culminating task of ***making sense of it all***, at some rigorous standard, is left entirely to [the student]." School Reform and the Feds: The Perspective from Sam. ***Planning and Changing***, v22 n3-4 p248-52 1991

Thomas Merton: "The world itself is no problem, but we are a problem to ourselves because we are alienated from ourselves, and this alienation is due precisely to an inveterate habit of division by which we break reality into pieces and then wonder why, after we have manipulated the pieces until they fall apart, we find ourselves out of touch with life, with reality, with the world, and most of all with ourselves." ***Contemplation in a World of Action***, Paulist Press, 1992, p.153)

David W. Orr: [Formal schooling] "…imprints a disciplinary template onto impressionable minds and with it the belief that the world really is as disconnected as the divisions, disciplines, and subdivisions of the typical curriculum. Students come to believe that there is such a thing as politics separate from ecology or that economics has nothing to do with physics." ***Earth in Mind***, Island Press, 1994, p.23

The Common Core State Standards, high-stakes testing, school choice, vouchers, value-added measurement, replacing public schools with charters, abolishing teacher tenure, busting unions, winning international competitions, instilling grit, increasing rigor, putting mayors in charge, grading schools, adopting new technology, flipping classrooms, increasing funding, going back to basics, firing the worst teachers, (your favorite silver bullet here _____) –none of those will do what needs doing.

Schools are in the knowledge business. Not until curricula respect the holistic, systemic nature of knowledge will they begin to meet their responsibility. Deal successfully with the problem, and the schooling that emerges will be so illuminating, so powerful, so relevant, so useful, so satisfying, so easily taught and learned, it will change everyone it touches.

Note: A free e-book (http://www.marionbrady.com/documents/WWL.pdf) on the subject explores the problem. A free adolescent-friendly course of study (http://www.marionbrady.com/IntroductiontoSystems.asp) illustrates a solution. Ω

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted January 12, 2015:

One thing schools should do to boost students' intellectual growth

America's schools aren't going to significantly improve until a main reason for their flat performance is correctly diagnosed and addressed.

The problem isn't teacher incompetence. Neither is it poor subject-matter standards, too-short school days or years, kids' lack of grit, inadequate teacher training programs, failure to unleash market forces, union protection of bad teachers, insufficient academic rigor, or any of the other reasons currently being advanced.

Much that affects learner performance—poverty, disability, education of parents, local culture, and so on—can't be fixed by education policy. A fundamental performance-limiting problem that ***can*** be fixed in school but has never been adequately addressed is this: **Information overload**.

The human brain is wonderful. Nobody yet knows the extent of its potential. But about one of the brain's characteristics, there's not the slightest doubt: **It does a poor job of storing and retrieving what the traditional core curriculum gives it—random, unorganized information**. Every adult who has attended a typical secondary school knows that's true, but the core is treated as if Moses had brought it down from Mt. Sinai along with the Ten Commandments. (Actually, it emerged from a three-day meeting of 10 school administrators in 1892.)

That the information being dumped on millions of kids by the core curriculum is "learned" is a myth, a fiction, a very expensive joke.

SKEPTIC: You're not serious! Where's the proof?

MB (Me): The end-of-course testing ritual.

SKEPTIC: How does that prove that learning isn't happening?

MB: Learners prepare for the tests by cramming.

SKEPTIC: Cramming is what serious students do. It's a normal part of learning.

MB: No, it's a normal part of test-driven schooling, which has little to do with learning. Cramming of previously "covered" information isn't learned. It's shoved into short-term memory to meet a short-term goal—passing a test. When the test is over, the information is dumped.

SKEPTIC: Some of it will be remembered.

MB: That's the hope of those who subscribe to the discredited learning theory that if you throw enough mud on the wall, some of it is bound to stick. America is spending well over a half-trillion dollars a year on schooling. That "some of it will be remembered" isn't much of a return on that enormous investment. Even more alarming is the waste of learner time and intellectual potential, the costs of which are inestimable.

SKEPTIC: So what do you suggest?

MB: We need to face up to the information overload problem. It's not the ***amount*** of information the core unloads on kids—the brain can handle that, and much more. The problem is the core's lack of information organizers. Even if every subject in the core had a simple, workable memory-organizing system (and none of them does), it's unreasonable to expect kids to cope, ***simultaneously,*** with five or six ***different*** information-organizing systems.

SKEPTIC: I don't see an alternative.

MB: And neither will anyone else as long as the adequacy of the core is taken for granted. What learners must have in their heads if they're to cope with the knowledge explosion is an information organizer that makes everything they know part of a ***single, simple, easily used structure of knowledge.*** Logic, not undependable memory, is the best tool for retrieving what's in our heads.

SKEPTIC: How is that possible? The kinds of information the core subjects cover is just too different and too specialized to be stored and accessed by just one organizer.

MB: Thousands of years before the academic disciplines and the school subjects based on them became the organizers of schooling, humans were creating complex civilizations, dreaming up sophisticated theories and philosophies, completing vast engineering projects, building still-standing monuments. Could they have done that without organized thought? No.

SKEPTIC: Well, they might not have given names like “biology,” “geography,” “chemistry,” “economics,” and so on to specialized knowledge, but they were specializations just the same.

MB: True. But those specializations morphed out of organized general knowledge.

SKEPTIC: General knowledge doesn’t have organizers.

MB: Of course it has organizers. If it didn’t, it wouldn’t be knowledge, just random information. Organized information—knowledge—is fundamental to humanness, survival, civil society, routine functioning.

SKEPTIC: And those organizers are…?

MB: The ones I’ve been pointing out for decades, the ones everyone uses all the time, the ones ignored by policymakers. The basic organizers of all knowledge—general and specialized—are the five elements of our best models of reality—stories and drama. We create stories, plays, ***and common sense*** by locating experiences in time and space, identifying the participating actors, describing what happened or is happening, noting, insofar as possible, the states of mind of the actors, then weaving the five together systemically. That’s five kinds of information—time, place, actors, plot, action—systemically integrated. Or, to put it even more simply—when, where, who, what, why—systemically integrated.

SKEPTIC: That’s too simple to be useful.

MB: Simple, yes, but only at the most general level, which it needs to be to provide initial access to everything stored in memory. Think of the five elements as the brain’s interstate highways, connecting to state roads (history, geography, government, etc.) which connect to county roads (time lines, topography, democracy, etc.) Everything connected to everything, on a single map.

For example, my morning paper tells me that Israel’s Supreme Court has ordered the government to demolish the West Bank Settlement of Amona because it was built on privately owned Palestinian land. Kids coming to that news item “cold” wouldn’t be able to make adequate sense of it. Kids bringing the five organizers to the news item wouldn’t be able to make good sense of it either, but they’d know what they needed to find out. The news item tells them who, when, where, and what, but says nothing about the fifth element, the “why” that explains Palestinian and Israeli actors’ actions. Knowing what they didn’t know, kids would start down the “why” road searching for Palestinian and Israeli actors’ values, beliefs, world views. Eventually, they’d learn that Palestinians think the land belongs to them because it’s been in their families for many generations, and some Israeli settlers think the land belongs to them because “we were here first.”

If, before subjecting adolescents to the intricacies of specialized studies, they’re given activities that help them conclude, ***for themselves,*** how their brains select, sort,

store, relate, integrate, and manipulate existing information and create new information, their intellectual performance will easily surpass that of every previous generation.

Don't tell me I'm exaggerating the benefits of helping adolescents understand how they process information. Thousands of hours of working directly with them, reading their journals, listening as they generate explanatory hypotheses, postulate causal sequences, invent graphic representations of complex relationships, interpret unfamiliar data from other cultures, and much, much else, tell me I'm right.

Formal, deliberate use of the five-element information organizer we routinely use except in school would give us something we don't now have—a true general education academic discipline. Not only could that discipline replace thus-far failed attempts to create coherent curricula using various mixes of specialized studies, it would radically enhance memory, make clear the holistic nature of knowledge, lay a solid foundation for life-long learning, stretch learners' minds in ways the core will never be able to do, make apparent the importance of fields of study and ways of learning shoved aside by reading and math test prep, expose the superficiality of instruction limited by what commercial publishers produce—just to start a list of the benefits of a curriculum that respects the systemic nature of knowledge.

A true general education discipline can do all that and more, and do it better and quicker. Its efficiency would give magnet schools more time to focus on their specializations. Project-based schools could undertake more complex projects. Art, music, dance, drama, and other electives sacrificed to test-based "reform" could be reinstalled and expanded. Highly specialized classes could be offered. Learners could undertake field work and apprenticeships. And teachers could plan together, exploiting the richness of a curriculum that aligns and integrates their specializations.

Skepticism is acceptable. Rejection without a trial, isn't.

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An illustrative **general** education course of study for adolescents: http://www.marionbrady.com/IntroductiontoSystems.asp **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted March 1, 2015:

The Important things standardized tests don't measure

As my students were taking their seats, Myrna, sitting near my desk, said she'd just read a magazine article about secret societies in high school. What, she asked, did I know about them?

I knew nothing—had never even heard of them—but the matter was interesting enough to quickly engage my 11th Grade English class, so I let the conversation continue. Someone suggested making it a research project and I told them to have at it.

The school library wasn't much help, but somebody figured out how to contact the student editor of the school newspaper in a town mentioned in the article and wrote her a letter. She answered, other contacts were made, and kid-to-kid communication began. How did the societies get started? Who joined them? Why? How? Did they create problems? If so, what kind? Were the societies more than just temporary cliques? How were teachers and administrators reacting?

Answers generated more questions. My students thought, wrote, took sides, argued, learned. I mostly watched.

That happened in a class in a semi-rural high school in northeastern Ohio. The participants—those still alive—are now almost eighty years old. I'd be willing to bet that if any of them remember anything at all about the class, that research project would be it.

I wasn't smart enough to realize it at the time, but I was seeing a demonstration of something extremely important, that real learning is natural and inherently satisfying. Myrna's question kicked off genuine learning—self-propelled and successful not because the work was rigorous and the kids had grit, but because it was driven by curiosity, because satisfaction was immediate, because it was real-world rather than theoretical, because it was concrete rather than abstract, because it required initiative and action, and because it was genuinely important, dealing as it did with complex social and psychological issues shaping human behavior.

Even if it leads to dead ends, research—at least for the learner pursuing it—is intellectually productive. It's also, obviously, non-standard. The skills it develops and the insights it yields aren't predictable, even to those engaged in it. That's one of the reasons standardized tests assembled in the office cubicles of Pearson, McGraw-Hill and other test manufacturers can't do the job that most needs doing. They can't measure and attach a meaningful number to the quality of original thought.

Arthur Costa, Emeritus Professor, California State University, summed up the thrust of current test-based "reform' madness:

> "What was educationally significant and hard to measure has been replaced by what is educationally insignificant and easy to measure. So now we measure how well we taught what isn't worth learning."

The truth of that isn't acknowledged by Jeb Bush, Bill Gates, Lou Gerstner, Arne Duncan and the other business leaders and politicians responsible for initiating and perpetuating the standardized, high-stakes testing craziness. They either can't see or won't admit the shallowness of their claim that "if you can't measure it, you can't manage it." Challenged, they dismiss those who disagree with them as defenders of the status quo.

Using the scores on standardized tests to shape the life chances of kids, determine the pay and reputations of teachers, gauge the quality of school administrators, establish the worth of neighborhood schools, or as an excuse to hand public schools over to private, profit-taking corporations is, at the very least, irresponsible. If, as it appears, it's a sneaky scheme to privatize America's public schools without broad public dialogue, it's unethical.

