

from Phil Runkel

"CUTTING EDGE"

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ADVISORY LETTERS ON MAJOR SCHOOL IMPROVEMENT AND PROGRESS

1985-86 SCHOOL YEAR MAY SEE WALLS FALL, PROGRESS REV UP

Governors' programs probably won't get far, but new ideas find substantial support

By Leslie A. Hart

Our education system has long been noted for its ability to resist change, but the coming year may see *that* change, too. A lot of bits of evidence, and some larger factors, suggest that at long last the mountain is beginning to move. The momentum could grow.

Most of the push that is gradually surfacing comes, we think, from educators rather than politicians or pundits. True, many employed in schools and systems continue to waffle from each year to the next, hoping to survive a while longer. Others who feel as if they have been beaten with small clubs too long seem to have developed a protective numbness. But there has always been a small sprinkling of people in whom the fire burns bright, and who now see opportunity in the intense criticism of schooling and flurry of proposals.

Time was when almost any serious proposal for change was met automatically with "why?" That has become a foolish question. If suggested change still provokes fear above all, the criticism and horror stories press from the other side. *It is no longer safest to hide, and hiding places have become hard to find.*

Educational reform has, rather surprisingly, jumped to the level of major – even prime – concern for governors in almost every state, and states long at the bottom of the list have made the most noise, and taken the most action. Most of the governors have backed some kind

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BRAIN-COMPATIBLE SCHOOL IS HITTING LEARNING JACKPOT

Pilot program evaluations confirm exceptional student outcomes

Read this
one →

Probably, it's the country's only fully brain-compatible school... and the results after two years suggest it's a whopping success.

The program that began as an option parents could accept or reject – 120 first and second graders entered it – was viewed so favorably by the end of the first year that the option became the standard program, and was extended to third grade. The second year began with about 300 students involved, and three times as many staff members participating. As this 1984-5 year was being completed, the decision was made to extend again, to encompass the entire 700-student, K-5 public school.

Word of progress being made at Perry L. Drew School has already percolated widely, bringing visitors from many states to this unit of the East Windsor, NJ system. Obviously the innovative program created happy, extremely well-behaved students – as well as enthusiastic, upbeat, collegial teachers, and strongly supportive parents. Learning, by all signs, was excellent (see article in *Cutting Edge* #4, February 1985). But would it show up on a battery of evaluations by various means?

The question was answered in July when the East Windsor Board of Education devoted an entire long meeting to hearing such reports. All were highly positive, whatever test or method was used.

Seeking Best Learning

Evaluating the brain-compatible program presents problems, since many tests are designed for conventional schools (and often the schools of many

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IS IT TIME TO JUNK NEATLY SLICED CURRICULUM?

One major reason why our school system splutters and bucks like a worn-out jalopy is that it is old and worn out. And no aspect presents itself as more antique and obsolete than the curriculum — not only the list of studies itself, but the very concepts on which conventional curriculum experts erect their pathetically inadequate structures.

In practice, of course, the official curriculum is on paper, a document that serves mainly as the basis of arguments. The real curriculum — often called “hidden” — consists of what goes on in the boxes called classrooms, where each teacher is usually free to largely ignore the official design, or to modify it, sometimes beyond easy recognition. In addition, an individual teacher’s lack of knowledge, distaste or disinterest, or lack of skill, materials, and other resources, may result in gross departures from the written plan. Even where teachers may intend to follow the given curriculum, differences in their allotment of time, studies show, can run to extremes.

The “Subject” Boobytrap

Subjects do not exist in nature, as has long been observed. The concept of subject begins not with concern for learning, or consideration of the real world, but with the *convenience* of a school bureaucracy that prefers clerical neatness — what we might call the Carnegie Point obsession — to dealing with messy complexities of an intricate universe. As the complexities of life increase, the old formal curriculum becomes less and less useful.

The convenience factor plainly is a key reason why schools pressures push operations toward the textbook, the worksheet exercises for students to do at their desks, and the standard kinds of quizzes, exams and standardized tests. Endless effort goes to trying to reduce a living student to a number or letter — 68 on that test, B- on a report card. The four walls of the classroom become fortifications against the real world — for which, presumably, the student is being prepared!

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years ago), while the Drew pilot program is based on applying Proster Theory, generally considered the leading, comprehensive published theory of *human learning* that stems from modern knowledge of the brain. The Drew program was developed by asking, “On the basis of the theory, what settings, arrangements and activities will contribute to *best learning*?” This approach, which seeks to move from *theory* to *design* to *implementation*, differs radically from the common “tinkering” efforts to improve by making small modifications of the age-old, graded-classroom school which from a Proster Theory viewpoint tends to be *brain-antagonistic* in form and practice.

