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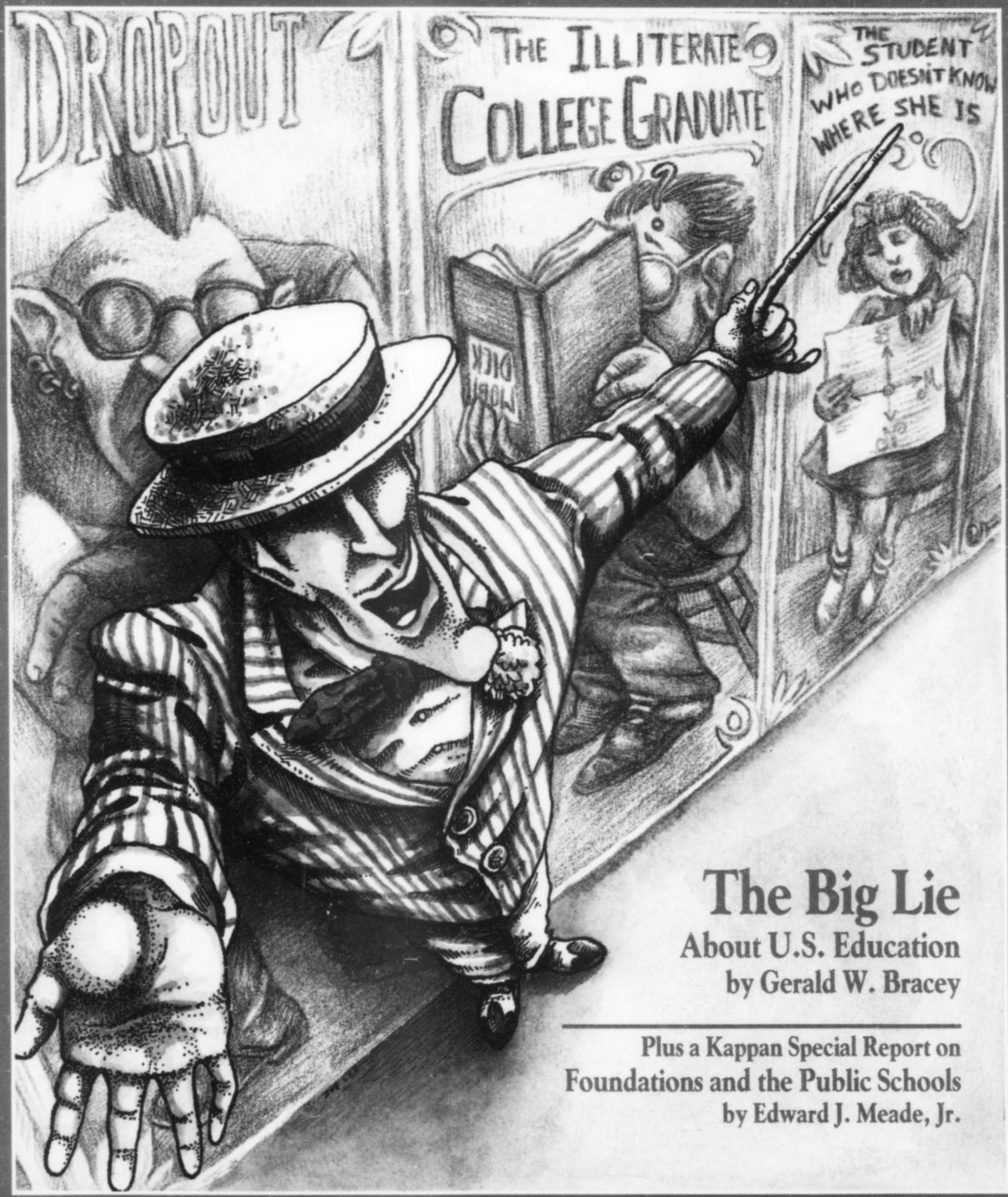

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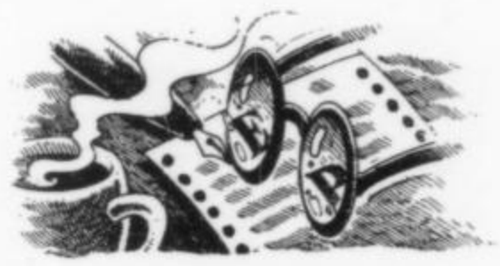
GUEST EDITORIAL



Keeping the Public Trust

IN THIS month's *Kappan* Special Report, Edward Meade documents the increasingly important role that foundations have played in the development of the U.S. public schools since the close of World War II. As I read the report, I could not help but relate what Meade was saying to the impact that foundations have had on Phi Delta Kappa. There is no doubt that Phi Delta Kappa has benefited greatly from the work that foundations do.

The Kettering Foundation (and the short-lived CFK Ltd.) played an important role in the initiation of the Gallup/Phi Delta Kappa poll on public attitudes toward education. The Lilly Endowment aided in this effort and subsequently funded programs that led to Phi Delta Kappa's entry into the area of staff development and to some of PDK's most important publications. Several foundations have provided scholarships through PDK to encourage outstanding students to prepare for careers in teaching. And the Ford and MacArthur Foundations are currently underwriting the cost of extended analyses of data from PDK's study of students at risk. Phi Delta Kappa would probably not have undertaken these ventures without the assistance of foundations.

More important, however, is the role that Phi Delta Kappa's own Educational Foundation has played in enhancing PDK's program efforts. The Phi Delta Kappa Educational Foundation was formed 25 years ago by a man whose dream was to make it possible for "schoolmen" to write down their "as yet unwritten wisdom." That man, George Reavis, was convinced that senior educators had things to say that would improve education, and he was willing to make an initial investment of $500,000 to make this possible. Twenty-five years later, Phi Delta Kappa is celebrating the realization of his dream.

The PDK Educational Foundation has become, in that 25 years, a major player in all of Phi Delta Kappa's program activities. It has assumed responsibility for Phi Delta Kappa's entire special publications program and supports an impressive array of scholarships, seminars, and professional development activities. It has invested more than $6 million in PDK programs, and it has attracted more than $3 million in contributions. And all of this has been accomplished while the trust itself has grown in value to more than $3 million.

A foundation must, by its very nature, cause things to happen. The Educational Foundation has enabled Phi Delta Kappa to be more than it otherwise could have been. It has done this not only by providing funding, but also by making it possible for Phi Delta Kappa to take risks. Being less restricted by budget considerations and precedents, PDK has been able to "risk" money on new programs involving scholarships and camps for high school seniors, on efforts to encourage minorities to enter the field of education, and on matching grants to encourage chapters to adopt at-risk students. Whether Phi Delta Kappa would have ventured into any of these areas without support from its own Educational Foundation is doubtful.

Meade characterizes foundations as "private organizations with a public trust." The test for a foundation involved with the public schools could appropriately be whether its activities have the potential for improving some aspect of schooling. Phi Delta Kappa's Educational Foundation has met that test. It has kept its "public trust." — *Lowell C. Rose*, executive director, Phi Delta Kappa

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Churning Up the Waters in Special Education

BY ANNE C. LEWIS

DURING THE 1980s education policy, once a controversial area, sailed calmer waters. Many reforms were proposed, and a great deal of legislation was churned out, but few waves were churned up.

For various political reasons, education of the handicapped survived the program scrutiny that took place elsewhere in federal education policy. With strong and vocal advocates, with loyal friends on Capitol Hill, with a burgeoning cadre of professionals in special education, and with a slew of favorable legal decisions, this area of policy and programs drifted inexorably into the "mainstream." No one liked the paperwork, education officials chafed at the costs, and there was perpetual disagreement about the regulatory aspects of the federal laws governing the education of the handicapped. But the education of the handicapped remained "off limits" to those looking for places to save money or make major changes.

As the latest amendments to the comprehensive Education for All Handicapped Children Act of 1975 go into effect this fall, things are not so peaceful. State budget cutting and federal scrimping have finally turned the scrutinizers' eyes to programs for the handicapped. (Even a new nomenclature is beginning to grow, as the latest amendments retitle the federal law the Individuals with Disabilities Act.)

The 1975 act, which marked the culmination of a decade of piecemeal legislation, promised eventually to provide from federal sources 40% of the excess

cost of educating children with handicaps. However, even in the best of years, the federal contribution never exceeded 12%. True, federal funding supported some good research, the development of new learning technologies for the handicapped, and training for personnel. But states and school districts needed more basic help. Some of the situations were unprecedented. For example, a small rural district could be devastated by a single expensive private placement for a severely handicapped child.

Because the laws require "maintenance of effort," financially strapped states cannot realistically impose a cap on spending for the handicapped. They might lower the percentage of state funding of excess costs, but that would only put heavier burdens on local districts. The costs must be covered somewhere. Moreover, given legal precedents and strong advocacy, attempts to eliminate or modify the "maintenance of effort" requirements in federal law have not been – and probably never will be – successful.

In this year's budget cutting, the only place where states could make a dent in their outlay for children with disabilities was in programs for infants and young children. By 30 June 1991, if a state wished to continue to receive federal funds for preschoolers, educational and related services were to be in place for children with disabilities from age 3 up. Few states met the deadline; many applied for hardship waivers, which are allowed if a state has passed emergency legislation to meet its own budget crunch.

The states are supposed to be in the fourth year of a five-year phase-in of interagency services for children with disabilities from birth to age 3. Many states, including some large ones, say that they cannot afford this program. Even Connecticut, where Gov. Lowell Weicker in his days in the U.S. Senate sponsored the federal legislation expanding programs to infants and young children, had to drop out of the program because of budget problems.

Some of the statistics related to the problems of infants and young children obviously helped to scare the states off. According to the National Association of Directors of Special Education (NADSE), the early estimate of the number of babies exposed to drugs before birth was 160,000 annually. Last year that figure was revised to 270,000 a year, and predictions put the total at 375,000 annually until drug use by pregnant women can be controlled. What the delay in providing services to these drug-damaged infants means is that they will show up in school-based programs with their needs largely unmet and the costs of educating them even higher.