Figuring out how to measure original thought isn't the only challenge test manufacturers need to address. Their tests:

- Provide minimal to no useful feedback to classroom teachers
- Are keyed to a deeply flawed curriculum adopted in 1893
- Lead to neglect of physical conditioning, music, art, and other, non-verbal ways of learning
- Unfairly advantage those who can afford test prep
- Hide problems created by margin-of-error computations in scoring
- Penalize test-takers who think in non-standard ways (which the young frequently do)
- Radically limit teacher ability to adapt to learner differences
- Give control of the curriculum to test manufacturers
- Encourage use of threats, bribes, and other extrinsic motivators
- Use arbitrary, subjectively-set pass-fail cut scores
- Produce scores which can be (and sometimes are) manipulated for political purposes
- Assume that what the young will need to know in the future is already known
- Emphasize minimum achievement to the neglect of maximum performance
- Create unreasonable pressures to cheat
- Reduce teacher creativity and the appeal of teaching as a profession

- Are unavoidably biased by social-class, ethnic, regional, and other cultural differences
- Lessen concern for and use of continuous evaluation
- Have no "success in life" predictive power
- Unfairly channel instructional resources to learners at or near the pass-fail "cut score"
- Are open to massive scoring errors with life-changing consequences
- Are at odds with deep-seated American values about individuality and worth
- Create unnecessary stress and negative attitudes toward learning
- Perpetuate the artificial compartmentalization of knowledge by field
- Channel increasing amounts of tax money into corporate coffers instead of classrooms
- Waste the vast, creative potential of human variability
- Block instructional innovations that can't be evaluated by machine
- Unduly reward mere ability to retrieve secondhand information from memory
- Subtract from available instructional time
- Lend themselves to "gaming"—use of strategies to improve the success-rate of guessing
- Make time—a parameter largely unrelated to ability—a factor in scoring
- Create test fatigue, aversion, and an eventual refusal to take tests seriously
- Undermine the fact that those closest to the work are best-positioned to evaluate it
- Don't work. The National Academy of Sciences, 2011 report to Congress: The use of standardized tests "has not increased student achievement."

Most people—including many educators—don't object to standardized tests, just think there are too many, or the stakes shouldn't be so high, or that some items aren't grade-level appropriate, etc.

I disagree. I think standardized tests aren't just a monumental waste of money and time, but are destroying the institution and the profession in myriad unsuspected ways.

Responsibility for evaluating learner performance—all of it—should be returned to those best positioned to do it: Classroom teachers. Period. **Ω**

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Note: This is the original version submitted for publication; minor editing changes (paragraph 5) were made in the published version. MB

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted April 7, 2015:

Why the conventional wisdom on schooling is all wrong

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 left-hand 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 heavy-lift 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 slideshows 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 Internet's 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

Alternet, Posted July 20, 2015 (http://www.alternet.org/education):

What Bill Gates Doesn't Understand About Education

Mr. Gates:

Walking past the TV in the kitchen several weeks ago, I caught enough of your May 4 appearance on CNBC to hear you say that of all the Gates Foundation's work, education was the most difficult, the most resistant to change.

I share your frustration. Over the last hundred or so years, the rate of progress in medicine, engineering and other fields has been nothing short of phenomenal, while education doesn't look much different than it did when my parents enrolled me in kindergarten in the fall of 1932.

There are a lot of reasons for poor academic performance. I'd like to think you don't share the myth that good teachers can cancel out the negative effects of poor prenatal care, early language deprivation, family instability, unaddressed sight and hearing problems, chronic hunger, mercury and lead ingestion, psychological stress, limited personal experience, and so on. I'd also like to think you don't assume that merely "raising the bar" via tougher subject-matter standards and high-stakes tests will unleash previously neglected learner potential.

But your small schools initiative, teacher research and push for the Common Core State Standards suggest you think (or at least hope) that in the drive to improve learner performance, "one particular thing" could be done that would make a real difference in the quality of American education.

I believe there is something that could be done— one thing, among others, that could make a radical difference where it matters most: in kids' heads. The idea came to me in 1964, not long after I was recruited by Florida State University to teach in their school of education. I'll get to the idea in a moment.

The 1960s were an exciting time for those in education. Fears that Russia was out-educating America in science and technology loosened government purse strings. Federally financed regional education laboratories were created to promote education research and development. University faculties designed all kinds of new teaching programs and hands-on instructional materials for elementary and secondary schools, and commercial publishers marketed them. Enough fresh thinking emerged to propel the institution far into the future.

And then it stopped. Dead. We reformers had screwed up. Teachers hadn't been trained to use the new materials and methods. Administrators hadn't been brought along, so they weren't supportive. Parents weren't happy about unfamiliar-looking

homework. Activity-based textbooks (two of which my brother and I had written for Prentice-Hall, Inc.) didn't sell well. Conspiracy theorists thought reformers were socialists or communists, and said so loudly. School board members got nervous. The education pendulum swung from the future to the past. Hard.

I learned from that experience. Now, trying to move the institution, I work bottom up, an effort, incidentally, made much harder by the "standards and accountability" reforms you've spent several billions promoting. (Few teachers are free to step off the approved Common Core State Standards path.) Notwithstanding that handicap, the instructional activities and supporting materials my brother and I write and give away are being downloaded from my website at an average 650 items per week.

But about that concern you and I share—decades of near-flat institutional performance. You think it's primarily a people problem—too many teachers aren't up to the challenge, and too many kids lack the self-discipline necessary to do what's expected of them.

Your cure: For the institution, competition via market forces—vouchers, charters, school grading, rewards, penalties, school closings, and other privatizing strategies. For teachers, advice in the form of conclusions from the research you've funded about what makes a teacher effective. For kids, rigor or grit, primarily in the form of preparation for standardized tests that officials deliberately make harder and harder because they blame poor performance on the "soft bigotry of low expectations."

I'm impressed by your willingness to put major money where your mouth is, but I think you've misdiagnosed the problem. I say flat performance isn't a people problem, it's a system problem — and that system is the core curriculum adopted in 1893. Since you picked up much of the tab for reinforcing that curriculum with the Common Core State Standards, you obviously take its adequacy for granted.

Decades of classroom experience tell me that's a mistake. The curriculum that shapes the education of just about everyone suffers from many serious problems. Let me try to explain one—one that back in the '60s many of us realized was critically important but now is ignored.

An analogy may help. Think of kids' memories as phone books, and the entries as information. For the book to work well, the entries need a) to include every name that might be called; and b) be accurate.

No argument there, right? It's what educators have always tried to do—cover the material, and get it right. But a half-century ago we concluded that wasn't enough. The learner's "phone book" could list every name and number, and be absolutely accurate, but if the name appeared in random rather than alphabetical order, the book would be all but useless.

Useful information is organized information. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted August 26, 2015:

This could change everything about school — for kids, teachers and everybody else

By Marion and Howard Brady

Learning is challenging. Kids need to accept that life is a test and grit is essential to success. Competition builds character. A quiet school is a good school. Recess and leisurely lunchtimes are poor uses of valuable instructional time. Kindergarten should be the new first grade. Poverty is no excuse for poor performance. Retention in grade for under-performing kids just makes good sense. The root cause of academic decline is teachers' low expectations. Rigor is the key to winning the Race to the Top.

So goes the conventional wisdom. Saying that learning is natural, that stress is counterproductive, that free play and the so-called "frill" subjects teach in powerful ways, that standardized tests are counterproductive, invites heated argument. To say that present corporately driven education policies have been a monumental waste of time, money, and talent invites being dismissed by those setting education policy as too out of touch with reality to deserve continued reading.

But hear us out. That first paragraph reflects a Puritanical view of human nature that, historically, Americans have tended to favor. No surprise then that those leading the "reform" effort believe the "test and punish, standards-and-accountability," approach to schooling is a good, even a necessary, thing.

We start with a different assumption—that ***true*** learning is natural, deeply satisfying, and is its own reward. As evidence, we call attention to the fact that healthy kids start learning on their own as soon as they're born, and continue at a spectacular rate long before they see the inside of a classroom. Not until they go to school and begin to be hammered with information of the "What Every First Grader (etc.) Should Know" sort, does their enthusiasm for learning begin to fade.

What is it about formal schooling that turns so many kids off? It may come as a surprise that the major problem is ***a lack of mental stimulation***. Some of the work is too easy, some of it is simply neither interesting nor useful, and recently, much of what's being touted as rigorous is merely onerous.

Blame most of kids' negativity about school on lessons and homework that aren't memorable, mind-changing experiences.

Three lesson essentials

In school, instructional activities—lessons—are where the rubber meets the road. That means (at least to us) that every lesson should make something important and memorable happen in kids' heads. How little most adults remember and use of what they once supposedly learned suggests that relatively little of their schoolwork actually did that.

Lessons that stick and make a permanent difference in the mind usually share three characteristics.

First, they're "active." What makes "active learning" lessons active is the role assigned to learners. Traditional lessons treat them as passive receptacles of secondhand information. Active learning gives them intellectually demanding, real-world puzzles, problems, anomalies, situations, difficulties, and so on, and learning comes not secondhand from reading or listening, but firsthand, from ***doing***, from wrestling with the puzzle, the problem, the difficulty, ***for however long it takes.***

For…however…long…it…takes. Yes, compared with "covering the material," puzzle-solving is slow going. But learning is an extremely complex, little-understood process that can't be hurried or forced. It moves at the learner's pace or it doesn't move. Period. Authorities who mandate pacing guides, give teachers scripts to read, or demand that lesson plans be submitted days in advance of use, should be in a line of work other than education.

Second, the most memorable lessons focus on immediate reality. For learning to be ***permanent***, the puzzles must be interesting ***now***; the lessons they teach must be useful ***now.***

The richest "textbook" isn't a textbook; it's the present moment. With few exceptions, every important idea taught in every school subject manifests itself in some concrete, instructionally useful, "hands on" form on school property or within walking distance. It's all there, just a matter of going to where it is and staring at it until familiarity's veil lifts and it becomes strange enough to see.

Study of immediate reality does something else of vital importance in learning—it triggers emotion. Love it or hate it, a kid's "right-here, right-now" ***matters***. And because it matters, it's unfailingly, indisputably relevant.

Third, the brain copes poorly with poorly organized information, which is what school subjects give it—information at odds with how the brain perceives reality, at odds with how sense is made of it, at odds with reality's holistic, systemic nature.

In the real world—the world that schooling is supposed to explain and explore—everything connects to everything. In the real world, politics, climate, economies, laws, transport, literature, health, belief systems, weapons, weather, humor, religion,

technology, entertainment, and so on and on and on, swirl together in dynamic, continuously changing, evolving, mind-boggling complexity.

The traditional core curriculum suffers from the problem pointed out by the ancient story of blind men examining an elephant. It pulls complexity apart and studies the parts as if they had little or nothing to do with each other. Separate-subject instruction sends kids on their way inadequately prepared for life, and it's sending America on its way seriously crippled by an inability to anticipate the consequences of technological change, policy initiatives, ideologies, and unexamined cultural assumptions.

A fix

Systems theory solves the information-organizing problem, and does so in a way easily understood by adolescents. It doesn't do away with school subjects, just makes them working parts of a much simpler "master information organizer"—the organizer they began using when they were born and continue to use non-stop. When kids understand how their minds sort, store, retrieve, integrate, and relate information, they know how to create knowledge—sometimes even wisdom. In a dynamic, evolving world facing an unknown but obviously very dangerous future, no other ability comes even close to that in importance.