Thus the pilot program moved away from isolated teachers and students in “boxes” to team instruction and highly flexible groupings. It encourages students to move and talk as they often work together on activities that have a high “real world” rather than task or exercise quality. Great emphasis is put on communications (talking, listening, writing, reading — to practical purpose), and students do a huge amount of writing. Instead of boring routine, plowing through texts and worksheets, daily activities cover a great range: students run businesses, including a busy bank; publish a newspaper and their own books; hold court and elections; put on shows; create and maintain a “zoo” and science exhibit; use cameras; and attend up to 150 short large-group presentations a year that add to input on the real world and its complexities. Old-style recitations and “canned” seatwork get squeezed out; but vigorous rote learning is used for limited purposes. Because, as one special evaluation showed, teachers do absorb and learn to work from theory, the variety of activities have a common thrust and well understood purposes, all focused primarily on *learning*.

High Scores, High Gains

This brought scores even on Iowa standardized tests, which it was thought related least to the program, reaching into the high 90’s — even to 99% in math and language. Other tests showed highly impressive gains from fall to spring. On a writing test, for example, the median for nominal 1-2 graders rose from 2.0 to 5.5!

The program does not “push” students; it “takes the brakes off learning” and lets those who can soar ahead. On the other hand, a major aim is *zero failure*. Though not achieved as yet, the number of students lagging was kept very small. “Quality control” of learning is continuously exercised by several means, including regular one-to-one conferences with every student.

Even more important than scores, it was felt, was evidence that the great majority of students typically became eager, aggressive, confident learners who were laying down a broad and firm foundation for lifetime learning, rather than memorizing “right answers.”

Will teachers accept brain-based theory, and work from it? That question was clearly answered affirmatively by a special evaluation. Because they could see the theory applications working, and enjoyed a strong sense of ownership of the program, staff rapidly began using the theory day-to-day. A surprise was the speed with which staff took hold of many new concepts and techniques, even in their first year of exposure to the brain-compatible approach. Agreement on theory helped promote team effort by a notably creative, professional and sensitive staff, eager learners themselves.

While the Drew program is still on pilot-project scale, the striking results appear to suggest the power of brain-based theory to bring jumps in cognitive attainment. The practicality of starting from theory — almost unheard of in American education — appears to have been demonstrated.

"TESTING DILEMMA" CAN BE RESOLVED

Distinguished educator M. Donald Thomas, of our Editorial Review Panel, writes in the SMSG Newsletter: "An undercurrent of the reform movement is the belief that there is too much reliance on test scores. It places the educational community in a dilemma. On the one hand we are told to improve academic achievement (usually measured by test scores) and on the other hand we are told that we test too much — especially in the elementary schools."

Dr. Thomas makes the point. But the solution does not seem too difficult. Once we begin to *question* testing and *look* at what is often done, progress can follow rapidly. The problem lies mainly in education's predilection for continuing what was done last year whether it makes sense or works, or not.

Most tests stem from the old notion of "I taught you that, now regurgitate it" — a primitive, out-dated concept of learning. Tests should not ask

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This should sound right to you.

Newer ways of testing are coming into use. Boards and administrators who seek them out can all the sooner dump the wornout types.

Testing does not improve academic achievement, any more than getting on scales often will reduce your weight. Tests take time to give, score, and record — time *subtracted* from instruction.

Giving tests, and then doing little or nothing to improve the learning deficits revealed, seems almost criminal — yet it is the rule rather than the exception. The student is given a low mark... and that's the end of it.

Schools need to adopt the idea of *quality control*, making sure that *all* students are learning, day-by-day, and *changing* methods as needed to correct shortcomings in instruction. Where teachers work in classrooms, QC is difficult. In better, flexible team-settings, QC becomes far simpler. It is even possible to have one-to-one private conferences with students twice a month, as at East Windsor (see page 1).

CHICAGO FINALLY DUMPS BIT-BY-BIT READING METHOD AFTER 5-YEAR TRIAL

Millions poured into "logical" teaching brought only dismal outcomes

It all sounded so sensible. Break "reading" up into hundreds of bits. Teach the bits as separate "skills," keeping detailed records for each student. Insist on "mastery" of the bits, as taught, before the student moves ahead. As the kids, especially those from less favored homes, learned the bits, they would automatically learn to read. Right?

Wrong. As anyone familiar with modern brain-based theory of learning could have safely predicted, the result was large-scale disaster. Over some five years, more than \$7-million went into the program. At times teachers complained bitterly that they were drowning in the paperwork called for, and stifled by the rigid mechanics. (273 bits!) A local research organization found recently that three-quarters of ninth grade students were below grade level, and last efforts to keep the "logical" system going collapsed. The Board of Education also backed off a similar approach for math.