ANNE C. LEWIS, formerly executive editor of Education USA, *is a freelance writer living in the Washington, D.C., area.*

Illustration by Mario Noche

OVER THE years the education of children with disabilities intertwined with another issue – the growing number of children who could not adapt to traditional instruction. Schools also seemed to be unable to meet the needs of these students. Consequently, we have an explosion of students who are labeled "learning disabled" (LD). They represent almost half (48.5%) of the 4.7 million children served by special education, according to the latest report to the Congress by the U.S. Department of Education.

I do not wish to suggest that there are no legitimately learning-disabled students in the schools. But the total so labeled is large enough to be suspect. So too is the erratic pattern of labeling from school to school and from district to district. For example, a Pennsylvania study found that school districts, using the same definition, labeled from 2% to 18% of their students as learning disabled.

In examining data from five cities participating in a network of urban middle schools funded by the Edna McConnell Clark Foundation, I noticed even wider fluctuations. These schools all serve a predominantly poor and minority population (with one exception); their proportions of learning-disabled students ranged from less than 3% to 65%.

"The definitions and eligibility of learning disabled do not correlate very well with placement," according to John George, a researcher with the NADSE. "Placement depends more upon how much a teacher wants a child out of a class, how knowledgeable the parents are, and the availability of space in an LD classroom."

Year after year, the Department of Education has documented the steady rise in the number of learning-disabled children. The growth correlates with an increase in poor and minority children in the schools. While frustrated teachers may feel that special education offers services that they cannot provide in regular classrooms, the practice of assigning large numbers of children to special education leaves student advocates in a quandary: they oppose unnecessary labeling of children, but they want children's needs to be met.

Several years ago the state superintendent in Iowa, Robert Benton, commented that, even though schools had to struggle to implement programs for children who needed special education, American society was the better for the effort. And the laws continue to take in more of those who in many places were once denied an education.

For example, the latest amendments extend more services to children with autism, with traumatic brain injuries, and with serious emotional problems. Moreover, the new laws emphasize transition programs that build on experiences showing that even seriously disabled students can become independent and less of a burden on society. The inclusion of infants and very young children sets a good precedent for all of education, according to Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching and a strong advocate of early childhood education.

Providing special education is the right thing to do for children denied access to any education at all – no one disputes that. However, assignments to special education have become enmeshed in other problems that face the schools. Lack of funding requires that schools make painful choices about who will be served and who will not. As federal programs for children with special needs in a given area have been cut back or have failed to keep pace with the numbers of children who need them, school districts have shifted children to programs where funds are available. For example, the number of children labeled learning disabled has increased in almost the same proportion as the number of children needing speech therapy has decreased.

Perhaps it is time to reexamine the place of special education in our efforts to provide good education for all.

Federal policies have been faulted for being more interested in the administration of programs than in their quality. Perhaps it is time to reexamine the place of special education in our efforts to provide good education for all children. K

Pett Peeves **by Joel Pett**

The Vouchers Are Coming!

BY CHRIS PIPHO

VOUCHERS, choice, privatization, and good old-fashioned free-enterprise competition – it's getting more difficult to tell what these words mean. Interest in unrestricted vouchers (public tax monies flowing directly to citizens and thence to all public, private, and sectarian schools) seems to be on the increase. But a number of fresh combinations of voucher-related concepts may signal a growing acceptance of the need to modify the current governance structure for public education.

When Paul Revere waited for the signal that sent him on his historic ride, he had only two possibilities to watch for. Voucher watchers today can find the enemy coming from every direction. Both friend and foe seem to have changed their lantern codes in the church belfry, and a few individuals have also changed the colors of their arguments.

At least one major education group is now saying that it has always been in favor of within-district parental choice – but of course it remains opposed to unrestricted vouchers. From the other side, some voucher proponents have now taken up the call to reform and restructure the public schools. They offer some variation of a voucher plan as the best way to bring about such fundamental change.

VOUCHERS FOR COLORADO – AGAIN?

People in Colorado tend to forget how many times Hugh Fowler, a former state senator, has tried to get the voucher idea onto the ballot. This time he has changed his tack a bit, but the goal is still to get 50,000 signatures from registered voters for a place on the 1992 ballot. Fowler is now the executive director of a group called Choice for School Reform, Inc. In a *Denver Post* editorial – titled "Is 1992 the Year of the School Voucher?" – he said that the education reforms suggested by Gov. Roy Romer and other "educrat gurus" only changed the tunes played for the game of musical chairs called school reform.

Fowler is proposing that parents be given the right to choose any "public, private, government, or nongovernment school" or even to educate their children at home. Parents would receive a voucher worth no less than 50% of the average expenditure per child in each district. Fowler says that this arrangement will put parents' hands on the lever that will force schools to change. His appeal for the needed signatures seems aimed at the many adults who don't have children in school but who might be sympathetic to an unrestricted voucher. Escalating school costs and poor accountability for the use of the money by the public schools will be the theme of the campaign.

Meanwhile, the Colorado State Board of Education approved three "schools of choice" projects authorized by the Colorado legislature in its most recent session. Each of the participating school districts will receive a $90,000 grant to help fund first-year start-up costs, so that tuition will not have to be charged for the enrollment of students across districts.

ANOTHER VERSION

J. Patrick Rooney, chairman of the Golden Rule Insurance Company of Lawrenceville, Illinois, thinks that business involvement in the reform of public education amounts to applying Band-Aids to a hemorrhaging school system. His company has announced that it will begin a $1.2 million voucher program to allow low-income parents to send their students to private schools.

Bearing similarities to the plan initiated in Milwaukee, the new program will start in Indianapolis by awarding private school vouchers for up to 50% of tuition (with a cap of $800) to 500 students from low-income families. Golden Rule has established a charitable trust fund with sufficient backing for at least three years and hopes to continue beyond that point with contributions from other corporations.

Polly Williams, a Wisconsin state representative who was instrumental in starting the Milwaukee plan, said of the Golden Rule effort that, if state legislatures won't support a voucher plan, then business should shame politicians into letting the people have choice. Rooney said he isn't interested in taking well-off students

CHRIS PIPHO (University of Colorado Chapter) is division director, Information Clearinghouse/State Relations, Education Commission of the States, Denver.

Illustration by Mario Noche

out of failing schools. Instead, he wants to give low-income families the chance for upward mobility.

THE FEDERAL AGENDA

President Bush's America 2000 strategy and the private American Schools Development Corporation may add a new element to the choice/voucher mix. The big question seems to be, What issue will get the most emphasis as corporate support is sought for schools that "break the mold"? If a national test takes precedence, then choice/vouchers will play a lesser role. On the other hand, if the political right presses for a strong voucher/choice program, then broad support could be generated for such voucher programs as the Golden Rule plan. Mixing the testing with a voucher plan might also be possible. If proponents argue that a new national test could show that private schools do a better job, then there could be a call for a full-scale test of the voucher plan.

However, Albert Shanker, president of the American Federation of Teachers, uses National Assessment of Educational Progress data to argue that little significant difference can be found between the private and the public schools on math achievement. In fact, he argues that, because private schools can select a higher caliber of student, they may be doing a *worse* job.

While Shanker used these data to argue against private school choice, they could also be seen as part of a win/win strategy for a federal government seeking to build support for a stronger national testing program and for a broad conception of school choice. The Administration would then be sure to get some part of its America 2000 plan. In fact, this could be the basis of a new strategy for vouchers: wait until interest in vouchers builds and then support local and state moves to test their efficacy.

However, the pressure of politics could also create some new combinations. A Democratic Presidential candidate will probably have to run on a strong education plank, if only to counter the President's actions. This could produce some unanticipated wiggles where vouchers are concerned.

For example, the proposal by the National Commission on Children for a federal tax credit of $1,000 per child to help strengthen families might bring the concept of vouchers in through the Democrats' back door. A political appeal based on the plight of families could also connect education with collaborative efforts involving welfare and social service agencies, thus throwing bipartisan support behind vouchers, which were only a short time ago viewed as the property of the political right.

But President Bush and Secretary of Education Lamar Alexander probably won't let this happen without some sort of tussle for control. As states and school districts smell the new money for the 535 model schools, many political wild cards are likely to be played. Governors jumping out ahead of congressional delegations from their own states, school districts accepting the America 2000 plan as though no state education reform had ever been proposed, and private business coming in behind federal education reform instead of local or state reforms — all of these could produce a new mix of activity. Vouchers and choice could make some remarkable gains and pick up support from unexpected sources in the coming months.

STATE ACTIVITY

Since Minnesota passed the first interdistrict choice law in 1988, 10 additional states have enacted similar legislation. In general, the open enrollment laws provide for parents to send their children to schools in any district in the state. Local boards of education cannot block students from leaving or entering a district unless the movement will upset desegregation guidelines or unless space for additional students is unavailable. State aid follows the students to the new school district, and parents are generally responsible for transporting their children to the boundaries of the new school district. However, in a few states some transportation support is given to low-income families.

Preliminary studies show that only a small percentage of families (under 1% in Minnesota) have made use of interdistrict choice. For elementary students, parents usually make changes for convenient day care. At the middle and high school levels, extracurricular or specialized curricular offerings often trigger the decision. Most states, however, have not waived rules governing extracurricular participation. For example, high school students typically are ineligible for athletic competition for one year after transferring, but they are often allowed to practice with the varsity teams during that period.

The number and kinds of options continue to grow. In 1991 Minnesota added charter schools and choice options across state lines. Miami will turn over one elementary school to a private contractor, and discussions are in progress in Cleveland and Detroit to put public school students in private or parochial schools. In countless areas of the country, districts have voluntary agreements with neighboring school districts. The real questions are, Where will all this activity end? And is a voucher program inevitable?

Few people remember that the federal government sponsored a study of vouchers in several districts in New Hampshire in the early 1970s. Under that plan, public and private nonsectarian schools would have accepted one another's students. However, local boards voted not to implement the study.