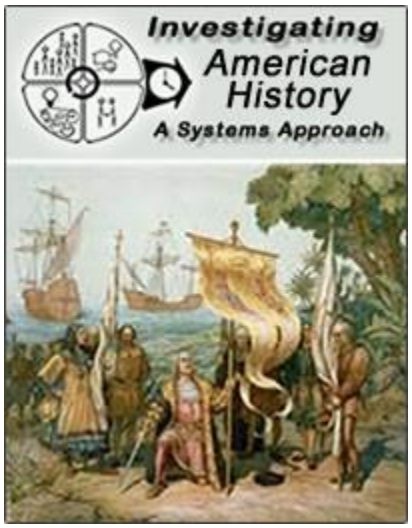
Operationalizing the fix

The decision in the late 19th Century to adopt the core curriculum has created a profession made up of specialists ill-equipped and disinclined to work together on the whole of which their specializations are parts. What the profession needs is what systems theory can give it—a shared, comprehensive, coherent conceptual framework for thinking about reality on a general level, and a vocabulary for talking about it.

Problems, Einstein said, can't be solved using the same kind of thinking that created them. Knowing that teachers will at first need a little help devising and making use of systems-based lessons, we wrote an illustrative, multidisciplinary course of study for kids and teachers titled ***Introduction to Systems*** (originally *Connections: Investigating Reality)*. Experimentation tells us it should be used the first year of secondary-level schooling, before kids are programmed to assume that school subjects are the best or even the only way to organize knowledge.

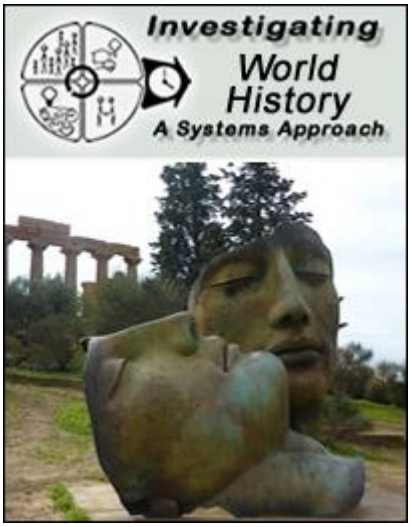
A first of its kind, *Introduction to Systems* is far from polished, so in the spirit of open-source, we give it away, along with provision for users to connect electronically and work together to improve its active-learning activities.

We had intended to leave it at that and get on with our retirements, but inserting a new course into a massive, rigid bureaucracy proving all but impossible, we decided to use material left over from a project we'd done for Prentice-Hall, Inc., to write a course less likely to meet resistance. We put ***Investigating American History: A Systems Approach***, online alongside ***Introduction to Systems***, and invited criticism and suggestions for improvement**.**



This spring we got an e-mail from a young teacher in western Argentina, Ignacio Carrel. He'd translated some of the American history material into Spanish and, notwithstanding his students' unfamiliarity with the content, he said his hard-to-teach alternative school students were suddenly easy to teach. So convinced was he of the effectiveness of systems theory as an information organizer, he was using it to write an ancient history course.

Howard, willing to help, began building and expanding on what Ignacio had done. The project, *Investigating World History: A Systems Approach*, is underway. It's not yet complete,[8] but is far enough along to allow its use and invite feedback for improvement. Like *Introduction to Systems* and the American history course, it's free for the downloading.



Classroom teachers collaborating—not commercial publishers, not special interest groups, not corporations, not federal or state departments of education, not Congress, state legislatures, foundations, or think tanks—should be writing curricula. No one else is better positioned. The fact that about 650 items a week are downloaded from our website (without a dime's worth of advertising and despite our relative anonymity) says teachers are talking to other teachers.

We're convinced that systems theory is the key to creating a general education curriculum free of the core curriculum's major problems. And we're dead certain—based on extensive classroom experimentation—that helping kids lift into consciousness and use their already-known systemically integrated information organizer moves them, in just a few weeks, to performance levels not otherwise possible.

[8] Completed October 2016.

Bonuses of educator-led change: Taxpayers save billions on the cost of textbooks and tests. Textbook publishers and test manufacturers stop being the tail wagging the curriculum dog. Business leaders and politicians finally have to accept that learning—real, mind-changing learning—has almost nothing in common with manufacturing and marketing. If kids' minds function as well as they can and should, it might even be possible for America to survive its superficial commitment to educating.

The present multi-million dollar push to close the achievement gap has focused on what teachers do. What matters far more is what kids do. If we'll give them what they want—genuine intellectual stimulation—America's schools will eventually dazzle the world.

We'll know we're on the right track when it becomes obvious that what's going on in kids' heads is far too idiosyncratic, too multi-faceted, too complex, too important, too wonderful, to be evaluated by ACT, SAT, the NAEP, or any standardized test. **Ω**

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1. A quick summary of fundamental problems with the core curriculum.
2. A multidisciplinary course of study for middle and high school levels introducing teachers and learners to systems-based learning.
3. *Investigating World History: A Systems Approach*. http://www.marionbrady.com/WorldHistory.asp.
4. *Investigating American History: A Systems Approach*. http://www.marionbrady.com/AHH.asp.
5. A small book explaining how we got where we are in education, and how systems theory can take us where we need to go: http://www.marionbrady.com/documents/WWL.pdf.

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted October 22, 2015:

A big problem with the Common Core that keeps getting ignored

The role of the Common Core State Standards in attempting to improve schooling has prompted countless editorials, op-eds, and letters to editors. Opinion about them has split political parties, faculties, and friendships, and even created an unusual progressive-conservative alliance in opposition.

Defenders of the standards have had considerable success convincing the public that those who reject them do so because they oppose education reform, are poorly informed, are under union thumbs, or don't want to face the fact that their kids aren't as smart as they thought they were.

I oppose the standards, and none of those apply to me.

My primary concern isn't with the quality of the standards themselves. I don't like how they were created and rammed into place, but what's done is done. I think they're part of an elaborate ideology-driven scheme to privatize public schooling, but that fad will probably have to run its course. It's appalling that the life chances of millions of kids and their teachers hinge on the scores of tests that can't evaluate original thought, but that will continue as long as most people think "educating" means "delivering information."

I oppose the Common Core State Standards primarily for a thus-far ignored consequence of their adoption.

My objection begins with the superficiality of the standards' stated aim—to prepare the young "for college and careers." The bottom-line reason societies educate their young isn't to support the world of work, a particular economic system, or the educational status quo. As H.G. Wells pointed out, civilization is a race between education and catastrophe. Societies—at least the thoughtful ones—educate to survive.

Change—environmental, demographic, technological, institutional, and so on—is inevitable, continuous, and unpredictable. To survive, societies must either control changes or adapt to them, both of which require new knowledge. New knowledge is created by the discovery of relationships between parts of reality not previously thought to be related. For example, as infants, we discover a relationship between crying and getting attention. Most adults discover a relationship between personal autonomy and job satisfaction. Societies discover (or don't) a relationship between differing societal cognitive systems and misunderstanding and conflict.

Maximizing the relationship discovery process—not mentally storing secondhand information—is Education Job One.

Reality is complex, which makes the 1893 core curriculum appealing. Specialized study—breaking knowledge apart and creating a school subject to study each part—has a long and impressive history of yielding benefits. But ignoring reality's holistic, systemically integrated nature and the seamless way our minds make sense of it comes at a huge, even deadly cost. We're poorly equipped to make sense of the big picture, the trends of the era, and the unintended consequences of our actions because ***we literally can't imagine possible, probable, and preferable futures.***

We can't imagine alternative futures because they're products of complex dynamic, systemic interactions, and a curriculum that compartmentalizes knowledge—as the core curriculum does—blocks the basic relating process that imagining requires.

The Common Core State Standards didn't just stop the effort in the 1980s to explore the knowledge-integrating potential of General Systems Theory as it developed during World War II. It locked the fragmented 1893 curriculum—the curriculum I believe is the major reason academic performance has flat-lined for decades—in even more rigid place.

If we care about the future, the core curriculum can't take us where we need to go. Don't take my word for it. I'm merely saying what well-known and respected scholars have been saying for many years.

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Note: My email address is mbrady2222@gmail.com. I invite criticism, dialogue, and inspection of a course of study my brother and I have assembled for adolescents to help them build (with a little teacher help) a comprehensive, systemically integrated mental model of reality. It's simple, but it can't be taught in the usual sense of the word—as "delivered information." To be adequately understood and become a permanent tool for making sense and creating new knowledge, ***each learner has to build a mental model of reality for herself or himself.*** The course is free, and can be downloaded at http://www.marionbrady.com/IntroductiontoSystems.asp.

For those unable or unwilling to abandon the comfort of traditional school subjects, here are links to two familiar ones—American history and world history—that use systems theory as the basic organizer. They're also free, along with provision for users to communicate to improve them. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted January 7, 2015:

Education reform: A primer for pundits and politicians

When, about 30 years ago, corporate interests began their highly organized, well-funded effort to privatize public education, you wouldn't have read or heard about it. They didn't want to trigger the debate that such a radical change in an important institution warranted.

If, like most pundits and politicians, you've supported that campaign, it's likely you've been snookered. Here's a quick overview of the snookering process.

The pitch

Talking Points: (a) Standardized testing proves America's schools are poor. (b) Other countries are eating our lunch. (c) Teachers deserve most of the blame. (d) The lazy ones need to be forced out by performance evaluations. (e) The dumb ones need scripts to read or "canned standards" telling them exactly what to teach. (f) The experienced ones are too set in their ways to change and should be replaced by fresh Five-Week-Wonders from Teach for America. (Bonus: Replacing experienced teachers saves a ton of money.) (g) Public ("government") schools are a step down the slippery slope to socialism.

Tactics

Education establishment resistance to privatization is inevitable, so (a) avoid it as long as possible by blurring the lines between "public" and "private." (b) Push school choice, vouchers, tax write-offs, tax credits, school-business partnerships, profit-driven charter chains. (c) When resistance comes, crank up fear with the, "They're eating our lunch!" message. (d) Contribute generously to all potential resisters—academic publications, professional organizations, unions, and school support groups such as PTA. (e) Create fake "think tanks," give them impressive names, and have them do "research" supporting privatization. (f) Encourage investment in teacher-replacer technology—internet access, iPads, virtual schooling, MOOCS, etc. (e) Pressure state legislators to make life easier for profit-seeking charter chains by taking approval decisions away from local boards and giving them to easier-to-lobby state-level bureaucrats. (g) Elect the "right" people at all levels of government. (When they're campaigning, have them keep their privatizing agenda quiet.)

Weapon

If you'll read the fine-print disclaimers on high-stakes standardized tests, you'll see how grossly they're being misused, but they're the key to privatization. The general

public, easily impressed by numbers and mathematical razzle-dazzle, believes competition is the key to quality, so want quality quantified even though it can't be done. Machine-scored tests don't measure quality. They rank.

It's hard to rank unlike things so it's necessary to standardize. That's what the Common Core State Standards do. To get the job done quickly, Bill Gates picked up the tab, important politicians signed off on them, and teachers were handed them as a done deal.

The standards make testing and ranking a cinch. They also make making billions a cinch. Manufacturers can use the same questions for every state that has adopted the standards or facsimiles thereof.

If challenged, test fans often quote the late Dr. W. Edward Deming, the world-famous quality guru who showed Japanese companies how to build better stuff than anybody else. In his book, "The New Economics," Deming wrote, "If you can't measure it, you can't manage it."

Here's the whole sentence as he wrote it: "It is wrong to suppose that if you can't measure it, you can't manage it — a costly myth."

