

The Whole Is Greater Than the Sum of the Parts

By Marion Brady

Maybe she's still playing the piano and enjoying it. Maybe not. But if she is, she and her mother probably have my oldest son to thank.

He was back from the U.S. Navy. He'd served his hitch as a musician, sometimes playing trombone in big bands, but more often playing acoustic bass or guitar in small combos, backing up touring entertainers.

He hadn't yet gone into the civil-engineering field, and was picking up miscellaneous work ranging from carpentry to filling in at a local music store. He preferred the part-time store job, especially giving music lessons. The pay was poor, but the satisfactions great.

The little girl came in trailing her mother by several steps. She had a book of beginner-level keyboard exercises under her arm and a scowl on her face. The mother explained that, although she herself wasn't an accomplished pianist, playing had always given her pleasure and she wanted that for her daughter. She had, however, about given up. Would someone at the store at least give it a try?

"Sure," said my son. He made some get-acquainted small talk with the 7-year-old, then took her hand and led her to a practice room.

"Do you like that book under your arm?"

"No," she answered.

"I didn't think so. Want to pitch it?" my son asked.

"Yes," she said, brightening considerably.

"OK. Put it over there, come sit beside me, and let's try something. I'm going to play a chord—hit a bunch of notes all at once. When I do, you fool around with one finger until you find a note that sounds good to you when you hear it with the notes I'm playing."

There was initial uncertainty, but she found a groove. After several minutes of this he said, "OK. Here's what I want you to do this week. First, put your book in the bench at home and forget about it. Then, I want you to try to make up a little tune. Like this. Or this. Or this."

With one finger, he played three short, funky, unfamiliar little melodies.

"When you have one you like, bring it back ready to play for me next week. Oh, and give your tune a name," he added. "OK?"

He told the mother not to let her spend more than 15 minutes a day at the piano. The mother said she couldn't imagine that keeping her daughter away from the keyboard would be difficult.

Best practices

I wrote that little vignette ten or so years ago for one of my Knight-Ridder/Tribune columns. I wanted to explain, in simple language, several major principles of sound teaching:

First, my son did an aptitude check. Watching and listening as the little girl found notes that fit the chords he played, he settled to his own satisfaction that she didn't have a tin ear. If he'd thought that, he'd have gently suggested to the mother that maybe her daughter's talents lay elsewhere, maybe in dance or art or some other field.

That's not how it is in America's schools. Aptitude or lack of it is irrelevant. There's a required curriculum. If you want to graduate, you have to pass, for example, algebra. Period.

Second, he individualized the instructional material. The little girl's tune, not those in her book, was the focus.

That's not how it is in America's schools. Textbooks are the primary tool of instruction—secondhand, pre-processed content assembled by publishers with an eye on what they think will sell in their two biggest markets, Texas and California. Creativity, steadily declining as the “standards and accountability” reform fad progresses, is given short shrift.

Third, he moved her gradually through increasing levels of complexity based on his perception of how fast she was learning. When she came back the next week, he wrote out her tune on large manuscript paper, with the title she'd chosen at the top. As the weeks passed, her little tune was elaborated. The single line of melody became a progression of chords—a composition.

That's not how it is in America's schools. The curriculum is a confused mix of random, specialized, disconnected or poorly connected subjects sharing no overarching aim, no coherent conceptual structure, and no organized sequence of experiences of increasing complexity. Students are pushed along at a standard rate, covering standard material, preparing for a standard exam.

Fourth, there were no grades, no gold stars. He relied on intrinsic rather than extrinsic motivation. This was her tune and her elaboration of it, with all the satisfactions accompanying creativity and ownership. She wasn't just taking piano lessons, she was writing music. She was a composer!

That's not how it is in America's schools. Rigor is a favorite theme of today's corporately oriented education reformers—rigor, because it's assumed that learning is a tough grind at odds with human nature. The “sit down, shut up, face front, read and listen, or suffer consequences” regimen runs deep in American schooling.

Fifth, there was no “high-stakes test,” no final exam, no do-or-die act.