A number of factors complicate the issue of choice/vouchers. The matter of separation of church and state and the potential for litigation in a fully implemented voucher plan could slow any move to embrace vouchers. The families left behind when a voucher/choice option kicks in could face the same kinds of problems faced by today's at-risk student populations, and vouchers could inadvertently contribute to the making of a two-class society. Nevertheless, while a full voucher program may not become common in the states, a number of variations on the concept look increasingly possible. K

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Why Can't They Be Like We Were?

The many allegations that the education system has tumbled in recent decades constitute "The Big Lie" about education, Mr. Bracey charges.

By Gerald W. Bracey

SCHOOLS stink. Says who? Virtually everyone. When George Bush announced America 2000, he said that we've "moved beyond the days of issuing report after report about the dismal state of our schools." The opening sentence of Edward Fiske's recent book is succinct: "It's no secret that America's public schools are failing."[1] Chester Finn, former assistant secretary for research and improvement in the U.S. Department of Education, is no kinder: "[These] examples [of educational shortcomings] are so familiar we're tempted not to pay them much heed. Why make ourselves miserable?"[2] And, at the opening session of the annual Conference on Assessment sponsored by the Education Commission of the States, Lauren Resnick, former president of the American Educational Research Association and co-director of a foundation-funded effort to establish national standards and examinations, said, "We all know how terrible we are."

Reports about how awful we are have always issued forth with some frequency, but they began pouring in after 1983. In that year the National Commission on Excellence in Education, assembled by then Secretary of Education Terrel Bell, declared us to be "a nation at risk," awash

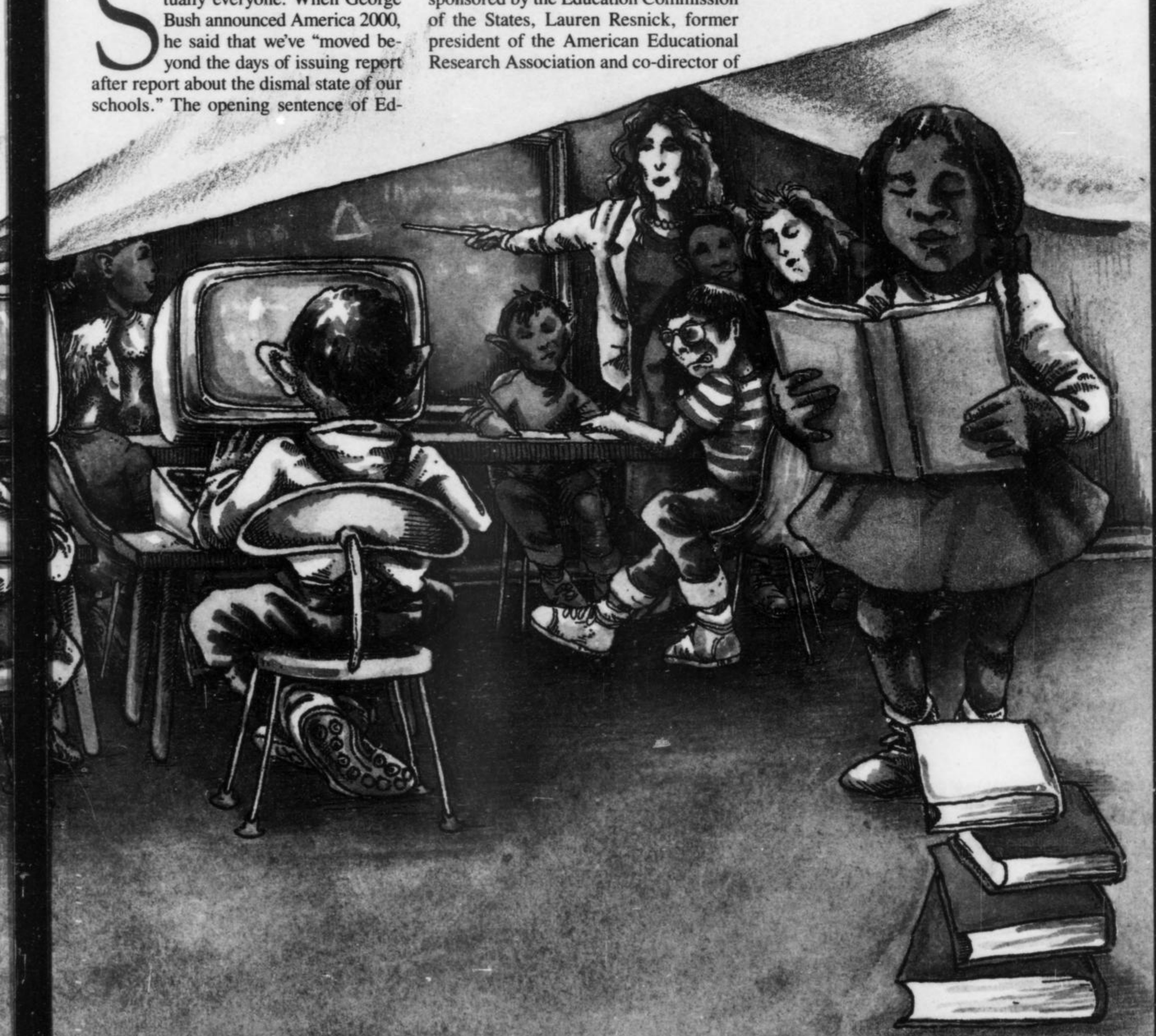

Illustration by Joe Lee

in "a rising tide of mediocrity."[3] Since then, we have been deluged with a flood tide of reports criticizing curriculum, administrators, teachers, parents, and students. "Johnny's Miserable SATs" screamed the headline of a 1990 diatribe by *Washington Post* columnist Richard Cohen.[4]

So many people have said so often that the schools are bad that it is no longer a debatable proposition subject to empirical proof. It has become an assumption. But it is an assumption that turns out to be false. The evidence overwhelmingly shows that *American schools have never achieved more than they currently achieve.* And some indicators show them performing better than ever.

The conclusions of the Bell commission simply didn't ring true.

FROM THE moment that *A Nation at Risk* appeared, I had my doubts about all the talk about mediocrity and decline. The conclusions of the Bell commission simply didn't ring true to my experiences as an educator, as a parent, or, for that matter, as a student.

As a parent, I watched my son and his buddies set off in the eighth grade in an ordinary Virginia public school to follow a course of mathematical study that would land them in calculus as high school seniors. In my own academic career, my high school math followed the usual (for then) four-year trajectory: algebra I, plane geometry, algebra II, and solid geometry and trigonometry. Calculus was considered so difficult and arcane that I had begun my sophomore year in college before I was permitted to explore the deep mysteries of derivatives and integrals.

Then came my daughter, plowing through the works of Ibsen – part of a regular offering to juniors at her Colorado public high school. Her own social condition, rather advanced when compared with that of Ibsen's heroines, prevented her from relating well to their cultural straitjackets, but neither the prose nor the themes posed any comprehension problems for her. As with calculus, Ibsen and I had not crossed paths until my college years.

Finally, each spring as the aspen leafed out in the Rocky Mountains, so did displays of paintings, sculpture, and science projects appear in the foyers of the administration building of the Cherry Creek (Colorado) School District. Many paintings revealed highly sophisticated techniques applied with considerable skill. The science projects spoke in tongues: they rendered the once-familiar dialects of physics, chemistry, and biology as strange as the Russian I had briefly explored 25 years earlier. Light years removed from the simple machines, simple equations, and phyla to be memorized in my high school days, these displays presented complicated explorations of protein absorption, gene splicing, immunological reactions, nucleic acids, and so on. Certainly, these exhibits represented the best that the district's high schools had to offer, but they were nonetheless the works of *high schoolers*.

As I absorbed these personal collisions with the Bell commission's findings, I began to bump up against statistics that contradicted the findings as well. These numbers dealt with general trends and spoke to what was happening in the nation at large, as well as in my family. The clang of these data against the Bell commission's assertions affirmed that my experiences were neither idiosyncratic nor bound by my middle-class milieu. The many allegations that the education system has tumbled constitute "The Big Lie" about education. In short, the Bell commission blew it.

WHAT DO the various indicators of quality *really* say about the health of U.S. education? High school graduation rates are at an all-time high. The proportion of 17-year-olds who complete high school rose from 10% in 1910 to about 75% in 1965 and has remained at similarly high levels since. In 1989 about 83% of all students received a diploma 12 years after beginning school.[5]

Ironically, it is likely that this very success has contributed to the perception of decline. Many of the current crop of school critics wistfully recall a "golden age" of American education, usually when they themselves were in school. But, on examination, this enlightened epoch actually turns out to be a time when fewer than 50% of the class graduated, when minorities were invisible, and when "special education" meant keeping both physically and mentally disabled students out of sight.

In those days of the golden age, "book learnin' " was clearly recognized as only one kind of learning and was often contrasted with the learning that would happen later in the "real world." There was plenty of meaningful work for high school dropouts, and little stigma was attached to leaving school early. Indeed, dropouts constituted the group from which emerged the popular American cultural hero, the "self-made man."

In those days, too, the channeling of students into college-bound and vocational tracks often amounted to virtual segregation into two schools. Moreover, such tracking often became sex segregation, since many fewer girls than boys headed for college; as late as 1965, boys outnumbered girls in college by seven to four. Of course, segregation by race was the norm everywhere.

Yet even today's 83% graduation rate is misleadingly low. It takes account only of those who graduate "on time" – those who begin in kindergarten or grade 1 and receive their diplomas 12 or 13 years later. But, unlike many countries, the United States operates "flexible reentry"

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When applicants outnumbered available jobs and college desks, dropouts could be ignored.

schools. People are permitted to come back and finish school almost any time they choose. And come back they do. In 1989, 87% of Americans between the ages of 25 and 29 held high school diplomas or GED (General Education Development) certificates, up from about 73% only 20 years earlier. Similarly, 91% of the class of 1980 had completed high school or its equivalent by 1986.[6]

Recently, there has been much weeping and gnashing of teeth over dropout rates. "The dropout problem has engaged the minds and hearts of Americans. Parents, educators, business executives, and policy makers all believe that leaving school profoundly handicaps the dropouts themselves and the entire Nation."[7] (This sentiment is typical, although I should point out that many jobs in this country virtually *require* dropouts because people with more education don't care to do them.)