According to *Education Week* (8/21/85), schools in more than a thousand school districts have picked up the general method and materials, which originally were hailed with great fanfare.

The debacle has also given an ill-deserved black eye to the "mastery" concept, associated with eminent researcher Benjamin S. Bloom. Bloom has pointed out that he was not consulted, and that "unless a kid reads a great deal, he's not going to learn reading very well, no matter how many separate skills he has." But the idea of mastery, used with more insight and less mechanically that in this instance, will no doubt survive this perversion. It has power and importance both as philosophy and method.

The Appeal of "Logic"

The experience illustrates the ignorance of the brain — which is, of course, "the organ for learning" — which allows many educators and even more lay people to fall for the charms of an instructional plan that seems sensible, logical, and sequential — as if that were how students learn. Under this lies a more basic fallacy: that students learn what they are taught, and as taught — although it is hard to think of anything that could be more obviously untrue. Anywhere we look, in conventional schools, we see screaming proof of just the opposite. If ordinary teaching produced intended learning, we would hardly endure the "reading problem" we plainly have, and have had for generations.

We know today that the brain does *not* work like a small digital computer, moving "logically" (Greek-type sequential logic) from A to B to C... On the contrary, the brain is multi-channeled, and can move down a hundred pathways *simultaneously*. Further, it does not "learn" by taking in what is fed to it, but instead takes in only what interests that particular brain, then *restructures* it to meld with what is already there — often greatly transforming it from the way it was taught. Intuitive teachers recognize this at least in part, noting that a variety of approaches and activities seem to work better than simple, sequential efforts.

Yet the naive belief that everything must be taught in someone's notion of a logical sequence prevails, crippling instruction to the degree it is applied... and leading at worst to such sad and amazingly wrong efforts as we have seen in Chicago.

"CUTTING EDGE"

YEAR 2 BRINGS SOME CHANGES

Cutting Edge thanks all who have offered support, help, and encouragement during our first year. This coming year we hope to see our letters used more widely by those groups and individuals who take educational progress seriously. Note that we have widened our focus, originally "school boards and administrators," to "Advisory Letters on Major School Improvement and Progress." That does not suggest any lessening of concern for our first audience. But it seems now that our "new voice in education" – apparently the only one with our "cutting edge" approach – can be of value to college faculties, planning and research groups, unions, networks and the like.

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of plan, and are thereby committed. They have to produce some visible results, or be embarrassed. To be sure, slightly elevated scores, if somehow obtained, can be hailed as showing progress – but even skillful politicians will have trouble making minor gains into triumphs of "excellence." As the big plans sputter, it could well eventuate that the successes of educators here and there *in schools* will be brought into the spotlight.

Happy Outcome . . . If True

If that does come about, the more aggressive and innovative educators, particularly superintendents, principals, and a few mavericks on the edges, will find appreciation and reward that long has been lacking. Politicians will get off the hook. Best of all, real reform and advances will find support, and some major gains can begin to spread. What looked like stone-wall resistance may crumble when pushed.

Governors' active involvement is all to the good, even if their plans spin wheels. There has never before been as vigorous a drive for progress as their efforts now provide. Add to it the influence of the major educational organizations. Almost all have begun to break out of the conventional boundaries – the best instance, perhaps, is the now practically universal interest in brain-based approaches (which *Cutting Edge* has incessantly advocated.) As study and talk turn to action, a rush can follow, as those who have been waiting the chance to move see the light turn green.

All over the country – if the signals don't deceive – the present climate of discontent has encouraged committed people to see where and what the major obstacles are: the insane "graded classroom" structure that puts kids in a vice and teachers in boxes; the notion that only a few students can be good learners; the conventional and utterly wrong ideas of learning as sequential, logical, and evidenced by "right answers;" and emphasis on kinds of testing that produce precisely the kind of outcomes *not* wanted.

The next step is to say the shocking words out loud. It can become suddenly apparent that much that is done today is counter productive, constantly fails, wastes billions, and defies all we know about using people effectively. A lot of rebels are on the right track. When their efforts and thrust begin to merge, massive progress may well prove more rapid than we have dared to expect.

These ideas have already taken considerable hold:

1. High expectations should apply to all students – none should be "written off" as not good material.
2. Teachers need better working conditions, in every sense. The *job* must be greatly improved.
3. Decisions should be made at the school level, where the students are, rather than centrally or far away.
4. Schools must become schools rather than be a collection of classrooms, little unified.
5. Traditional and conventional approaches are working poorly and need reexamination, and probably change.