Operating the weapon

What's turned standardized testing into a privatizing juggernaut are pass-fail "cut scores" set by politicians. Saying kids need to be challenged, they set the cut score high enough to fail many (sometimes most) kids. When the scores are published, they point to the high failure rate to "prove" public schools can't do the job and should be closed or privatized. Clever, huh?

The privatizing machinery is in place. Left alone, it'll gradually privatize most, but not all, public schools. Those that serve the poorest, the sickest, the handicapped, the most troubled, the most expensive to educate—those will stay in what's left of the public schools.

Weapon malfunction

Look at standardized tests from the kids' perspective. Test items (a) measure recall of secondhand, standardized, delivered information, or (b) require a skill to be demonstrated, or (c) reward an ability to second-guess whoever wrote the test item. Because kids didn't ask for the information, because the skill they're being asked to demonstrate rarely has immediate practical use, and because they don't give a tinker's dam what the test-item writer thinks, they have zero emotional investment in what's being tested.

As every real teacher knows, no emotional involvement means no real learning. Period. What makes standardized tests look like they work is learner emotion, but it's emotion that doesn't have anything to do with learning. The ovals get penciled in to

avoid trouble, to please somebody, to get a grade, or to jump through a bureaucratic hoop to be eligible to jump through another bureaucratic hoop. When the pencil is laid down, what's tested, having no perceived value, automatically erases from memory.

Before you write…

If you want to avoid cranking out the usual amateurish drivel about standardized testing that appears in the op-eds, editorials, and syndicated columns of the mainstream media, ask yourself a few questions about the testing craze: (a) Should life-altering decisions hinge on the scores of commercially produced tests not open to public inspection? (b) How wise is it to only teach what machines can measure? (c) How fair is it to base any part of teacher pay on scores from tests that can't evaluate complex thought? (d) Are tests that have no "success in life" predictive power worth the damage they're doing?

Here's a longer list of problems you should think about before you write.

Perspective

America's schools have always struggled—an inevitable consequence, first, of a decision in 1893 to narrow and standardize the high school curriculum and emphasize college prep; second, from a powerful strain of individualism in our national character that eats away support for public institutions; third, from a really sorry system of institutional organization. Politicians, not educators, make education policy, basing it on the simplistic conventional wisdom that educating means "delivering information."

In fact, educating is the most complex and difficult of all professions. Done right, teaching is an attempt to help the young align their beliefs, values, and assumptions more closely with what's true and real, escape the bonds of ethnocentrism, explore the wonders and potential of humanness, and become skilled at using thought processes that make it possible to realize those aims.

Historically, out of the institution's dysfunctional organizational design came schools with lots of problems, but with one redeeming virtue. They were "loose." Teachers had enough autonomy to do their thing. So they did, and the kids that some of them coached brought America far more than its share of patents, scholarly papers, scientific advances, international awards, and honors.

Notwithstanding their serious problems, America's public schools were once the envy of the world. Now, educators around that world shake their heads in disbelief (or maybe cheer?) as we spend billions of dollars to standardize what once made America great—un-standardized thought.

A salvage operation is still (barely) possible, but not if politicians, prodded by pundits, continue to do what they've thus far steadfastly refused to do—listen to people who've actually worked with real students in real classrooms, and did so long enough and thoughtfully enough to know something about teaching. **Ω**

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Note: Marion Brady invites response, especially from those in positions of influence or authority who disagree with him. You can reach him here: mbrady2222@gmail.com.

(Title as published on "The Answer Sheet:" **A primer on the damaging movement to privatize public schools**)

ALTERNET Published on *Alternet* (http://www.alternet.org)
Home > http://www.alternet.org/education/perils-standardized-tests?akid=14488.1120003.hLh-0j&rd=1&src=newsletter1061045&t=8
August 1, 2016 (released 7-30):

One mother's story: How overemphasis on standardized tests caused her 9-year-old to try to hang himself

"...I received a note from my son's teacher telling me he'd failed the FCAT [Florida Comprehensive Assessment Test] by one point. The note said he'd have to take a reading class over the summer and retest...We weren't alarmed as he only had to score one more point to be promoted...

"...a few weeks later his teacher called. [My son] had failed the test, again by ONE point!

"...I didn't tell him, but the next day [he] told me he knew he'd failed because if he had passed we'd have been told by the school and be celebrating. I lied—told him it takes several days and we'd know soon, but he insisted he'd failed.

"It was dinner time. I called down the hall and asked what he wanted to drink with dinner. No response. I figured he was watching television in his room and hadn't heard. A few moments later I called again. Again, no response.

"I can't tell you what it was that came over me, just that it was a sick feeling. I threw the hot pads I had in my hands on the counter and ran down the hall to [his] room, banged on the door and called his name. No response. I threw the door open. There was my perfect, nine-year-old freckled son with a belt around his neck hanging from a post on his bunk bed. His eyes were blank, his lips blue, his face emotionless. I don't know how I had the strength to hoist him up and get the belt off but I did, then collapsed on the floor and held [him] as close to my heart as possible. There were no words. He didn't speak and for the life of me I couldn't either. I was physically unable to form words. I shook as I held him and felt his heart racing.

"I'd saved [him]! No, not really… I saved him physically, but mentally he was gone…The next 18 months were terrible. It took him six months to make eye contact with me. He secluded himself from friends and family. He didn't laugh for almost a year…"

Her son had to repeat the third grade. That happened five years ago, and she says the damage continues: "Currently, [he] could be driving with a learner's permit but he refuses. Why? Because 'eighth grade kids don't drive.' If new friends saw him they'd know he'd failed a grade… Retention is repetitive and lasts a lifetime. It's never far from his mind, just as seeing him blue and hanging from his bunk bed sticks in mine."

For years, this story was a family secret. A mutual acquaintance, knowing from my Knight-Ridder/Tribune columns that I had repeatedly attacked the Florida Comprehensive Assessment Test not just as a waste of time, money and human potential, but as child abuse, gave this mother my email address and suggested she write me. I met with the mother and child personally and can vouch for the fact that they do indeed exist.

If failing to reach the pass-fail cut score by just one point wasn't within every standardized test's margin of error; if research hadn't established that for the young, retention in grade is as traumatic as fear of going blind or of a parent dying; if standardized tests provided timely, useful feedback that helped teachers decide what to do next; if billions of dollars that America's chronically underfunded public schools need weren't being diverted to the standardized testing industry and charter promotion; if a generation of test-and-punish schooling had moved the performance needle even a little; if today's sneaky, corporately driven education "reform" effort wasn't driven by blind faith in market ideology and an attempt to privatize public schooling; if test manufacturers didn't publish guidelines for dealing with vomiting, pants-wetting and other evidences of test-taker trauma; if the Finns hadn't demonstrated conclusively that fear-free schools, cooperation rather than competition, free play, a recess every hour in elementary school, and that letting educators alone could produce world-class test-takers—if, if, if—then I might cut business leaders and politicians responsible for the America's current education train wreck a little slack.

But all of the above are demonstrably true. And yet we keep subjecting children to the same dangerous nonsense, year after year.

I've no doubt that at least some reformers sincerely believe that America's schools should be privatized, that educators are unduly attached to the status quo, that unions are a serious problem, and that teachers resist change and must be pressured to perform. I'm sure some are sincere in their belief that the Common Core State Standards actually identify core knowledge, that standardized tests can evaluate complex thought processes, that the reforms they're pushing, although painful, are essential and right, and that teachers can't be trusted to judge learner performance.

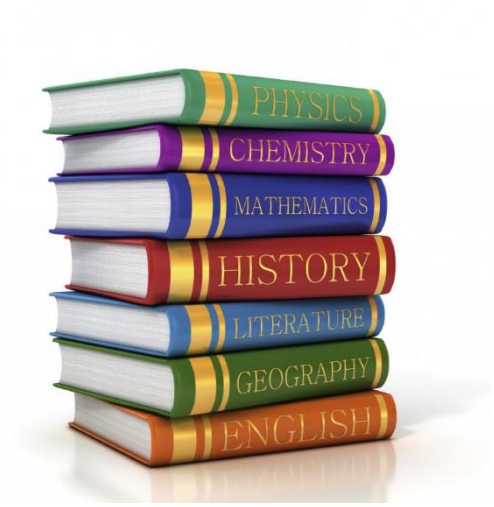
But willful ignorance from an unwillingness to talk to experienced educators is unacceptable.

Given the money and power behind current corporately driven education policy, few tools for resisting are available. Of those tools, refusal to go along is both the moral and most effective choice. Thoughtful, caring parents won't be bullied by test manufacturer propaganda or threats from those in Washington or state capitols who cling to the quaint notion that test-taking ability is a useful, marketable skill.

Parents, do the right thing for your children, your children's children, and America: Opt your kids out of standardized tests. Join the Network for Public Education, Save Our Schools. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted August 27, 2016:

Why school is a "confusing mental mish-mash" for kids



Marion Brady is a veteran educator who has long argued that public education needs a paradigm shift. Here is a new piece in which he explains why schools need a complete transformation in what and how students learn, and why the Common Core State Standards, standardized tests and other elements of corporate-influenced school reform can't accomplish this.

Brady says that "it frustrates him enormously" that so many high-profile politicians who consider themselves liberal and progressive are fans of the Common Core State Standards and of the high-stakes standardized tests the standards enable. He invites public responses to this post from the advocacy group Democrats for Education Reform and other organizations convinced of the adequacy of the Common Core State Standards. [VS]

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[Marion Brady] The federal and state education reform initiatives kicked off about a quarter-century ago by the *No Child Left Behind* legislation assume the following: that the institution itself is basically sound, that teachers bear major blame for poor school performance, that the Common Core State Standards tell teachers what to say and kids what to remember, that bringing market forces to bear will make them do it, and that high-stakes tests monitor what's important.

Those six assumptions shape American education policy, and they're all false. Today's reform initiative began with a wrong diagnosis of what ails the institution and, by its own measure — standardized testing — the initiative has failed. By all other measures, the initiative hasn't just failed, it has been an institution-destroying catastrophe.

Responding to public protest, Congress recently went through the motions of loosening its grip on schooling. But not understanding the problem, it refused to abandon the sixth assumption, that standardized tests measure what's important.

They don't because they can't.

Here's why

Consider, please, this paragraph:

> *We want a pair of socks. Those available are knitted in Third World countries. Power to run the knitting machines is supplied by burning fossil fuels. Burning fossil fuels contributes to global warming. Global warming alters weather patterns. Altered weather patterns trigger environmental catastrophes. Environmental catastrophes destroy infrastructure. Money spent for infrastructure replacement isn't available for health care. Declines in the quality of health care affect mortality rates.*

Buying socks is a matter of life and death. . Whether or not you think buying socks and mortality rates are connected; study the paragraph. It contains nine statements of fact—the kind of information kids are expected to remember long enough to pass tests.

But isolate the nine statements of fact from each other, or change the order in which they appear, and sense changes to nonsense. What makes the paragraph make sense aren't facts but *relationships, relationships between and among aspects of reality*.

Learners discover and deepen their understanding of such relationships by inferring, imagining, hypothesizing, predicting, sequencing, extrapolating, valuing, generalizing, and so on—*thought processes too complex and interwoven to be evaluated by standardized tests*.

Billions of dollars, trillions of hours, and intellectual potential beyond measure, are being wasted on tests that dumb kids down because they can't measure complex thought.

Blame the core curriculum. Think I'm wrong? The core is fundamentally flawed.

What's happening?

The core *curriculum* has major problems. The core *subjects* are important, but they're being dumped on kids many years too soon. Their number, specialized vocabularies, differing conceptual organizers, varying levels of abstractness, and their disconnectedness from each other and from life as kids live it, create a confusing mental mish-mash.