However, if completion rates are high, then dropout rates must be low. They are, and they're declining for all ethnic groups except Hispanics, for whom the rate is steady. Moreover, the true figures for Hispanics are probably lower than they appear to be. In some reports that calculate dropout rates, a *dropout* is any person without a high school diploma who is not in school. Thus many undereducated *adults* who have immigrated recently from South and Central America are labeled as dropouts from a system that they never entered.

Even our notions about who drops out are off. Contrary to the popular stereotype of dropouts as largely blacks and Hispanics, 66% of dropouts are white. Sixty-eight percent come from two-parent families, 42% come from suburban high schools, 71% never repeated a grade, and 86% live in homes where English is the native language.[8]

Blacks drop out at a somewhat higher *rate* than whites, and Hispanics drop out at a much higher *rate* than members of any other group, but the *number* of white dropouts is much larger because whites are still the dominant population group in the country.

Why then do we hear so many lamentations about dropout rates? I expect that many people find it genuinely horrific that some people don't finish high school and thus effectively cut themselves off from their best chance at the good life. But I believe that some of the sorrow reflects a certain amount of opportunism, even cynicism. When the applicants outnumbered available jobs and college desks, dropouts could be ignored. Now that the baby boomers are entering their fifth decade, young workers are becoming scarce. As a result, employers have suddenly discovered dropouts and the need to save them. At the same time, colleges have discovered "nontraditional" students.

OF COURSE, it matters little that so many people are walking across the stage at commencement if we are simply handing out diplomas to functionally illiterate know-nothings who have been passed through the system by grade inflation and social promotion and who have earned their sheepskins for "seat time" served. Many articles have asserted that this is the case, but an examination of trends in test scores reveals otherwise.

We have three major sources of test information: commercial, standardized, norm-referenced achievement tests, such as the Iowa Tests of Basic Skills (ITBS); the tests administered by the National Assessment of Educational Progress (NAEP); and college admissions tests, such as the Scholastic Aptitude Test (SAT). Let us examine each source separately.

After falling in the 1960s and early 1970s, scores on standardized tests began rising in the mid-1970s – and, by 1986, some stood at a 30-year high.[9] Scores on standardized tests have continued to rise since then.[10]

It is extremely difficult to locate the causes of either the decline or the subsequent rise. About all we can say is that we cannot ascribe much of either trend to *educational* factors. This conclusion follows from the rather unusual shape of the curves of test score trends.

When we graph test scores across time, we notice a peculiar phenomenon. Suppose a group of students in one elementary grade scores higher than the previous year's students in the same grade scored. This new group then takes its higher scores along with it for the rest of its years in school. That is, if a group of fifth-graders scores higher in one year, eighth-grade scores will rise three years later, and 12th-grade scores will rise seven years later. The changes in test scores ripple up the grade ladder like waves.[11]

Changes in school factors can hardly produce such grade-by-grade progression, because any change in the school should affect all grades equally. Or, if the rise were caused by some special program that teachers in a particular grade cooked up, then the scores should fall again when the students move on. The age-related ripple effect that we observe in the achievement test data must derive from some change in broader demographic characteristics – family size, income level, and so on – of the nation.

In recent years, some observers have alleged that much of the rise in achievement test scores stems from questionable practices on the part of teachers and administrators.[12] And it is true that shady practices have occurred and that scores are higher than they would otherwise be. Under pressure to get scores up, schools have aligned their curricula with

the tests, emphasized test-taking skills, and even cheated. But such practices cannot account for the age-related ripple effect, because such practices should affect all scores, not just those of a particular age group. (Many fingers have been wagged at teachers and administrators for cheating on tests. CBS News considered it a sufficiently serious problem to merit one-quarter of a "60 Minutes" program. Less outrage has been expressed over the fact that flight times between cities got longer when airlines began to be rated on the percentage of on-time arrivals. The simple fact is that all public indicators of performance tend to be corrupted when pressure is brought to make them look good.)

Because standardized tests are subject to manipulation, many people put more stock in the results of the NAEP, commonly known as "the nation's report card." The NAEP hires and trains test administrators and maintains tight security, rendering administrative goofs, curricular alignment, and cheating all highly improbable. The NAEP also attempts to get beyond the rote recall of tiny factoids so characteristic of commercial, standardized achievement tests and instead to measure higher-order skills. Some people cite the NAEP results as proof of the decline of education.

The NAEP began in 1969. So what do 20-odd years of NAEP results look like? Overall, they are very stable. The percentage of white students scoring at the three levels of reading achievement – basic, proficient, and advanced – has remained constant since 1971. The scores of blacks and Hispanics have *risen* during the same period. Scores in writing have not changed since 1974, and those in math have remained constant since 1973. Between 1969 and 1982, scores on the NAEP science assessment fell for 17-year-olds but have risen slightly since. For 9-year-olds, science achievement was the same in 1986 as in 1969, and for 13-year-olds the decline is so slight as to be well within the range of possible measurement error.

Here's how the 1990 NAEP publication, *Accelerating Academic Achievement*, put it:

> Across all three ages assessed, overall reading performance in 1988 was as good as, if not slightly better than, it was nearly two decades ago. . . . In 1986, mathematics [achievement] had changed very little from the levels achieved in 1973. . . . Viewed as a whole, science achievement in 1986 remained below levels attained in 1969. Trends at ages 9 and 13 are characterized by a decline in the early 1970s, stable performance at that lower level of achievement through the 1970s, and improvement in the 1980s. With these gains, average proficiency at age 9 returned to that of the first assessment in 1970, but average proficiency at age 13 remained slightly below the 1970 level. At age 17, science performance dropped steadily from 1969 to 1982, but improved significantly from 1982 to 1986.[13]

The National Center for Education Statistics (NCES) calls these results "stagnation at relatively low levels" of achievement.[14] Let me observe here only that such an interpretation is subject to debate.

While NAEP results provide more reliable trend information than do standardized tests, no trends in test scores have received more publicity than those of the SAT. In 1977, after 14 consecutive years of "decline" (*decline* is in quotes because, as will become apparent, no decline exists or ever existed), the Educational Testing Service (ETS) appointed a commission to figure out why. Although the commission report ascribed a lot of the decline to changes in the population of test-takers, it also offered nearly as many potential reasons as there were points in the decline.[15] This fact alone should have tipped us off that something other than the quality of schooling was at issue here. (Of course, ETS and the College Board rightly maintained all along that the SAT *was not* an index of school quality and should not be used as such.)

Since the 1977 report, every one- or two-point change in SAT scores has been front-page news. This is more than a little surprising, given the fact that each of the two tests that make up the full SAT has a range of *600 points*. Less has been made of the fact that blacks, Asian-Americans, Native Americans, Mexican-Americans, and Puerto Ricans *all* scored higher on the SAT in 1990 than in 1975. This is true despite the fact that many more students, from all socioeconomic levels, are taking the SAT today and that many more students with bad grades in school are taking the test. As we would expect, students in the lower half of their high school class do not dazzle on the SAT. (Why are many more students taking the SAT? Because more colleges are *requiring* it, even as there is less evidence that they are actually *using* it, now that colleges have to *recruit* students rather than *select* them. A low-scoring student in 1990 had a much better chance of getting into college than a low-scoring student in 1965.)

As with achievement tests, we must exercise caution when interpreting SAT scores or changes in SAT scores. The average score on the SAT is determined by whoever shows up on Saturday morning to take the test. If the characteristics of these test-takers change over time – and they do – then interpretation of simple averages gets iffy. For example, if we look at a group of students who took the SAT in 1990 and compare them to a group with the same ethnic and gender mix that took the test in 1975, the "average" scores of the 1990 group rise significantly.

EVEN IF we are cautious in our interpretations, we can conclude that there has not really been a decline in SAT scores. It only appears that way because people have made apples-to-oranges comparisons using simple averages. To understand this point, recall that the standards on the SAT were set in 1941. In that year, those who got an average number of questions correct were assigned a score of 500, and all scores were scaled to fit into a range from 200 to 800. There is nothing magical about these numbers; they were chosen so that they would not be confused with I.Q. scores or with scores on any other existing test. All subsequent SATs are equated with this first administration. A 500 in 1991 means the same things in terms of skill levels as a 500 did in 1941.

Thus the question becomes, How similar are today's test-takers to that standard-setting group? If the students who huddle in angst over their test packets on Saturday mornings now have the same characteristics as those who filled in answer sheets in 1941, then any increase or decrease in the scores would be real.

But today's SAT-takers scarcely resemble those of 1941. In 1941 an elite group of 10,654 mostly white, mostly

male, mostly northeastern students, mostly headed for Ivy League and other prestigious private universities, sat down to take the SAT. During the 1989-90 school year, 1,025,523 students (about 42% of the entire senior class) paid for that privilege. Fully 27% of the 1989-90 test-takers were members of minority groups; many others were from lower socioeconomic groups. They came from Austin and Boston, from Orlando and Sacramento. Fifty-two percent were females, who, for unknown reasons, have not scored as well as males on the SAT. (Some argue that the test is biased against women; others contend that the males and females taking the test differ on many socioeconomic variables.) The median class rank of test-takers has fallen from the 79th percentile in 1971 to the 73rd percentile in 1989.[16]

The College Entrance Examination Board, which commissions ETS to produce the SAT, no longer has exact information about the characteristics of the 1941 group, so we can't make an exact comparision with a sample of 1990 test-takers. But we can find a sample of today's test-takers that resembles those of 1941. A group that reasonably approximates the original test-takers would be the group of white students who come from homes in which at least one parent has obtained a bachelor's degree.[17] In 1990 this group, of whom a majority were female, scored 454 on the verbal subtest of the SAT and 505 on the mathematics subtest. The drop in verbal scores from the 500 of the standard-setting group is smaller than it appears. By 1951, long before the spread of mass televiewing and other distractions, average verbal scores had stabilized at around 475.[18]

The *average score*, compiled from the scores of everyone who takes the test, has gone down because, since the 1960s, that average has included more scores of white students with lower grade-point averages and more scores of groups that have traditionally been excluded from higher education: blacks, Hispanics, and women. These groups have not traditionally scored well on the SAT, nor do they now. Yet, as the doors to our colleges and universities have opened ever wider, more and more of them have had to take the test.

