

## National Subject-Matter Standards? Be Careful What You Wish For

By Marion Brady

“American education,” said Buckminster Fuller, “has evolved in such a way that it will be the undoing of the society.”

Fuller, the visionary thinker and inventor whose work spanned fields from architecture to philosophy, was about to address a 1988 conference of business executives at Rockford College in Illinois, but was first reacting to a speech just concluded by the college’s president.

Looking at the president, he continued: “What you fellows in the universities do is to make all the bright students into experts in something. That has some usefulness, but the trouble is it leaves the ones with mediocre minds and the dunderheads to become generalists who serve as college presidents. And presidents of the United States.”

Generalists—people concerned with the “big picture”—don’t get much respect in the modern world. There’s no “generalists” listing in the Yellow Pages, none are on school faculties, and no employment ads request applications from them.

What’s the big picture right now? Clashes on the fault lines between religions, societies, and civilizations. Terrorism. A widening gap between rich and poor. The confusing of national power with national greatness. Boardroom dishonesty. Violence promoted as entertainment. Lobbyist-dominated legislatures. Great confidence in the ability of force to improve the world. Tax evasion and other evidences of a lack of a sense of social responsibility. An education system in disarray from policies driven by ideology and simplistic conventional wisdom.

Big-picture issues are parts of an integrated whole. But what the education establishment brings to bear on them are specialized studies focused on *parts* of that whole. Ignored is the fact that these might actually be *causing* problems. We’re unable to see the potential for chaos resulting from millions of experts doing their thing with little or no understanding of how their actions interact.

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The system of education Buckminster Fuller was criticizing—the one now in near-universal use in America and much of the rest of the world—took shape after the Civil War when the new big thing was division of labor, standardization of parts, and mass production. School systems quickly locked in bureaucratic place hierarchical management structures, centralized decisionmaking procedures, and lines of authority paralleling those in heavy industry. The school consolidation movement accompanying urbanization then elaborated and reinforced those arrangements and procedures.

Almost everyone agrees that the industrial model applied to education disregards human nature, stifles imagination and creativity, encourages a preoccupation with minimum standards rather than maximum performance, wastes the potential inherent in human variability, and is at odds with deep-seated American beliefs about individual value. But the industrial model of schooling is so deeply embedded that imagining alternatives has become almost impossible. “Reforms” just shuffle system elements—they change clocks or calendars, add new technologies, alter staffing patterns, tighten procedural screws, fix blame for poor performance on something different. Left unchallenged and unchanged is the assumption that good sense can be made of the world by breaking it into pieces and studying the pieces.

As Fuller said, specialized study “has some usefulness.” We’ve created an exceedingly complex way of life that can only be sustained with specialized knowledge. But introducing learners to a handful of disconnected school subjects and expecting them to weave those together to make useful sense is as unrealistic as showing them a fistful of jigsaw-puzzle pieces and expecting them to describe the whole of which the pieces are random parts. They can’t do it.

That everything in the real world connects in one way or another, and that making useful sense of it requires not just knowledge of the parts but also of their relationships to each other and the whole they compose, is a very old idea. Philosophers, scientists, educators, and other scholars have been saying so for centuries.

Out of the Association of American Colleges’ 1985 Project on Redefining the Meaning and Purpose of Baccalaureate Degrees came the blunt statement: “We do not believe that the road to a coherent curriculum can be constructed from a set of required subjects or academic disciplines.”

From John I. Goodlad’s massive study of American high schools came this conclusion: “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.”

In his best-selling book *The Fifth Discipline*, Peter M. Senge, scientist, engineer, and founding chair of the Society for Organizational Learning, wrote: “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.”

In place in America’s schools and colleges is a curriculum adopted in the 19th century, a curriculum that ignores the fundamental, systemically integrated, mutually supportive nature of knowledge, that has no agreed-upon aim, that lacks criteria establishing what new knowledge is important and what old knowledge to discard. It’s a curriculum so inefficient it leaves little or no time in the day for apprenticeships, internships, or

projects; disregards research and common sense about the contributions of art, music, dance, and play to intellectual development; overworks short-term memory to the neglect of all other cognitive processes; costs an appalling amount to administer; doesn't progress smoothly through ever-increasing levels of intellectual complexity; and is keyed not to learners' aptitudes, abilities, and interests, but to their ages.

The curriculum has no built-in mechanisms forcing it to adapt to change; isolates educators in fields, discouraging professional dialogue about the state of education and collaboration in its improvement; is so at odds with the natural desire to learn that laws, threats, and bribes are necessary to keep kids in their seats and on task; fails to explore questions essential to ethical and moral development; emphasizes minimum standards rather than maximum performance; and snubs major sources of America's past strength and success—individual initiative, imagination, and creativity.

This is the curriculum that's played a leading role in bringing the institution to crisis. And it's the curriculum that just about everyone—including many who should know better—now seems to think should be locked in permanent place with national subject-matter standards.

Big mistake! Standards? Of course. But standards not for a random handful of specialized studies, but for learners, for what we want them to be and become.

Here's a prediction: If implemented as it's being advocated by spokespersons, the national standards-reform effort will fail. Period. It won't fail because subject-matter specialists can't agree on standards. And it won't fail because of teacher incompetence, weak administrators, "the soft bigotry of low expectations," union resistance to change, parental indifference, inadequate funding, lack of rigor, failure to employ market forces, too few charter schools, too little technology, or any other currently popular explanation of poor performance.

It will fail for the same reason the No Child Left Behind Act failed—because it will be driven by data derived from simplistic tests keyed to simplistic standards keyed to a simplistic, dysfunctional, obsolete, 19th-century curriculum.