The ridiculous rate at which law and custom require the core courses to be "covered" adds to the confusion. Under enormous pressure, kids store enough information in short-term memory to make their elders think they've learned, but they've no intention of remembering it, and don't.

In matters of the mind, kids are expected to run before they've crawled or walked, and the Common Core State Standards make the mish-mash, information overload problem much worse. Specialized studies — which the core subjects are — should be offered no earlier than high school.

Crawling, walking

The solution to the problem could hardly be simpler. We're born "pre-wired" to make sense. Whatever we're thinking about we locate in space and time, identify participants, describe action, and assume or attribute cause for the action. In simpler language, *when we think about something, we seek—in sufficient detail to adequately communicate—answers to five questions: Who? What? When? Where? Why?*

Those are our *primary* information organizers. School subjects are *secondary* organizers, elaborating our primary organizers as necessary to make sense—not much to arrange to meet someone for coffee, more to complete a police report of a crime scene or describe a social problem, a great deal more to trace the causes of an international crisis or the trends of an era.

At least up through middle school the emphasis should be on mastering the basics of sense making—exploring in hundreds of different ways the systemic relationships of our five primary organizers of information. Ω

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Three illustrative how-to-do-it courses of study for middle school students:

- Improving the sense-making process: *Introduction to Systems*,
- Applying the process—American history: http://www.marionbrady.com/AHH.asp
- Applying the process—World history: http://www.marionbrady.com/WorldHistory.asp

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted December 9, 2016:

The most important thing schools don't do

Prepare; 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. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted March 15, 2017:

Why even the world's highest-scoring schools need to change

Betsy DeVos, the new U.S. secretary of education, has a theory. She agrees with former Florida governor Jeb Bush and other education "reformers" now shaping American education that what's wrong with America's schools has an easy fix: competition in the form of market forces — vouchers, merit pay, charter schools, etc.

DeVos is wrong. Dozens of variables — most of them beyond educator control — affect kids' ability to learn. Believing that market forces can erase the effects of those variables is magical thinking.

Albert Einstein, Buckminster Fuller, David Bohm, Alfred North Whitehead, Ernest Boyer, Harlan Cleveland, Arthur Koestler, Thomas Merton, Peter Senge, and many other internationally known and respected thinkers have a different theory about poor learner and school performance. If they're right, even the world's highest-scoring schools aren't serving learners well.

Here's why:

1. For efficient, productive thought, information must be mentally organized. The "core" curriculum now in near-universal use worldwide is a poor organizer of information. The thinkers mentioned above all believed that the core curriculum in use in schools since 1893 is fragmented, incoherent, artificial and disconnected from the reality it's supposed to explain to learners and help them explore.
2. Businesses, industries, the military, and other information-dependent entities don't use academic disciplines or school subjects to organize information. To cope with reality's inherent complexity, to more accurately model reality's systemically integrated nature, and to solve real-world problems, they use systems theoryt and systems thinking. These focus on looking at the whole of something by considering the connections among its parts and in relation to its environment.

The situation:

Tradition, institutional inertia, multi-layered bureaucracies, fear of change, textbook publishers, testing companies, uninformed politicians, and upside-down organization charts that put amateurs in charge of experts block educator acceptance of systems thinking as the primary organizer of school curricula. Unfortunately, no plan is in place to address these obstacles to meaningful change.

A way forward:

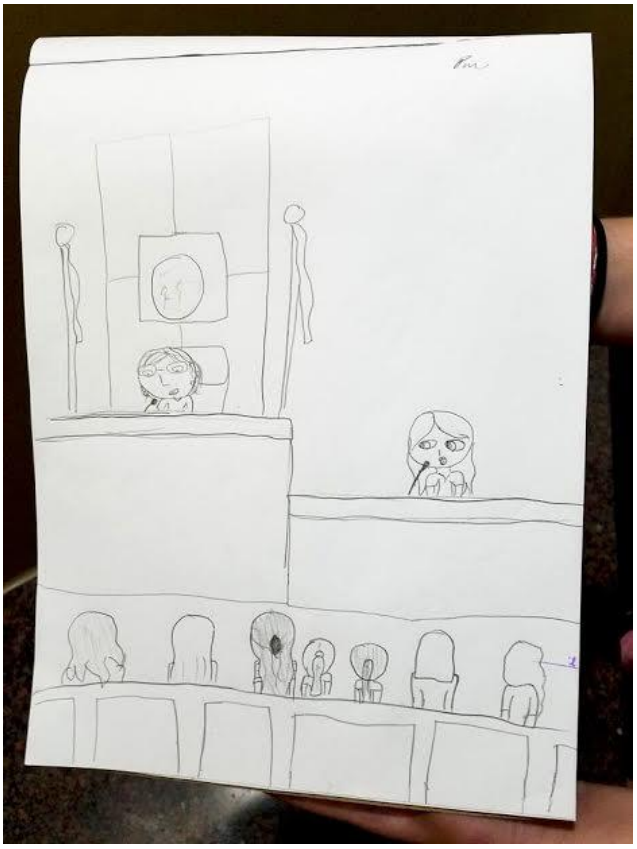
Lasting curricular change is bottom up and voluntary, propelled by the enthusiasm of kids and teachers. The optimum place and time to introduce systems thinking is at the middle-school level, using teacher teams working with small groups, and offering social science, language arts, and humanities credits. Introduce systems thinking to adolescents, and its merit will eventually lead to adoption at other levels of schooling.

Responsibility for evaluating learner performance must be returned to teachers. Commercially produced, standardized, machine scored tests can't attach meaningful numbers to complex or original thought, or access the quality of group dialogue and dynamics.

Here are links to an e-book — here and here — that makes the case for systems thinking as the major organizer of schooling, and four illustrative courses of study written for adolescents and older learners. In the spirit of "open source," all are free to educators who wish to use them—no money, no sign-up, no strings, no obligation. User suggestions for improving the activities can keep them current and continuously adapt them to inevitable social change and local needs. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted April 19, 2017:

34 problems with standardized tests



A picture of the scene in court on Aug. 12, where a judge heard a lawsuit by parents against education officials in Florida. This was drawn by Peyton Mears, an 11-year-old who was at the hearing to support the parents. The woman on the stand is a parent, Michelle Rhea.

By Valerie Strauss

In March I wrote about a decision by three justices on a Florida appeals court that said that a standardized reading test is the best way to decide whether third-graders should move to fourth grade — not actual school work or grades.

The case involves a Florida law that says that students who fail a third-grade language arts test can't move on to the fourth grade (though some exemptions are made). While the policy has not been shown to have a lasting benefit to students, Florida and other states maintain it anyway.

Some third-graders — including honors students — from a number of school districts were denied promotion because they opted out of the test. The parents of those students, who are part of a national testing opt-out movement, went to court and sued their districts. In August, Leon County Circuit Court Judge Karen Gievers ruled that those school districts that had refused to promote the students had been wrong. The case was appealed and the 1st District Court of Appeal overturned her ruling, saying:

The purpose of the ELA is to assess whether the student has a reading deficiency and needs additional reading instruction before (and after) being promoted to fourth grade. See § 1008.25(5)(a). The test can only achieve that laudable purpose if the student meaningfully takes part in the test by attempting to answer all of its questions to the best of the student's ability. Anything less is a disservice to the student — and the public.

That ruling ignored years of research that shows that high-stakes standardized test scores are not reliable or valid, and it ignored the problems Florida has had with its standardized testing accountability system, which became so severe that school superintendents statewide revolted in 2015 and said they had "lost confidence" in its accuracy.

Here's a look at all the things standardized tests can't do, by veteran Florida educator Marion Brady, who has written history and world cultures textbooks (Prentice-Hall), professional books, numerous nationally distributed columns (many are available here), and courses of study. His 2011 book, "What's Worth Learning," asks and answers this question: What knowledge is absolutely essential for every learner? His course of study for secondary-level students, called "Introduction to Systems," is free for downloading here. Brady's website is www.marionbrady.com. [VS]

[A Florida court decision about testing falls "on the side of stupid," critics say]

By Marion Brady

A Florida appeals court delivered a setback to the opt-out-of-high-stakes-testing movement with its March 7 ruling that standardized tests "can only achieve their laudable purpose" if all students "attempt to answer all questions to the best of their ability." Anything less, the judges said, "is a disservice to the student — and the public."

At its core the case is to ensure that third-graders are evaluated and passed on to fourth grade based on the entire year's body of work and the professional opinion of the teacher rather than having to repeat the third grade based on the results of a single test.

With financial support from the Opt Out Florida Network, the litigation continues. The plaintiffs are asking the Florida Supreme Court to rule.

The proceedings illustrate the legal profession's inability to get it right on matters having to do with teaching and learning. The appeals court's decision reflects the conventional wisdom that testing is a simple matter. Unacknowledged is the fact that educators have wrestled with the complexities of evaluating learner performance for generations without reaching firm conclusions.

For those involved in or contemplating legal action to try to slow or stop the damage being done by standardized testing, a list of some of its negative consequences may be useful.

Commercially produced machine-scored standardized tests:

1. Are unavoidably biased by social-class, ethnic, regional, and other cultural differences.
2. Unfairly advantage those who can afford test prep.
3. Radically limit teacher ability to adapt to learner differences.
4. Provide minimal to no useful feedback to classroom teachers.
5. Are keyed to the deeply flawed, knowledge-fragmenting "core" curriculum adopted in 1893.
6. Have led to the neglect of play, music, art and other nonverbal ways of learning.
7. Hide problems created by margin-of-error computations in scoring.
8. Penalize test-takers who think in nonstandard ways (which the young frequently do).
9. Give control of the curriculum to test manufacturers.
10. Encourage use of threats, bribes, and other extrinsic motivators to raise scores.
11. Assume that what the young will need to know in the future is already known.
12. Emphasize minimum achievement to the neglect of maximum performance.
13. Produce scores which can be — and sometimes are — manipulated for political purposes.
14. Create unreasonable pressures to cheat.
15. Use arbitrary, subjectively-set pass-fail cut scores.
16. Reduce teacher creativity and the appeal of teaching as a profession.
17. Lessen concern for and use of continuous evaluation.
18. Have no "success in life" predictive power.
19. Unfairly channel instructional resources to learners at or near the pass-fail cut score.
20. Are open to scoring errors with life-changing consequences.
21. Are at odds with deep-seated American values about individuality and worth.
22. Create unnecessary stress and negative attitudes toward schooling.
23. Perpetuate the artificial compartmentalization of knowledge by field.

24. Channel increasing amounts of tax money away from classrooms and into corporate coffers.
25. Waste the vast, creative potential of human variability.
26. Block instructional innovations that can't be evaluated by machine.
27. Unduly reward mere ability to retrieve secondhand information from memory.
28. Subtract from available instructional time.
29. Lend themselves to "gaming" — strategies to improve the success-rate of guessing.
30. Make time — a parameter largely unrelated to ability — a factor in scoring.
31. Create test fatigue, aversion, and eventual refusal to take tests seriously.
32. Hide poor quality test items behind secrecy walls.
33. Undermine a fundamental democratic principle that those closest to the work are best positioned to evaluate its quality.
34. According to the National Academy of Sciences report to Congress, don't increase student achievement.

At the most fundamental level, education policy shaped by standardized test scores is at odds with the deepest of all societal needs — human survival. Inevitable environmental, demographic, technological, institutional, and cognitive system changes require continuous adaptation. Adaptation requires new knowledge. New knowledge is generated by dozens of complex thought processes — hypothesizing, inferring, relating, valuing, imagining, and so on. And of those dozens of complex thought processes, only two — recalling, and applying — can be quantified and measured with sufficient precision to produce a meaningful number.