Sadly, the gains that minorities have registered in the past 15 years obscure the fact that the scores of all ethnic groups (except Asians) remain depressingly low on standardized tests, on the NAEP, and on the SAT. Although the College Board and ETS like to tout the gains of minorities on SAT scores as evidence of the narrowing gap between minorities and whites, blacks have raised their percentile scores relative to those of whites by only 5% in 15 years. At that rate they will need another 50 years or so to catch up. I doubt that we have that much time. (Those who would explain the low scores of blacks and Hispanics in terms of "bias" inherent in the test are left with the difficult – I would say impossible – task of explaining the extraordinary performance of Asians. Else they must hold the equally implausible view that a test developed for a middle- and upper-middle-class white Anglo-Saxon culture just happens to fit well with the variegated cultures of the Pacific Rim.)

Data concerning the Preliminary Scholastic Aptitude Test (PSAT), a short version of the SAT, bolster the conclusion that SAT scores have not declined. Unlike the SAT, whose average depends solely on who takes the test in a given year, the PSAT is occasionally normed on a representative group of students. From the initial PSAT norming in 1960 to the most recent in 1983, the lines on a graph of average scores on the PSAT are as flat as the surface of a frozen lake. Nowhere is there any hint of a decline.[19]

In this discussion, I have not touched on one area of testing: namely, all those recent geography tests – some national, some local – that show alarming numbers of children unable to find Mexico on a map. Alas, no such tests were ad-

PSAT data bolster the conclusion that SAT scores have not declined.

"Now, now, Mr. and Mrs. Swenson, your son's grades aren't that bad."

ministered in the past. My guess is that geography is a special case and that it has always been so.

In our isolated and isolationist nation, we have always been ignorant of geography. I recall a poll taken at the height of the Vietnam War in which a certain percentage of Americans misidentified the Viet Cong. A poll taken during the Gulf War showed similar confusions about who was who and what was where in the Middle East. A poll conducted by Harrison Salisbury that appeared in the June 1957 issue of *McCall's* found that only 71% of American *college graduates* could name the capital of the Soviet Union, that only 21% could name a single Russian author, and that only 24% could name a single Russian composer.[20] This geographical obliviousness is certainly no source of national pride, but it is a condition of long standing. Who else but Americans could be laughed at by people in other countries as "innocents" or decried as "ugly"?

It would not surprise me to learn that teachers – with a finite amount of time to teach and with health education, sex education, drug education, AIDS education, and many other educations added to the curriculum – have reduced the time allotted to geography. Since schoolchildren tend to learn what they are taught, it seems likely that a great deal of geography hasn't been taught.

The various test scores that we have been considering point, perhaps more emphatically than any other information, to the conclusion that achievement in American schools is as high as it has ever been. Many argue that to stay competitive internationally we have to raise achievement, and this may be true. But to say that is to say something quite different from what critics and would-be reformers have been saying.

One final possible contention about test scores deserves some consideration. Some would concede that *average* test scores have held steady or risen slightly, but they wonder about the issue covered in a recent ETS publication, *Performance at the Top*.[21] After all, one definition of *mediocre* is average. If average scores are holding steady but our highest scorers are regressing toward the mean, then this wave could define the rising tide of mediocrity that the Bell commission thought it saw.

The Bell commission's "tide of mediocrity" does not exist.

In fact, if we look at the top scorers, the evidence once again shows us mostly steady or rising performance. It doesn't seem to matter whether we define "top performance" as the average performance of the select group of students taking the toughest tests or as the percentage of students scoring at the highest levels on those tests. Consider the following:

- From 1981 to 1990 the percentage of students taking the general test of the Graduate Record Examinations (GRE) rose 16%. Scores on most tests decline as the number of test-takers grows, but GRE subscores have all risen: the verbal score by eight points, the quantitative score by 36 points, and the analytical score by 30 points.
- The number of students taking the Graduate Management Admission Test (GMAT) also rose over the last decade. But average GMAT scores rose as well, from 481 to 503.
- The percentage of students scoring above 600 (above the 84th percentile) on the verbal subtest of the SAT fell until 1975 and then stabilized. The percentage of students scoring above 600 on the math subtest fell until 1975 and has recently returned to a level slightly above that of 1972. Currently more people score above 600 on the math subtest than one would expect, given the characteristics of the normal curve – and substantially more than would be expected score above 700. The percentage of students scoring above the 84th percentile on the American College Testing (ACT) Program tests has fallen for math since 1973 but has risen for English during the same period. The percentage receiving a composite score equal to or higher than the 84th percentile has been steady since 1973.
- The percentage of high school students taking the achievement tests offered by the College Board has also risen since 1977 – and so have their achievement test scores (from 533 to 546) and their SAT scores. Since 1977 the SAT verbal scores of those taking achievement tests have risen from 504 to 515; their SAT math scores have risen from 553 to 585.
- The number of students taking College Board Advanced Placement (AP) tests rose from 90,000 in 1978 to 324,000 (who took some 481,000 tests) in 1990. Yet the average score on these exams dropped only 11 one-hundreths of a point (from 3.16 to 3.05 on a five-point scale). Moreover, these changes cannot be explained simply by citing increases in the number of high-scoring Asian students taking the tests. While the percentage of Asians taking AP tests tripled from 1978 to 1990, the percentage of blacks doubled, and the percentage of Hispanics quadrupled.
- On NAEP assessments, the percentage of 17-year-olds who show advanced proficiency in reading *has* declined from 6.6% in 1971 to 4.8% in 1988. The percentages of students at advanced levels in math (7.4% in 1971, 6.5% in 1988) and in science (8.5% in 1971, 8.2% in 1988), however, have been relatively steady.

THE AUTHORS of *A Nation at Risk* launched a crusade for school reform by claiming that America was drowning in "a rising tide of mediocrity." *There is no such tide.* Those who penned this document were sometimes merely naive in their interpretations, but at other times they verged on being criminally uncritical about the misinformation they were fed. (One wonders whether they understood it.)

Not only are students completing high school and scoring higher on most tests, but more and more of them are pursuing degrees beyond a high school diploma.

They don't all do this immediately upon finishing high school, but they are chasing higher degrees despite having to cope with considerable economic hardships to do so. (At the same time, a report from the National Center for Education Statistics cites a decline in the number of universities offering remedial help to all students.[22])

The number of high school graduates peaked in 1977, then began a decline that is expected to last until the mid-1990s. As baby boomers passed into adulthood, fewer and fewer 18-year-olds were available to roam the groves of academe. One might have expected college enrollments to shrink as a result, but enrollment in higher education now stands at an all-time high: between 1965 and 1987 the number of males enrolled in college rose from 3.6 million to six million; the number of females skyrocketed from 2.1 million to 6.9 million.[23]

How can this be? Simple. Rather than shut down or cut staff positions after the baby boomers had passed through, universities began admitting higher percentages of applicants. Nothing is held to be more sacred by a college than maintaining its enrollment. When my peers and I applied to colleges, we waved flags in front of admissions offices, flaunted our grade-point averages and SAT scores (if we had them), and still suffered from anxiety and insecurity about whether or not we would be allowed to attend the colleges of our choice. As my children rose to their junior year in high school, with decent but not outstanding academic records, our mailbox literally overflowed with thick, glossy, full-color booklets explaining why Old Ivy U was the perfect choice for them.

One recent fall I had occasion to conduct a survey among a sample of university admissions officers. A number responded quite late, offering by way of apology the fact that fall was the height of their recruiting season. They made college admissions sound like a sport. However, the sport consists largely of beating the bushes for warm bodies; the average four-year college, public or private, now admits nearly 80% of its applicants. Only a small number of mostly small schools admit fewer than half of those who apply. Naturally, professors complain bitterly and loudly that these students do not compare with the high-quality undergraduates of the good ol' days. (But what professor doesn't prefer less able students to no students at all?)

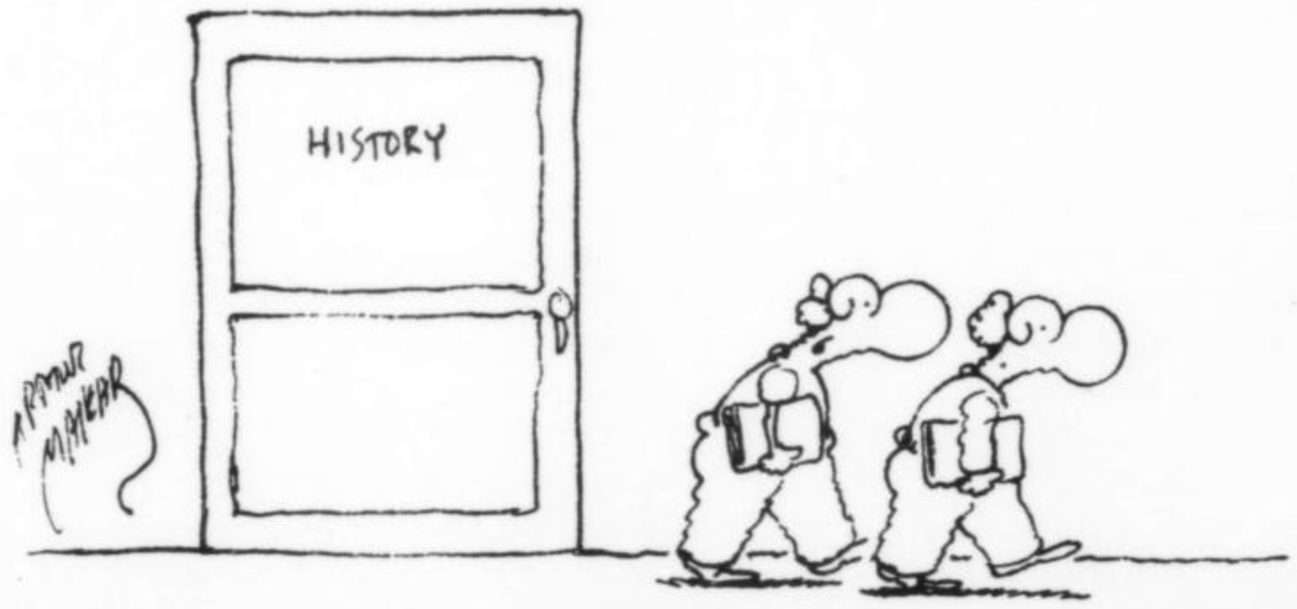
Universities have also kept their enrollments up and their faculties employed by recruiting "nontraditional" students. Currently, almost 30% of full-time college students are over 22 years of age. More than 80% of part-time college students are over 22. Only 62% of all college students attend school full-time, and only 43% obtain the baccalaureate four years after high school graduation. The typical American family is no longer the Nelsons, or the Cleavers, or even the Huxtables, and the typical American college student is no longer a callow youth.[24]