That's not how it is in America's schools. Have one bad day, read a couple of questions wrong, fail one test, and the walk across the stage that marks the end of years of schooling may yield a handshake and a blank sheet of paper or useless “certificate of completion.”

Problems and possibilities

“How it is in America's schools” is far from where it should, and could, be. In a contest to design a dysfunctional system for educating the young, the status quo would surely walk away with honors. We have an organizational structure borrowed from the Prussian military. We have a teaching tool—a curriculum—designed in the 19th Century. We've clung stubbornly to the idea that an appropriate model for classroom instruction is a Sunday morning religious service—The Word delivered by an authority to a passive congregation.

We've put major policy decisions in the hands of state and federal legislators with no teaching experience, no respect for those who have it, and no apparent interest in research. We've failed to devise a system for effectively communicating the lessons of history and the insights of experience. We've stood aside as the institution was taken over by leaders of business and industry, some seeing it as a cash cow, some wanting taxpayers to pick up the tab for training their employees, some worshipping at the altar of privatization.

The whole institution needs rethinking.

The logical place to start meaningful reform is with something the institution has never had—a clear, concrete, agreed-upon aim and a curriculum consistent with that aim. But formulating one isn't going to happen. Bureaucratic inertia and hubris will see to that. The conceptions of educating of those now in charge are too limited, their knowledge of alternatives too narrow, their understanding of the field too meager, to break with the past and start fresh.

There is, however, a relatively recent development which, properly exploited, might open a door to meaningful change. In their enthusiasm for “running schools like a business,” those who began shoving educators aside about twenty years ago and taking control of the institution have overreached. Assuming that educating is primarily a matter of transferring information from those who know to those who don't, and believing that assessing performance is a simple matter of measuring the amount of information transferred, they launched the present standardized testing frenzy.

Given the money, power, and momentum pushing that frenzy, it may continue, but the backlash appears to be growing. More and more parents and concerned citizens are realizing that constant testing creates negative student attitudes toward schooling, perpetuates the artificial compartmentalizing of knowledge, ignores the creative potential of human variability, blocks innovation that can't be evaluated by machines, rewards short-term memory at the expense of other thought processes, narrows the curriculum, undermines the democratic principle that those closest to problems are best positioned to deal with them, allows corporate interests to control the institution, and costs a lot of money—just to begin a list of standardized-test related problems.

Evaluating performance responsibly

The frustration and anger of students, parents, grandparents, concerned citizens, and taxpayers—once they realize that they're being abused by a misused assessment tool—offer the best hope for release from the tyranny of testing.

Accountability, of course, is essential, but standardized tests are one of the poorest of means to that end. Before the corporate attack on teacher integrity began, teacher ability to judge student performance was taken for granted. Ironically, the middle-aged and older individuals now leading the charge against teacher-led assessments were themselves routinely assessed by teachers. That arrangement worked well enough to help make America's schools the envy of the world, and could do so again.

To the end of establishing that experienced teachers—and only experienced teachers—are in a position to assess learner performance, walk back with me through the little vignette with which I began. It's a description of teaching and learning writ small, but it models schooling well enough to allow attention to be drawn to factors relevant to the process and its evaluation.

It was relevant that the mother and daughter were almost certainly middle or upper-middle class, with attitudes and beliefs to match. It was relevant that at the time, my son was 22,

trim, good looking, and outgoing. It was relevant that the student was a seven-year-old girl, relevant that entering the store, she trailed her mother by several steps, that she was scowling, that he engaged her in relationship-building small talk (not adult-to-kid, but adult-to-adult small talk), that he took her hand, that he demonstrated empathy with his question about the book she was carrying.

And so on, minute by minute. He read facial expressions and body language, listened to what was said and how it was said, tried to discern levels of comfort and discomfort, interest and boredom, uncertainty and self-confidence, distaste and enthusiasm.

That's what effective teachers do that standardized tests can't do.

Where's the standardized test that can capture and attach meaningful numbers to what was happening between my son and the little girl? Who would set the test's pass-fail cut score? Using what criteria? Would the fact that the girl was still playing the piano and enjoying it years later, or that she quit when the lessons were over, be relevant? If so, how could that long-term outcome be predicted? If she stopped playing, would that mean that she failed the test, that the composition she created, the new ideas she learned, the skills she developed, the emotional highs and lows she experienced, were of no significance?