Schools and school systems that point with pride to their high scores on standardized tests are advertising their willingness to limit students' thought to a couple of low-level thought processes.

How can that be a good thing? **Ω**

Orlando Sentinel, June 23, 2017, editorial page.
Marion Brady, Guest Columnist:

Education or catastrophe? HB 7069 tips the balance

'Human history," said H.G. Wells, "is a race between education and catastrophe." Any day's news leaves no room for doubt that catastrophe has a commanding lead. Skeptics should take a look at the Florida Legislature's handiwork: House Bill 7069.

I'm not optimistic about the outcome of the race, at least not in America. For more than a century, the institution of public schools was reasonably effective. Bureaucratic rigidities and institutional inertia got in the way, but when classroom

doors closed, most teachers had enough autonomy to do their thing. The best of them figured out ways to capitalize on kids' abilities and interests, and out of that freedom came people who went on to lead the world in patents, Pulitzers, Nobels and other evidences of quality of thought.

When, a couple of decades ago, corporate interests took control of education policy, that small window of teacher freedom slammed shut. Lou Gerstner, Edward Rust Jr., Bill Gates, Jeb Bush, Mike Bloomberg, and other wealthy and influential individuals worked through the Business Roundtable, the U.S. Chamber of Commerce, Education Trust, Democrats for Education Reform, the American Legislative Exchange Council and other organizations to pressure Congress and state legislatures to buy into their theory. Whatever ailed the institution, they were certain, could be cured by bringing market forces to bear — choice, vouchers, business partnerships, tax-write-off schemes, pay for performance, privatization via charter chains, and so on.

HB 7069 is the latest offspring of their efforts, clear evidence of the drive to privatize Florida's public schools without the public debate such a radical action deserves. Its jumble of provisions simultaneously micromanage traditional schools and smooth the way for charters with public funds, assets, minimal oversight and protection from local control.

What's underway is a massive demonstration of the Dunning-Kruger Effect — individuals who don't know enough about educating to understand how little they know about it. Confucius said real knowledge is knowing the extent of one's ignorance. In "As You Like It," Shakespeare has Touchstone say, "The fool doth think he is wise, but the wise man knows himself to be a fool." Corporate reformers are convinced educating is easy, a mere matter — to use Bill Gates' words — of "delivering information."

In fact, nothing, *nothing humans try to do, is inherently more complicated than educating* — helping the young understand what's going on in their heads to maximize their ability to think clearly and productively about themselves and the world around them. Nothing equals it in complexity — not rocket science, not brain surgery, not anything. The market forces that Congress and state legislatures have imposed on America's public schools don't just fail to address educating's challenges; they're destructive, destroying the cultural coherence essential to school effectiveness.

The single most effective tool being used to undermine public confidence in public schooling is standardized, machine-scored testing. Because the pass-fail cut score is arbitrary, it can be raised or lowered to achieve a political end. Want to make public schools look bad? Raise the cut score enough to fail an alarming number of kids. Want to make a reform look successful? Simply lower the cut score.

Those with influence who advocate standardized testing, and those with authority who mandate or perpetuate it, should be required to satisfactorily answer a couple of questions and defend their answers.

One: Given the life-altering consequences of high-stakes standardized testing, is it not morally reprehensible and ethically indefensible to continue the use of standardized tests incapable of evaluating the relative merit of thought processes essential to human functioning, problem solving, and civilized life?

Two: Should not the use of all commercially manufactured, machine-scored standardized tests of learners and teachers be discontinued until test manufacturers demonstrate an ability to evaluate the relative quality of the complex thought processes upon which societal survival depend?

Public education has serious problems, a major one being its failure to rethink the dysfunctional core curriculum adopted in 1893. There will be no significant improvement in learner performance until problems being ignored by both the education establishment and reformers are satisfactorily addressed. **Ω**

Orlando Sentinel editorial page, September 7, 2017
Marion Brady, guest columnist

Pols must grasp why teachers oppose testing

Imagine the leadership of the Democratic and Republican parties concluding that failure to upgrade America's air traffic control system or to address surgical problems in America's hospital operating rooms had reached crisis stage. Imagine they called together the governors of the 50 states for a two-day summit to decide how best to proceed, but neither invited nor consulted airline pilots or surgeons about the issues.

In September 1989, 49 state governors met in Charlottesville, Virginia for the education summit that led to the present education "reform" campaign. No professional educators were invited.

The standards-and-accountability campaign they kicked off with No Child Left Behind hasn't just failed. It's been hijacked by ideologues and corporate interests convinced that the economist Milton Friedman was right when he argued in a 1955 paper that privatizing public schooling would harness market forces and improve school performance.

Myriad projects and experiments have demonstrated that Friedman was wrong. Profit-taking creates counterproductive institutional aims, a fact the general public seems to understand. Put to a vote, school vouchers, tax write-offs, and other devious schemes to publicly fund privately owned and managed schools almost always fail.

For school privatizers, public resistance is a problem. To counter that resistance, standardized tests have been put to work. Their arbitrary pass-fail cut scores are

routinely set high enough to fail enough test-takers to "prove" that public schools (to quote U.S. Secretary of Education Betsy DeVos), are "dead ends" needing to be replaced by charters.

Here's the main academic reason why standardized tests are counterproductive, and why experienced educators oppose their use:

Schooling's bottom-line purpose isn't to master the contents of school subjects but to improve learner ability to think clearly and productively—to abstract, adduce, analyze, anticipate, articulate, and so on. Thinking clearly and productively exercises dozens of thought processes, only two of which standardized tests are able to measure—learner ability to recall secondhand information, and apply it to a problem chosen by the writer of a test item.

All other thought processes—the processes that make humanness and civilized life possible—are too complex for standardized tests to evaluate. Is an ability to predict the likely eventual consequences of a year-to-year drop in the water table supplying a learner's hometown considered of value? What about an ability to see a relationship between the design of a particular neighborhood and citizen safety, or to imagine promising alternatives to the enforced, unnatural passivity of traditional schooling? Are those thought processes of value? If they are, using standardized tests that can't evaluate their relative quality must stop.

Conservatives and progressives, Democrats and Republicans, will surely agree that schooling's primary purpose is improving learner ability to think, from which it follows that policies that impose and perpetuate the use of commercially produced, machine-scored tests that can't measure complex, real-world thought are unacceptable.

Standardized testing isn't just a criminal waste of money, time and learner potential. It invites societal disaster. Thoughtful candidates who understand and explain this problem clearly—and who promise to try to end it—will attract votes. And, if those candidates discover that the testing stupidity is buried too deeply in bureaucracy or too protected by special interests to stop, they'll encourage and support opt-out movements to kill it by direct action—refusing to take the tests. **Ω**

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted September 29, 2017:

Here's a great way to get kids to learn. Unfortunately, too many schools don't do it.

When Mike Bloomberg, ex-mayor of New York, said he'd like to fire the lower-scoring half of the city's teachers and give their students to the better-scoring half, doubling the size of their classes but paying them twice as much, he was affirming his belief in a particular theory of learning.

For a short demonstration of the theory, watch this short, million-plus-viewed clip from the 1986 film, "Ferris Bueller's Day Off

The learning theory is called "direct instruction." *Teachers deliver information via talk, text, and technology; motivated learners try to remember it.*

For recipes, repair manuals, getting cash from ATMs, assembly guides for IKEA furniture and similar tasks, direct instruction isn't just efficient, it's essential.

But as is evident from how little most adults remember and use of what they once studied after learning basic skills, direct instruction is spectacularly inefficient.

If education policymakers would stop taking the adequacy of direct instruction for granted and give the matter serious thought, the reason most adults have so little to show for their years of schooling would be clearer — the curriculum in near universal use in America's schools since 1893.

Direct instruction delivers that curriculum to learners in volumes and at rates far beyond their ability to process it, store it in memory, and recall it. Much of the delivered information is abstract and, having little immediate use, is easily forgotten. The curriculum's failure to model the systemically integrated nature of knowledge complicates learning, and its marginal relationship to real-world matters of consequence and interest makes it easy for learners to dismiss it.

The problems aren't apparent because traditional schooling forces learners to pretend to learn, and many do so convincingly. Under pressure, they cram the secondhand information delivered by direct instruction into short-term memory long enough to recite and pass tests.

An alternative theory

With little success, experienced educators have tried to explain another theory of learning and encourage its use. I'm not smart enough to succeed where they've failed, so I won't try. I'll simply call attention to learning that's obviously more efficient than direct instruction.

We're born. On our own, without language, without books or teacher talk, without the ability to read, without homework, without drill, without learning standards, without standardized tests, without grades, without gold stars or smiley faces, without threats, rewards, promises, without chants or lesson plans, we learn to speak one, two, or even more languages, learn what's acceptable and unacceptable behavior in myriad social situations, learn important elementary laws of physics, learn to quantify as necessary, learn when and how to interact with, even manipulate, other humans, learn how to navigate any number of physical environments.

The theory that supports this kind of learning is called "active," "discovery," "inquiry," or "constructivism." It says we organize and assemble knowledge and skills from firsthand experience—from play, from watching and emulating parents and neighbors, from interacting with others, from trial and error, from "putting two and two together," from thinking about what we're doing while we're doing it.

An ancient observation sums up the theory: *Experience is the best teacher.*

Here's an example of the difference:

Direct Instruction (textbook text)

> *In much of the central and eastern United States, cold fronts recur every few days in late fall and winter. Sweeping down from Canada, the fronts move southeast, but the wind along the front blows from the southwest, parallel to the front. Initially, this wind will…*

Constructivist approach (team project)

> *Today's weather report says a cold front is due Thursday morning. Collect data—wind speed, wind direction, temperature, barometric pressure, cloud types, and other weather characteristics. Write a report with descriptions, graphs, photos, diagrams, etc.*

And another:

Direct Instruction (teacher talk)

> *Many Puritan ways of acting grew out of their religious beliefs. They thought all people were basically evil and would go to Hell unless they obeyed God's laws as presented in the Bible. To keep this evil tendency under control, Bible reading and church attendance were mandatory…"*

Constructivism (team project)

> *America has in part been shaped by Puritan thinking. Below is the alphabet as it was taught to Puritan children using the 1687 New England Primer. As you can see, large, bold-faced letters on each page were accompanied by a short verse, often based on the Bible. (E.g. "In **A**dam's fall, we sinned all.") Analyze the data.*

What seem to have been important Puritan beliefs? What attitudes and actions would those beliefs probably have created? Are the beliefs …?

Direct instruction delivers secondhand information. Standardized tests measure how much of that information learners can recall and (sometimes) apply to a matter chosen by the writer of the test item. Two thought processes — recalling and applying — are measured, a task so simple standardized tests can be scored by machines.

Today's "reformers" believe direct instruction can be made to work if teachers will teach to subject-matter standards and kids will try harder to remember what they've been taught.

Constructivist-triggered experience is firsthand, and sense is made not by two thought processes but by dozens in complex combinations— abstracting, categorizing, comparing, contrasting, correlating, describing, empathizing, envisioning, extrapolating, generalizing, hypothesizing, imagining, inferring, integrating, interpreting, intuiting, and so on.

Experienced teachers know the importance of these thought processes. They know the importance of questioning, of the give and take of learner dialogue with peers, of trial and error, of writing to clarify thought. They know the importance of pacing and of sequencing experiences to gradually increase levels of difficulty, of emotion in anchoring new knowledge in memory, and of collaboration as the easiest way to generate that emotion.