Despite the changing population, the percentage of 22-year-olds obtaining bachelor's degrees increased from 21% in 1970 to 26% in 1987. The latter figure compares well with those of Canada (25%), Japan (21%), France (14%), Great Britain (14%), and what was in 1987 West Germany (13%). Despite concern about our need to be competitive in science and technology in the future, more 22-year-olds in the U.S. obtain bachelor's degrees in science and engineering than in any of these countries. The rate of growth in the number of science and engineering degrees awarded since 1970 is higher in the U.S. than in any industrialized country except Japan.[25]

If we conducted a poll, we would probably find that most people believe that *everyone* ought to earn a college degree – or, at the very least, ought to have a chance to try. America holds this educational goal so dear and so universal that a recent report on the educational needs of those who *don't* aspire to a bachelor's degree referred to them as "the forgotten half." Ignoring for the moment the question of whether everyone has the *talent* for college, we seldom ponder the ramifications of what would happen if everyone *did* earn a B.S. or a B.A.

Overeducation poses queasy social problems because well-educated people tend to shy away from occupations that require them to sweep the streets, unclog sewers, scrub toilets, pick up trash, bus tables, or mop floors – no matter what the wages. Moreover, they don't even like to *see* these jobs being done. When I lived in Scandinavia in the mid-Seventies, the highly educated Danes and Swedes had imported uneducated Yugoslavs and Turks to do the "dirty jobs." (And, on occasion, typical racist remarks about how these two nationalities were contributing to the deterioration of the social fabric could be heard as part of "polite" dinner conversation.)

In the U.S., we avoid discussing the implications of overeducation because we fear that we may reach conclusions that clash with our ideal of equal opportunity



"Did you ever have the feeling we are all being groomed for some giant game show?"

for all. But until everyone owns a humanoid robot, as well as a car and a color television, some *person* will have to do the "dirty jobs." Until then, however loath we are to admit it, we must continue to produce an uneducated social class that will do what Kurt Vonnegut referred to in *Breakfast of Champions* as "the nigger work."

AT THIS POINT, some readers might be willing to concede that scores are up and more people are in college. However, given the amount of money we spend on education, they might also contend that we ought to see even *higher* scores and *better* college performance. I recall a picture of former Secretary of Education Lauro Cavazos standing in front of a chart showing the soaring costs of education. Overlaid on the spiraling costs was a chart of SAT scores looking lamely the same, year after year. We're not getting our money's worth, Cavazos said. That's what most people believe. But it's not true.

Only if we examine all costs lumped together does education appear to be a fiscal black hole. If we sort out the costs of *special education* from those of regular K-12 education, however, a very different picture emerges of how costs have increased in recent years. Everyone acknowledges that special education costs a great deal more than regular education. But not everyone realizes that the usual method of figuring pupil/teacher ratios for special education makes those costs look deceptively low. If a regular teacher teaches six children for six periods on one day, she is said to have taught six students. That's straightforward and is sometimes expressed by saying that the teacher had 36 pupil-contact hours (six students times six hours).

If a special education teacher teaches six children, one at a time, for one hour *each*, she, too, is said to have taught six children, though she has had only six pupil-contact hours. In addition, school systems often figure special education programs as marginal, "add-on" costs, incorporating none of the expenditures for overhead incurred simply by operating a school.

When we properly account for the number of children actually taught in the various "educations," we find that the cost of regular education (in constant 1988 dollars) has risen scarcely at all since 1970. In 1988 that cost stood at about $2,500 per pupil, up from $1,800 in 1960 and $2,400 in 1970.[26] This contrasts sharply with the current average annual per-pupil expenditure on a special education student of $17,600.[27] When we acknowledge that federally supported special education programs today enroll more than 12% of all students, we should no longer be confused by where all the dollars have gone.

A similar analysis of teacher salaries leads to similar results. Although legislators and governors have regaled us lately with tales of how much new money they have plunked into the pot of teacher salaries, teachers' annual incomes actually fell between 1973 and 1982 (in constant 1989 dollars). Since then, teacher salaries have risen at a rate very close to that for the cost of living.[28]

Other ways exist to measure costs, and only one approach makes education look at all overpriced: in raw *numbers* of dollars, the U.S. coughs up a lot for its schools. However, as a *percentage* of the gross national product (GNP), we shell out a good deal less on K-12 education than many other nations. From 1970 to 1987, public school expenditures as a percentage of GNP fell from 4.2% to 3.6%. A recent study by the American Federation of Teachers found similar results. Although the U.S. has the highest gross domestic product (GDP), as well as the highest GNP, it finished 12th among 16 developed countries in terms of expenditure for K-12 education as a percent of GDP.[29] Educators did not reap the fruits of the longest peacetime economic expansion in history.

As a percentage of per-capita income, expenditures for education rose rapidly in the 1960s, almost entirely as a result of new federal programs that were aimed at poor, minority, and handicapped students. In an interesting variation on the theme of federal involvement, the Heritage Foundation blamed the "decline" of the schools on the increased federal presence, with its attention to the "special students" and the inevitable centralization produced by federal involvement. The "proof" for this claim consisted of a chart plotting both increasing federal funds for education and declining SAT scores.

Expenditures as a percentage of per-capita income rose only slightly during the 1970s and hardly at all during the 1980s. Finally, if you compare the U.S. to other countries in terms of "purchasing power parity" – that is, how much education can be bought for a specific number of dollars (or yen or marks) – the U.S. is about average among other industrialized nations.[30]

Overall, as we scan from the federal government to the state capitals to the local town halls, there is little evidence of largesse from any governing body or of increased burden on the taxpayer for general education.

In raw *numbers* of dollars, the U.S. coughs up a lot for its schools.

SOME READERS might now object to the limited geographical scope of my analysis so far. In the global village, in the highly competitive international marketplace, the only indicators really worthy of our attention are those that compare the performance of our system of education with that of systems in other countries.

Unfortunately, such comparisons of national *systems* of education do not exist. Nor is it hard to see why. To compare systems both within and across national contexts would be very complicated and difficult – and it just might prove meaningless as well. Education has different functions in different societies.

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International comparisons have generated considerable heat, but very little light.

Thus an appropriate exercise might be to compare how well education serves each nation within the context of its larger culture. To pull education out of its cultural contexts might destroy its meaning altogether. Whatever the value of such analyses might be, to date we have had only much more modest, limited, and error-prone comparisons of the performance of students from various nations on tests. Such comparisons have generated much heat, but very little light.

Still, in recent years the school critics bashing educators and students have used no set of numbers to greater effect than those that come from these narrow studies of achievement. It was bad enough to fall behind the Japanese and the West Germans; after all, we had made them what they are today. But American students often show up trailing their counterparts from Third World nations. Such humiliation is intolerable.

Although many people continue to cite these studies, the comparisons are so flawed as to be meaningless. American students may or may not stack up well against students from other countries, but, in the studies done to date, the students are not comparable, the curricula are not comparable, the schools are not comparable, and the tests are not comparable. Even in such "straightforward" subjects as science and math, test questions do not travel well.

It should surprise no one that Japanese students, who attend school for some 243 days a year, who go to school on Saturdays, who attend "after-school" schools, and who have mothers at home pressuring them to do well, score higher than American youngsters.[31] (Whether or not American students should be in school for 243 days a year is a legitimate question that can be debated. But the simple-minded, context-free comparisons of narrow measures of achievement distort the situation.)

Likewise, it should surprise no one that Korean children, who traipse off to school for 220 days a year, score higher on the tests than their American counterparts. In addition to sitting in class 40 more days, the Koreans approach the tests differently. In one study, as each Korean student's name was called to come to the testing area, that child stood and exited the classroom to loud applause. What a personal honor to be chosen to perform for the honor of the nation!

For American students, this kind of test is a yawn. It comes into his or her life one day, then exits an hour later like a cognitive neutrino -- a chargeless, massless, unnoticed particle of information. The American student won't even get the scores – nor will the teacher or the student's parents. American students won't be praised for how well they do or scolded for how poorly. Ho hum.

Two problems concerning language differences affect these international comparisons as well. First, the language used in the examination might not be the language that all people of a given nation speak. The Second International Assessment of Educational Progress (IAEP-2), in an assessment of math and science achievement that was conducted in March of 1991, tested Soviet students in Russian and tested Chinese students in Mandarin. As reasonable as this sounds at first, these are the languages in which the *better-educated* citizens of both nations tend to be most comfortable.

Second, there is the problem of translation. Anyone familiar with a language other than English knows that translations can be tough – a word with a given meaning in English might be rendered by several different words in, say, French. Moreover, each of those French words would have a meaning somewhat different from that of the single English word.