Those are complex, difficult questions. It's surely ludicrous to suppose that someone in a test manufacturer's cubicle far removed from the music store could write a test that disclosed even a fraction of what my son knew about the little girl's relationship to the piano.

Change the one girl to ten, twenty, thirty or more kids, change the piano to math, history, chemistry, or some other school subject, and the difficulties of assessment increase exponentially. There's simply no getting around the fact that what happens in teacher-learner interactions lies far beyond the capabilities of so-called "objective" standardized tests to adequately evaluate performance.

The central role assessment plays in education, and the central role education plays in the pursuit of life, liberty, and happiness, call for extended, thoughtful dialogue to "get it right." Unfortunately, at the moment, getting it right may have little or nothing to do with the matter. If the wealthy philanthropists, the leaders of business and industry, the big-city mayors, and state and federal politicians now shaping the institution have other agendas, it follows that what's good for the young, what's good for the institution of public education, what's good for America, will be irrelevant.

That's unacceptable, so hope lies in citizen awareness and action. Congressional paralysis on education policy, the willingness of an increasing number of once-silent administrators and teachers to speak out, the long list of school boards and other organizations signing the National Resolution on High-Stakes Testing (<http://timeoutfromtesting.org/nationalresolution>)—all are hopeful signs of a growing awareness of the misguided, reactionary nature of current education "reforms."

A way ahead

It needs to be admitted: The never-ending call for education reform is evidence of fundamental institutional problems. To a particular one of those problems dozens of scholars have called attention, but educators—unwilling or unable to think beyond the confines of their chosen disciplines—have failed to address it. There will be no significant improvement in the quality of education until the problem is recognized and addressed.

Alfred North Whitehead, in his 1916 Presidential Address to the Mathematical Association of England, called attention to it. Educators must, he said, “eradicate the fatal disconnection of subjects which kills the vitality of the modern curriculum.

John Goodlad, concluding a massive study of American high schools, in a 1992 report 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.”

The reality schooling seeks to explore and explain can’t be adequately understood by fragmenting it and turning the fragments into school subjects. It’s absolutely essential to know how the fragments fit together and interact. Interdisciplinary study isn’t the answer. The disciplines didn’t begin life as parts of a coherent whole, and they can’t now be hammered together in any kind of intellectually manageable way. There is, however, an easy solution to the problem—project learning—making a fragment of the real world the focus of direct, hands-on study, using the academic disciplines as tools.

The optimum project: The learner’s school and its immediate environment.

Whether that school is large or small, rich or poor, rural or urban, functional or dysfunctional, makes no difference. Every school models in miniature the world outside its boundaries in all its physical, biological, and sociological complexity. Designing and applying quantitative and qualitative analytical strategies and procedures, then organizing, recording, and interpreting the information thus generated, has learners refining what every human does every waking moment—trying to answer the question “What’s going on here, and what should I therefore do?”

Study of immediate, here and now experience using the school as “textbook,” will make direct use of every art, every science, every academic discipline the study of which belongs in the general education curriculum. The aim—making sense of experience—is simple, clear, and easily understood by every learner. Learning by doing replaces passively absorbed and soon-forgotten secondhand knowledge. Individual differences become assets to be explored and exploited rather than creating problems of pacing. The work automatically adjusts to varying ability levels. Routine use is made of every thought process. Locally available expertise, community resources, and the internet become easily utilized resources.

Perhaps most importantly, the inherent complexity of the task makes clear the inadequacy of commercially produced standardized tests in evaluating learner performance.

And, because the school is unfailingly relevant (even for those who hate it or are utterly bored by it) the emotions without which learning never happens are dependably close. Look kids in the eyes, give them a genuinely difficult task—ask them to thoroughly understand their school and use that understanding to improve it—*and mean what you say*—and they’ll create learning communities that, finally, justify societies’ investment in education.

Marion Brady’s website: www.marionbrady.com