Experienced teachers also know that those dozens of thought processes are too varied, too idiosyncratic, too complex for direct instruction to improve them, and for standardized, machine-scored tests to evaluate learner ability to put them to useful work.

Constructivism is clearly the better theory of learning. In the 1960s, unusually thoughtful federal legislation encouraged its development and use, but reactionary, direct-instruction, standards-and-accountability legislation killed it and continues to block the theory's use.

What now?

How matters stand:

- The Common Core State Standards enable machine-scored standardized tests.
- Those tests produce scores.
- "Reformers" manipulate the scores to "prove" public schooling doesn't work.
- Teachers are blamed and denigrated and teaching is de-professionalized.
- Privatizers and politicians rush to the rescue: "Choice!" "Vouchers!" "Charters!"

- "Personalized learning"—direct instruction via computer terminal—is promoted.
- School taxes go down, along with citizen ability to think.
- Wall Street conservatives rejoice.

The weakest link in this cleverly engineered public-school-destroying chain is standardized testing.

Parents and citizens who care about America's future will support and encourage the opt-out-of-testing movement. Nothing less than mass refusal to participate will allow educators to explore learning that respects the potential of humanness.

***

The tens of thousands of downloads of constructivist-based activities my brother and I give away tell me that, given half a chance, constructivism sells itself, bottom up, by word of mouth. Below are links to a small book arguing the merits of experiential, project-based team learning, and four middle school level courses that bridge to it using familiar, bureaucratically comfortable school subjects. We think working teachers, freed from the destructive limitations of standardized tests, can, and will, improve our work.

All are free for the downloading—no strings, no sign-up, no advertising.

E-book, *What's Worth Learning?*
http://www.marionbrady.com/documents/WWL.pdf

Course of study, organizing knowledge
http://www.marionbrady.com/IntroductiontoSystems.asp

Course of study, American history
http://www.marionbrady.com/AHH.asp

Course of study, world history
http://www.marionbrady.com/WorldHistory.asp

Course of study, world cultures
http://www.marionbrady.com/InvestigatingWorldCultures.asp

Marion's piece passed along by Diane Ravitch's blog, October 16, 2017:

Test-Based Accountability is Dumbing Us Down

Old joke, also known by research scientists as "The Streetlight Effect."

A drunk is on hands and knees, under a streetlight, obviously searching.

Cop: *Lose something?*

Drunk: *Yeash. My keys.*

Cop joins hunt. No keys found.

Cop: *You sure you lost them here?*

Drunk*: No, I think I lost them across the street.*

Cop: *Then why are you looking here?*

Drunk: *The light's better.*

As the current, corporately engineered "standards and accountability" education reform fiasco makes clear, non-educators assume schooling's bottom-line purpose is to maximize learner understanding of the core curriculum.

So "core knowledge" gets taught and tested.

However, schooling's bottom-line purpose isn't to maximize learner understanding of the core curriculum, but to maximize learner ability to think—to abstract, adduce, analyze, anticipate, articulate, apply, categorize, compare, contrast, coordinate, correlate, describe, empathize, envision, extrapolate, imagine, infer, integrate, interpret, intuit—just to begin a much longer list.

So, why don't standardized tests test learner ability to think?

Because they can't. Of the dozens of identifiable thought processes, only two—recalling, and to a limited extent, applying—are simple enough to quantify and measure with sufficient precision to produce a meaningful number.

Inescapable conclusion: Today's test-based reforms are dumbing kids and country down.

Solution: Give responsibility for evaluating learner performance back to classroom teachers, along with classes small enough for them to listen to what kids say and read what they write. **Ω**

Marion Brady for *BuzzFlash* at *TruthOut*
Posted Tuesday, 17 October 2017:

A Question for Betsy DeVos

Worldwide, the rate of environmental, technological and demographic change is more rapid than it's ever been, and is accelerating. If we want to maintain our way of life, we must understand the changes, manage those that can be managed, and adapt to those that are beyond our control.

Because problems can't be solved using the same kind of thinking that created them, understanding, managing and adapting to change require an ability to think in new ways. In the 1960s, thoughtful federal education legislation and funding for research encouraged educators to think freshly, and new instructional materials in the physical and social sciences, and humanities began to appear that emphasized "learning by doing" rather than merely trying to remember secondhand, delivered information. The materials went by various labels -- "inquiry," "discovery," "active learning" and "constructivism."

Traditional schooling had emphasized a single thought process -- the ability to recall secondhand information delivered by textbook text and teacher talk. The new "inquiry" instructional materials required kids to use dozens of thought processes -- to analyze, categorize, infer, hypothesize, relate, synthesize, imagine, predict, sequence, extrapolate, value and so on.

Unfortunately, that departure from traditional expectations generated a "back-to-basics" backlash. Leaders of business and industry highjacked the backlash and used their clout with federal and state politicians to engineer a souped-up version of traditional schooling. No Child Left Behind, the Common Core State Standards, Race to the Top and high-stakes standardized tests, brought back traditional schooling's emphasis on learner ability to merely recall and (sometimes) apply existing information.

The business and industry-initiated reforms didn't just bring back an emphasis on memory work to the neglect of all other thought processes. Progress, today's policymakers say, has to be "measurable." Kids, teachers, administrators, schools and school systems must be sorted and ranked based on standardized test scores.

The "measurable" fad has made meaningful education reform impossible. The measuring is done by machine-scored standardized tests that can't evaluate complex thought, can only count correct or incorrect answers. Questions that appear to require thought are really guess-what-the-writer-of-the-test-item-was-thinking. That's a skill, but not a particularly useful one in the real world.

Today's test-based "reforms" are preparing the young for what was, rather than the world as it is and is becoming. That isn't just stupid, it's a recipe for societal disaster.

Those responsible* for the reactionary policies that continue to block the use of teaching materials requiring the continuous use of complex thought processes owe the US a satisfactory answer to a question:

The pursuit of life, liberty and happiness requires the routine use of myriad interdependent thought processes too complex and idiosyncratic to be evaluated by standardized tests. Given this fact; given the cost to taxpayers of those tests; given the time devoted to preparing for them; given the life-altering consequences of their scores for learners, teachers and schools; and given their role in perpetuating intellect-limiting conceptions of learning, why is it not morally unacceptable, ethically indefensible and practically unwise to continue their use?

If a satisfactory response isn't forthcoming, those who take seriously the responsibilities of citizenship will encourage and support the "opt-out-of-testing" movement. **Ω**

**To begin a much longer list: Lou Gerstner; Edward Rust, Jr.; Bill Gates; Jeb Bush; Arne Duncan; Mike Bloomberg; Joel Klein; Kati Haycock; Bob Wise; Betsy DeVos; the officers of the Business Roundtable; the U.S. Chamber of Commerce; Education Trust; Democrats for Education Reform; the American Legislative Exchange Council; the Gates, Walton, Broad, Bradley, Dell and other foundations; members of Congress, and most state legislators.*

Washington Post, "The Answer Sheet" blog by Valerie Strauss
Posted March 28, 2018:

12 ideas that help explain what's wrong with most schooling today

For nearly a decade, Marion Brady has been writing for The Answer Sheet about fundamental problems with what and how schools in the United States teach children to become productive and active adults. In this post, he gives a "CliffsNotes" version of the big ideas he has wrestled with, drawing a broad picture of where and how things need to change to really reform American education. [VS]

Cliff Notes

George Mason University economist Bryan Caplan was quoted by *The Atlantic* as saying the following while pitching his new book, *The Case Against Education: Why the Education System is a Waste of Time and Money*:

"From kindergarten on, students spend thousands of hours studying subjects irrelevant to the modern labor market."

Caplan is right about kids spending time on subjects seemingly irrelevant to the modern labor market, but he's wrong about it being a problem.

What's wrong with most schooling today isn't its failure to meet the demands of the job market, but its failure to meet deep personal and societal needs.

Of those needs, none is more important than improving the ability of the young to think for themselves, for the obvious reason that today's solutions won't solve tomorrow's problems. The accelerating rate of environmental, demographic and technological change is creating planet-wrecking stresses and generating problems that existing knowledge can't solve. Long-term survival is possible only if each generation is smarter than the one that preceded it.

Education policies and procedures put in place beginning with the 2002 No Child Left Behind law haven't simply failed. They, along with the Common Core State Standards and high-stakes standardized tests, have tightened the screws on a curricular platform that's headed toward a cliff.

Respected thinkers have long waved warning flags. The general education curriculum — traditional schooling's attempt to prepare the young for life — is at odds with the nature of knowledge. Nearly all of my 70 contributions to The Answer Sheet over nearly 10 years have been attempts to show that the subjects in the core curriculum are working parts of a holistic structure of knowledge, that adolescents of every ability level can construct useful versions of that whole, and in so doing better equip themselves for whatever the future may bring.

What follows is a summary and links to free, illustrative instructional materials assembled from projects my brother, educator Howard Brady, and I undertook for three publishers who saw potential in ideas I had advanced in academic journals beginning with a 1966 article in the *Phi Delta Kappan*.

(1) We agree with many others that poverty is a major contributor to the achievement gap, but blame generation after generation of basically flat academic performance on the disconnect between experienced professional educators and state and federal education policymakers.

(2) We believe poor academic performance is primarily a consequence of information overload. The traditional core curriculum dumps poorly organized, often useless information on learners in unreasonable volumes at unreasonable rates.

(3) We believe standardized tests, and the simplistic assumptions about learning which they reflect, perpetuate merely the *appearance* of learning. Learners "cram" — store enough information into short-term memory to recite and pass quizzes and examinations. But when those threats no longer loom, most of what was "taught and

learned" at great cost in money and time quickly disappears. In no other institution would such inefficiency be tolerated.

(4) We believe an effective general education curriculum must have an agreed-upon aim, and that "maximize learner ability to make sense of perceived experience" is that aim. It puts schooling's emphasis where it belongs; respects the myriad implications attending personhood; is essential to the success of all legitimate aims of general education, and the inherent complexity of reality and of how the human brain perceives and processes information shuts down simplistic, attention-diverting "reforms."

(5) The arguments of defenders of direct instruction and teaching scripts notwithstanding, we believe useful levels of understanding of big ideas can't be delivered by text, teacher talk or technology. Firsthand experience isn't just the *best* teacher of complex ideas, it's the *only* teacher. Meaningful learning is assembled firsthand and gradually from sequenced experiences, a process labeled variously as active, discovery, inquiry or constructivist learning.

(6) Big idea: Knowledge is created by organized human groups — civilizations, societies, ethnicities and so on, from which it follows that organized human groups are the phenomenon most needing to be studied and understood.

(7) Big idea: From shared experience, groups' cognitive systems emerge — distinctive structures of knowledge or "worldviews." Assumptions about the nature of reality, self, others, the supernatural, time, "the good life," causation, and a few other matters shape everything important that groups think and do — their arts, sciences, institutions, religions, norms, values — everything.

(8) Big idea: Nothing a group can know is more useful than an understanding of itself, but the "fish would be the last to discover water" phenomenon makes acquiring that understanding difficult, and the information, when called to attention, seems too obvious and mundane to teach.

(9) Big idea: Understanding other groups' worldviews is even more difficult. Most of the content of world histories has been generated by differences in worldviews, as has any randomly chosen day's news. Earth and its people suffer catastrophic consequences from ignorance of self and others.

(10) Big idea: Human groups are *systems* — integrated wholes — and must be studied as such. Academic disciplines and school subjects focus attention on myriad *parts* of those wholes — their environments, populations, patterns of action, and so on — but failing to treat those as studies of system components blocks the basic knowledge-relating process by means of which knowledge expands.