In past comparisons, some words in English simply didn't exist in other tongues. For example, on a test requiring students to judge two words as either near synonyms or near antonyms, only about 50% of Americans chose the correct alternative for the pair "pessimistic-sanguine." Ninety-eight percent of Finnish students got it right. On further examination, researchers discovered that Finnish has no equivalent for the word *sanguine* and that the word substituted for it was the dead giveaway *optimistic*. About such problems, a spokesperson for the International Association for the Evaluation of Educational Achievement (IEA), an organization that conducts many of these comparisons, has noted, "We can only hope that the tests are equally unfair to most cultures."[32]

The international comparisons lead us farthest astray, however, when they compare American youngsters, almost all of whom are in school, with a highly selected group of students from other countries. Most countries have massive dropout rates, with many students dropping out at the end of elementary school. The IAEP-2 in math and science conducted last March will include results for students in Brazil, Mozambique, and China. Only 35% of the young people in Brazil are still in school at age 13; only 5% of the elementary students in war-

"If it's wisdom you seek, young man, you're in luck – I happen to be a guidance counselor."

ravaged Mozambique stay around long enough to reach eighth grade.[33] And China hopes to have universal education through the *sixth grade* by the end of the century.[34] While it is easy to describe (and locate) a representative sample of American students, in some countries the census data are so inaccurate and unreliable that no one can say with any certainty what a representative sample would even look like.

Moreover, many nations that do educate more than a small fraction of their students to levels beyond the early grades, such as Great Britain and Germany, make life-directing decisions early and track students into academic or job-related programs around age 13. According to the IEA, this selectivity greatly affects what it calls the "opportunity to learn." Whether the selection comes about through dropping out or through tracking, we should not compare the resulting elite groups of students to a sample of American students that represents virtually everyone.

Even where there are similar percentages of students enrolled in the same grades, we cannot assume that they are studying the same things. A far smaller percentage of students in Hong Kong study advanced math in the 12th grade than do so in either Japan or the U.S. It is thus no accident that, in international comparisons, those nations that enroll the fewest students in a given area of study score the highest: a small elite will always outperform a large mass of students.[35]

And even the way in which the tests are administered varies from nation to nation. Most countries do not use standardized tests to the extent that we do in the U.S. Giving students a few extra minutes to work on a standardized test can elevate scores substantially. Proctors who are not paying close attention to time limits have contributed to the degradation of international comparisons.

Where the curriculum itself is concerned, the U.S. differs from other countries – and not just because, as some believe, we use watered-down textbooks, assign mindless worksheets, and subject students to lectures. For example, in many countries what is judged important must be taught before eighth grade in order to ensure that most students will be exposed to the material. Thus, in some nations, eighth-graders have been taught much more geometry than have American students. While we weave geometric concepts into the curriculum at all grade levels, we *choose* to teach geometry as a course of study primarily in the 10th grade, knowing that nearly all U.S. students will still be around to take it if they want to – or if their parents or counselors say they must. Many countries cannot afford the luxury of waiting, and so their students appear to know more than American students precisely because of their higher dropout rates.

PRESIDENT Bush and the nation's governors decided that one of the national goals for education should be to make the U.S. first in the world in math and science by the year 2000. They appear to want to base this competition on test results. But if we consider indicators other than test scores, we can argue, without puffery, that the U.S. *already* leads the world in science, mathematics, and technology. Moreover, it has done so for some time and shows no sign of losing ground.

I will ignore data on the dominance of the U.S. in the Nobel Prize competition because some might object that this reflects immigration just prior to and during World War II. (Still, many winners were educated in this country, and one must wonder how such a terrible system failed to cripple them, much less managed to produce them.) However, a variety of other indicators put the U.S. out in front in math and science.

A 1976 study estimated that there were more than 40,000 professional journals in the sciences and that researchers were pumping articles into those journals at the rate of one article every 30 seconds, seven days a week, 24 hours a day, 365 days a year.[36] Americans accounted for between 30% and 40% of *all* publications in those journals of engineering, mathematics, biomedical research, physics, earth/space sciences, chemistry, and biology. No one else even came close: Great Britain, Japan, and the Soviet Union all tied for second at 8%. What's more, these figures have remained stable since 1973.[37] If our schools provided a sow's-ear education in science and math, would it be possible for our universities to turn it into such a scientific silk purse?

In a related matter, concern has been expressed in many quarters that U.S. students are not choosing to study science and engineering and that these departments in our universities are being swamped by foreigners. But our schools of science and engineering are not on the wane. The number of degrees awarded in engineering, in physical science, and in mathematics has grown from 90,000 in 1977 to 175,000 in 1987, *despite* the shrinking population of traditional college-age students.[38] (An aside from the past: the baby boomers of the Sixties scarfed up engineering degrees like no other group in history, peaking in 1970. And you thought the Sixties were all sex, drugs, and rock 'n' roll.)

In the field of engineering there is also news to cheer about concerning minority participation: *all* minority groups showed greater increases than did whites in the rate at which they obtained engineering degrees. The differences range from a low for Native Americans (who doubled the rate of increase for whites) to a high for Asians (whose rate of increase was seven times that for whites).[39]

Moreover, we remain among the most technologically oriented of countries. Only Japan and the former West Germany have comparable numbers of engineers per 10,000 workers: Japan, 188; U.S., 184; West Germany, 182. By contrast, Great Britain has 132, and France has 104.[40]

It is true that U.S. universities currently award about 50% of all doctoral degrees in engineering to foreigners. But this constitutes a great brain drain *into* the United States, for a majority of foreign doctoral recipients continue to work in this country either on permanent or temporary visas. Less than half hop a plane back to their native countries after receiving their degrees. When it comes to the world of engineering, we educate the world, and we keep the best and the brightest.

READING ABOUT jobs in the future could lead one to think that all workers will need engineering degrees. *A Nation at Risk* referred fearfully to jobs that "will involve laser technology and robotics." It continued, "Computers and computer-controlled equipment are penetrating every aspect of our lives."

In fact, the shape of the work force our schools are producing matches pretty closely the shape of the work force needed in the future (which is a good thing, since 71% of the workers for the year 2000 are already in the work force). The two studies that give evidence of how much education it will take to do the jobs of the future and how much education our students will need differ, but neither gives particular cause for alarm.

In 1985 the Hudson Institute projected that, between 1985 and 1999, 19% of the new jobs that will be created could be performed by high school dropouts.[41] Seventeen percent of U.S. students drop out (though, as noted above, not necessarily permanently). Sixty-one percent of the new jobs will require a high school diploma and up to three years of college; 60% of our current crop of young people meet this requirement. Only 20% of newly created jobs will require a college degree, and 26% of our current high school graduates obtain bachelor's degrees.

A more recent study by the National Center on Education and the Economy finds a more even distribution, with 34% of new jobs projected to require less than a high school diploma, 36% a diploma and up to three years of college, and 30% a college degree.[42] By this estimate, overeducation seems to be a more pressing problem than insufficient education.

As with analyses of dropout rates, much of the discussion surrounding the future skill levels of the work force confuses *rates* with *numbers*. It is true that the occupations predicted to have the greatest growth between 1988 and the year 2000 will require greater than average skills. But these occupations account for less than 4% of all jobs. Moreover, the projected increase is based on generous assumptions about how fast the economy will grow, and, even if those assumptions prove correct, by the year 2000 three out of four jobs will still demand less than a college education.[43]

While some surveys find employers concerned about the lack of "basic skills" that students bring with them to the workplace, other surveys find employers more sanguine. Only 5% of employers believe that education and skill requirements are increasing significantly. Only 15% report difficulty finding skilled workers, and these shortages are generally in the chronically underpaid "women's positions," such as nurse and secretary, which might be a reflection of the times. Women can now aspire to be the doctor, not the nurse; the executive, not the secretary.[44]

Listening to the rhetoric of the reports, the legislators, and the media pundits, we would conclude that virtually all our graduates leave school functionally illiterate. Eighty percent of employers *do* express concern about the "skills" of young workers – but not primarily about the academic skills they bring from school. Instead, they complain that young people lack a work ethic: they don't show up on time or don't show up at all, and they don't work hard when they're present (teachers complain about the same things). Moreover, they don't have the social skills to deal with customers and co-workers, and they don't speak proper (i.e., standard) English.

Given these complaints, it is interesting to see where business puts its money for training. While 34% of all jobs are categorized as unskilled labor, only 15% of training dollars are spent on such jobs. Skilled labor takes up another 36% of jobs, and these jobs get 20% of the training dollars. Jobs that require a college education account for the remaining 30% of jobs – but 65% of all training dollars are spent on workers in these positions.[45] The push for training in business – if dollars spent are any gauge – is not to increase the basic skills of unskilled or skilled labor but to augment the skills of the most highly trained personnel.

What's more, I wonder about the complaints that I do hear about the skills of workers. While employers talk a great deal about pushing decisions down in the hierarchy, my experience is that the relationship between most employers and their employees is only slightly different from that of a plantation owner and a slave. Indeed, the fact that only 5% of employers foresee increasing skill requirements for jobs in the future reflects this relationship and is a source of worry to the people at the Hudson Institute and at the National Center on Education and the Economy who collected the data. They argue that the only way for the U.S. to become more productive – and so more competitive – is to increase the skill levels of our non-college-bound graduates.

Most foreign doctoral recipients stay on in the U.S. to work.

WHILE THE analyses above do not convey unmitigated good news, they do convey a view of education quite different from what one typically sees in print. As readers of the notes to this article can see, the data I cite come primarily from sources available to any interested person. I can only assume that people have heard the opposite so often and for so long that they have come to assume it to be true.

Still, a number of possible rejoinders might be made to my analysis above. I will consider four here.

1. *The trends for most indicators are stable because American schools are mediocre and always have been mediocre.* One author has written of the crisis in education:

> The facts of the school crisis are all out in plain sight and pretty dreadful to look at. First of all, it has been shown that a surprisingly small percentage of high school students is studying what used to be considered basic subjects. . . . People are complaining that the diploma has been devalued to the point of meaninglessness. . . . To revitalize America's educational dream, we must stop kowtowing to the mediocre.