(11) Big idea: Studying these big ideas is best begun by using close-at-hand reality as the main learning resource. Every school, its contents, and its immediate environs, is

a functioning, systemically integrated whole sufficiently coherent, comprehensive, and complex to serve as a laboratory. That laboratory's concreteness and accessibility make it ideal, its comprehensiveness makes it an inexhaustible source of data, and its relevance and importance to the young assures engagement long enough for the familiar to become "strange enough to see."

(12) Big idea: Every human, consciously and unconsciously, seeks answers to the questions, "What's going on here, and what should I therefore do?" Lifting that process into consciousness turns information into knowledge, and sometimes turns knowledge into wisdom.

It should go without saying that (6) through (12) require learners to hypothesize, generalize, infer, synthesize, relate, correlate, extrapolate, value, imagine, and so on — thought processes too complex and idiosyncratic for their quality to be evaluated by standardized tests. Useful evaluations of meaningful learner work will inevitably be subjective, a fact which, when understood, helps explain why thoughtful teachers believe grading that work is counterproductive.

As the curricular screw-tightening of the Common Core State Standards and high-stakes standardized tests makes clear, education policymakers routinely underestimate both the complexity of teaching and the ability of the young to think.

If we change nothing and continue to assume that the core curriculum does the job that needs doing, that teacher experience isn't worth its cost, that class size makes no difference, that incompetent institutional leadership has no serious consequences, that H.G. Wells was wrong in arguing that civilization is a race between education and catastrophe, then going over the educational catastrophe cliff isn't just possible, it's inevitable. **Ω**

***

To encourage experimentation and dialogue, instructional materials using core-subject content in ways consistent with (6) through (12) can be downloaded from the Internet and used free of cost and obligation. The lessons, and a small e-book arguing the merit of systems theory as the primary organizer of knowledge (and school subjects as secondary organizers), have been downloaded tens of thousands of times, suggesting an unmet need and the potential of bottom-up change and word of mouth to call attention to noncommercial, unadvertised teaching resources.

(a) EBook, *What's Worth Learning?*
http://www.marionbrady.com/documents/WWL.pdf

(b) Systems-based course of study:
http://www.marionbrady.com/IntroductiontoSystems.asp

(c) American history: http://www.marionbrady.com/AHH.asp

(d) World history: http://www.marionbrady.com/WorldHistory.asp

(e) World cultures: http://www.marionbrady.com/InvestigatingWorldCultures.asp

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Index

active learning, 17, 44, 68, 93, 97, 100
aim of schooling, 13, 30, 62
aims for schooling, 82
American Educational Research Association, 7
American Federation of Teachers, 19, 26
American Legislative Exchange Council, 34, 89, 98
Association of American Colleges, 25
autonomy, 13, 16, 32, 38, 39, 72, 76, 89
Berliner, David C., 37
Biddle, David J., 37
Bloomberg, Michael, 23, 34, 89, 92, 98
Bohm, David, 84
Botstein, Leon, 53
Boyer, Ernest, 33, 53, 84
Bradley Foundation, 98
Broad Foundation, 8, 49, 98
Bush, Jeb, 23, 34, 60, 84, 89, 98
Business Roundtable, 41, 49, 89, 98
Caplan, Bryan, 98, 99
Carrel, Ignacio, 70
Center for American Progress, 34
charter schools, 11, 24, 64, 74, 78, 84, 89
Cleveland, Harlan, 32, 33, 53, 84
Clinton, President Bill, 50
Cohen, David William, 53
college and career readiness, 25
Common Core State Standards, 6, 7, 12, 13, 14, 24, 29, 30, 37, 41, 52, 53, 54, 64, 65, 66, 72, 73, 75, 78, 79, 81, 94, 97, 99, 101
  CCSS, 24, 25
  Common Core, v, 6, 14, 17, 19, 29, 33, 50, 52, 54, 72, 97
  Common Core Standards, 8, 17, 18, 19, 25, 32, 33, 37
Congress, 20, 21, 34, 36, 42, 61, 62, 64, 70, 80, 88, 89, 98
Connections: Investigating Reality, 9, 44
constructivism, 93, 94, 95, 97
constructivist learning, 100
conventional wisdom, 4, 12, 24, 42, 47, ***62***, 67, 76, 87
core curriculum, v, 11, 12, 14, 29, 31, 32, 35, 37, 38, 39, 40, 42, 49, 50, 51, 55, 66, 69, 70, 71, 73, 80, 81, 84, 90, 96, 99, 101
Costa, Arthur, 60
Council of Chief State School Officers, 19, 34
cramming, 29, 56
creating new knowledge, 21, 73
critical thinking, 19, 49
de Blasio, New York City mayor, 24
Dell Foundation, 98
Deming, Dr. W. Edward, 75
Democrats for Education Reform, 79, 89, 98
DeVos, Betsy, 84, 91, ***97***, 98
discovery, 93
disruptive innovation, 36
Duncan, Arne, 23, 34, 42, 60, 98
Dunning-Kruger Effect, 89
Education Trust, 98
Einstein, Albert, 21, 62, 63, 69, 84
Emery, Kathy, 37
ethical and moral questions, 40
Exxon-Mobil, 34
FCAT, 1, 28, 77
"Ferris Bueller's Day Off," 17, 92
Finland, 14, 41, 63
Florida appeals court, 86
Florida Comprehensive Assessment Test, 1, 2
Florida State University, 65
Florida's Sunshine State Standards, 27
fragmented curriculum, 36, 84
Frankfurter, Felix, 33
Friedman, Milton, 90
Fuller, Buckminster, 33, 53, 84
future, 7, 9, 16, 18, 19, 21, 25, 42, 51, 60, 64, 65, 66, 69, 73, 83, 87, 95, 99
Gates Foundation, 8, 49, 65, 98

Gates, Bill, 4, 5, 23, 26, 34, 42, 47, 60, 65, 75, 89, 98
Gates, Bill
Measures of Effective Teaching, 4, 6
General Systems Theory, 19, 32, 73
Georgetown University, 50
Gerstner, Louis V. Jr., 26, 60, 89, 98
Gievers, Karen, Judge, 86
Glass, Gene, 7
Goodlad, John, 32, 33, 53
hands on learning, vi, 19, 68, 77
Haycock, Kati, 98
higher order thinking, 82
high-stakes testing, 20, 48, 54, 60, 64
history, 4, 6, 14, 15, 16, 17, 39, 43, 51, 57, 70, 73, 81, 82, 86, 88, 95, 101, 102
Hoffer, Eric, 25
Holt, John, 33, 42
imagination, 10, 13, 20, 21, 22, 23, 53
Indian River Lagoon, 30
information
random, unorganized, 55
unorganized and disorganized, 40
information organizers, 41, 56, 81
Information overload, 29, 55
information processing skills, 62
informational reading, 39
inquiry, 93, 97, 100
institutionalization, 50
Internet, 5, 38, 45, 63, 64, 83, 101
Introduction to Systems, 9, 11, 24, 35, 44, 69, 70, 81, 86
Investigating American History, 17, 70, 71
Investigating World History, 17, 70, 71
Jacobs, Jane, 41
Dark Days Ahead, 41
Kemeny, John, 53
Klein, Joel, 23, 24, 98
Koestler, Arthur, 84
mental processes, 19
Merton, Thomas, 33, 54, 84
Morgan Motor Company, 18
Murdoch, Rupert, 7
National Education Association, 19
National Governors Association, 19, 34, 49
No Child Left Behind, 6, 32, 42, 64, 79, 90, 97, 99
Ohanian, Susan, 37
Opt Out Florida Network, 87
Orr, David W, 54
Perry, John, 27
Phi Delta Kappan, 30, 53, 54, 99
place-based studies, 19
Poland, 63
polarization, 16, 39
Pony Express, 14
Postman, Neil, 33, 53
project based learning, 42
project-based learning, v, 17, 19, 42, 44, 95
Quigley, Carroll, 50
The Evolution of Civilizations, 50
Race to the Top, 6, 32, 33, 42, 64, 67, 97
Ravitch, Diane, 24, 37, 96
real-world, 21, 29, 38, 42, 48, 59, 63, 68, 83, 84, 91, 92
recall, 12, 38, 64, 75, 91, 92, 94, 97
Rene Descartes, 33
rigor, 11, 14, 19, 24, 26, 27, 33, 52, 54, 55, 66
Roach, Rick, 1
Rust, Edward Jr., 89, 98
Salman Khan, 5
Sandia National Laboratory's Report, 37
school
resource for investigation, 43
school grades, 11
selective perception, 39
Senge, Peter M., 33, 54, 84
The Fifth Discipline, 33
sense of community, vi, 15, 34, 44
severely disabled boy, 1
Shanghai, 41
Singapore, 14
Sizer, Theodore, 54
skills, 3, 5, 6, 13, 21, 36, 38, 43, 44, 45, 59, 92, 93
Smith, Philip L., 8, 10
societal problems, 39
South Korea, 41, 63
standardized test, v, 1, 2, 48, 71, 78, 86, 88, 97

standardized testing, 74
standardized tests, v, 3, 6, 22, 23, 24, 29, 40, 42, 47, 48, 52, 59, 60, 61, 63, 66, 67, 74, 75, 77, 78, 79, 80, 83, ***85***, 86, 87, 88, 90, 91, 93, 94, 95, 96, 97, 98, 99, 101
state legislatures, 36, 62, 64, 70, 89
Stein, Ben, 17
STEM, 19
Stevens, Robert, 53
systems, 39, 43, 44, 69, 71, 72, 100
  "socks" sequence, 51, 80
systems theory, 41, 69, 70, 71, 73, 84, 101
systems thinking, vi, 32, 69, 84, 85
Tea Party, 37
Teach for America, 6, 74
teacher's role, 4
teacher's role
  coordinator and co-learner, 35
  delivering information, 4
  requiring kids to construct information, 5
  student-centered, 6
  teacher centered, 6
textbooks, 10, 15, 17, 42, 47, 63, 66, 71, 83, 86
Thackray, Arnold, 53
The Atlantic, 98
The Manufactured Crisis, 37
The New England Primer, 6, 93
thinking skills, 64, 82, 83
thought processes, 5, 6, 7, 14, 19, 38, 62, 76, 78, 80, 82, 88, 90, 91, 94, 96, 97, 98, 101
Tucker, Marc, 26
U.S. Chamber of Commerce, 34, 49, 89, 98
U.S. Department of Education, 10, 19
U.S. Secretary of Education, 8, 91
Vonnegut, Kurt Jr., 33
Walton Foundation, 8, 49, 98
Waltons, 34, 42
water table, 16
Webb, Dr. William, 44
Wells, H. G., 72, 83, 88, 101
What's Worth Learning?, 9, 11, 95, 101
What's Worth Teaching?, 8
Whitehead, Alfred North, 32, 33, 63, 84
Wise, Bob, 98
worldview, 5, 6, 39, 52
worldviews, 39, 100

Thematic Index

Page numbers are for the beginning of the piece dealing with the listed theme.

Problem/solutions overview 29, 37, 67, 97, 98

Standardized test problems 1, 20, 24, 47, 59, 77, **85**, 88, 90, 96

Active vs, passive learning/constructivism 4, 20, 92

Role of teachers 4, 14

Core curriculum problems/alternatives 7, 11, 37, 65, 72

CCSS problems 17, 24, 29, 50

Overload/shallow learning 26, 55, 79

Fragmented curriculum/alternatives 33, 50, 52, 79

Systems theory/organizing information 29, 37, 55, 67, 84

School as learning resource/lab 42, 62

Corporate “reform,” charters, vouchers 74

Complex thinking processes 62, 82, 96