To reread *A Nation at Risk* eight years later is to see it as a xenophobic screed.

Although this quote has quite a contemporary ring to it, the words were penned by novelist Sloan Wilson for the 24 March 1958 issue of *Life* magazine.[46] Wilson decried social promotion, the decline of standards, automatic graduation, grade inflation, the proliferation of electives, and the neglect of intellectually gifted students. He seems not to have been aware that, in the late Fifties, fewer than half of all U.S. students finished high school.

Wilson's essay was the culmination of the first segment of a four-part series on the "Crisis in Education." The remainder of the first part compared American schools to their Russian counterparts. The results sound very much like current comparisons of American and Japanese schools. It seemed clear that, without massive reform, the Russians would deliver on Khrushchev's boast and bury us.

So it may be that to say nothing much has changed in the last 33 years leaves us still "kowtowing to mediocrity." But those who would hold this view and at the same time hold the view that education is linked to international competitiveness face the difficult task of explaining how mediocrity in one generation was linked to international economic ascendance and in another generation to international economic decline. In fact, the link between our education system and our economic productivity is tenuous at best. The connection has often been alleged, but it has never been demonstrated.

2. *The indicators are not sufficiently sensitive to detect the changes that have occurred.* This argument puts the burden of proof on its proponents, because the indicators discussed above represent a wide sampling of the only indicators we have. In fact, many of these indicators have been used to argue *for* educational decline. As we have seen, the evidence from SAT scores and from NAEP assessments does indicate a small decline in verbal skills. But this drop is scarcely the enormous calamity that the purveyors of the crisis rhetoric would have us believe.

There *is* a problem with most of the indicators: they rest on "passive" performance – that is, on multiple-choice tests. Multiple-choice tests have so dominated the field of testing in the U.S. that many people believe they have shaped the form of instruction as well. Reports abound that teaching sometimes looks like preparation for the ITBS or for the California Achievement Tests. At the same time, more people are in college than ever before, and scores on the GRE are up.

Unfortunately, historical databases on performance assessments do not exist. This means that those who argue that today's performance is down must rely on conjecture, unless someone can develop a means for estimating performance in years gone by.

3. *The performance of the education system over time is not the issue: level performance is not good enough; the rules have changed, and – to stay competitive internationally – the education system must do better.* Here I would defer to the experts in international affairs, but it doesn't seem obvious to me that the decline in our economic standing stems from problems in the schools – or will be reversed merely by solving them. Are the schools responsible for the management decisions that kept Detroit turning out self-destructing, two-ton gas guzzlers until it lost its dominance of the market? Did the schools' sloppy pedagogy prevent industry from automating until it was too late? Does the schools' failure to teach students to delay gratification explain why far too many businesspeople keep their eyes focused on the quarterly profit sheet and not on the strategic plan? Did the lack of emphasis on "basic skills" produce the savings-and-loan debacle and its coming cousins in the banking and insurance industries? Did U.S. schools somehow decree that Korean workers would toil for low wages?

To reread *A Nation at Risk* eight years after its publication is to see it as a xenophobic screed that has little to do with education. Consider the now-familiar opening:

> Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world. . . . What was unimaginable a generation ago has begun to occur – others are matching and surpassing our educational attainments.[47]

"Surpassing" is surely questionable and so is "unimaginable a generation ago," when, of course, our bugaboo was the Soviets and their schools. And elsewhere this first paragraph does acknowledge that education is only one of "many causes and dimensions" of the problem, though one that "undergirds American prosperity, security, and civility." But the real question to ask of the Bell commission is, Why on earth would we expect anything else?

The Marshall Plan was designed to get countries that were defeated in World War II back on their feet. Should it surprise us that our "preeminence," established largely through military success, should have faded somewhat as other countries began to strive for the "good life" as America has defined it? Certainly it would have been silly to expect anything else. The Bell commission makes it sound as though our "unchallenged preeminence" should remain unchallenged forever, calling to mind the Manifest Destiny that fueled our push to the Pacific more than a century ago.

Whatever the failings of our schools, one thing is clear: the link between education and international competitiveness

is as tenuous as that between education and economic well-being.

4. *After almost a decade of reform, test scores should be going up, not merely remaining stable.* This is a charge that cannot be answered at this time. It is probably too early to tell with any certainty just what came of the reforms of the Eighties, although three authors from widely disparate political positions have judged the reforms to have produced little or nothing.[48] Linking changes in the indicators I've cited here to reforms involving some form of "restructuring" is still more difficult. On curricular reforms, such as those undertaken by California or those recommended by the National Council of Teachers of Mathematics, data are not yet available.

There are plenty of problems in education that we ought to be working on. But we should be dealing with them because, like Everest, they are there. Americans have a natural inclination to seek improvement that often tumbles over into perfectionism. Good! Let's work to make things better. But let's not do it while telling people in the schools what a crummy job they're doing.

A snippet from *The Fantasticks* forms the title of this essay. The entire refrain goes, "Why can't they be like we were, perfect in every way? Oh, what's the matter with kids today?" Listening to many of the critics of the schools sets me to humming this ditty. Given that it was written in 1960, when many of us were kids, shouldn't we be just a little more reluctant about pointing out what's wrong with the current crop of kids?

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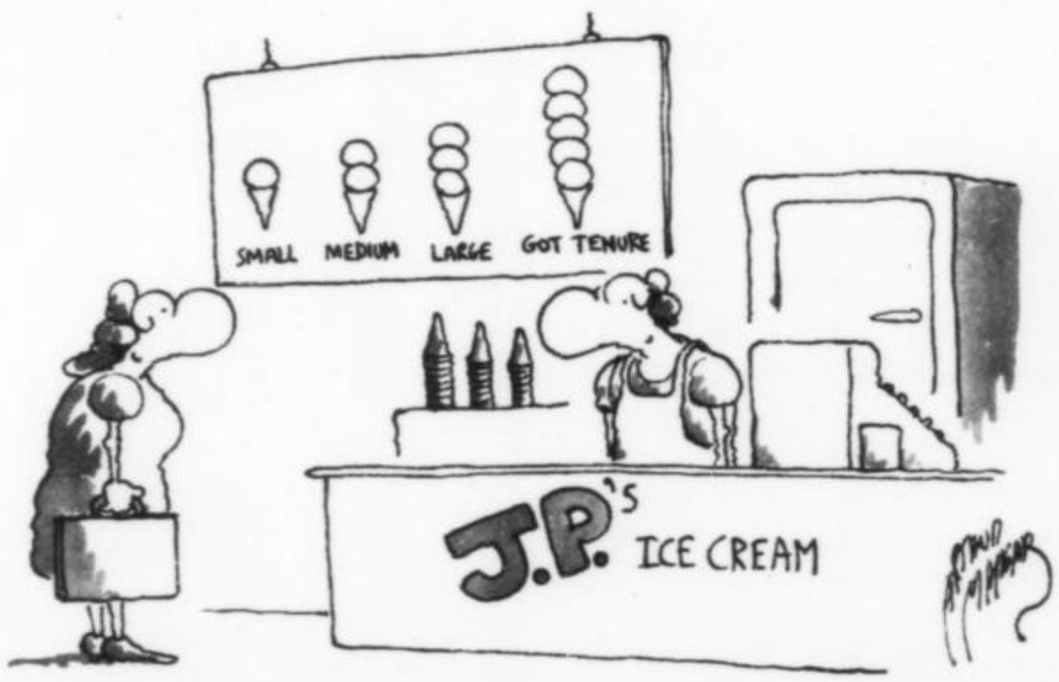

The Need to Broaden Our Perspective Concerning America's Educational Attainment

Mr. Kirst wonders why the "international education olympics" end at age 17. He suggests some possible comparisons that might make us look better.

By Michael W. Kirst

ALLEGATIONS about the low performance of U.S. students compared to their counterparts in other nations repeatedly surface in the media. For example, in a recent survey by the International Association for the Evaluation of Educational Achievement (IEA), the U.S. ranked 15th in science in a field of 17 nations. This low showing internationally is now accepted by policy makers and repeated as part of the conventional wisdom. Business leaders point with alarm to the declining skills of the labor force and proclaim that the U.S. economy will lose out to Asian and European competitors.[1]

There may be cause for alarm, but the current policy discussion is partly misleading because it does not analyze what happens to U.S. students and their international counterparts *after high school*. Similarly, the National Education Goals Panel needs to assess the performance of the entire U.S. education system, not just that portion of it devoted to students up to the age of 18.

Such indicators as the IEA assessment, the National Assessment of Educational Progress (NAEP), the Scholastic Aptitude Test, secondary school standardized achievement tests, and state assessment programs all ignore the value added by the postsecondary education system. But in the international arena, the United States' strongest suit is probably its entire postsecondary education system,

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Illustration by Joe Lee

including community colleges, trade schools, and universities. For example, in 1985 the U.S. spent a higher percentage of its gross national product on higher education than any other country in the world. Moreover, U.S. spending on higher education as a percentage of *all* education spending (including K-12) was 39.4%, compared to 20.8% for West Germany and 21.4% for Japan. The principal reason for the high level of U.S. spending on higher education is that the proportion of the population participating in higher education is larger here than in any other nation. But the U.S. per-student expenditures in higher education are also at the top. For example, in 1985 California spent about $6,500 per pupil for higher education, compared to $4,250 spent by West Germany.[2]

Why does the international education olympics end at age 17? Why don't we compare postsecondary systems and see if the U.S. is not like football teams that are behind at half time but catch up with the competition late in the fourth quarter? While it is quite possible that the U.S. would fare even worse if we were comparing 25-year-olds rather than 17-year-olds, I will suggest here some possible comparisons that might make us look better.

Newspaper headlines decry the U.S. dropout rate and point to numbers as high as 30%. But the General Education Development (GED) examination that adults study for in a variety of settings, including community colleges and the military, helps bring our graduation rate up to 87% by age 29. In 1989 the high school completion rate was 81.1% for 19-year-olds, 86.5% for 24-year-olds, and 86.9% for 29-year-olds.[3] In those figures we can see the U.S. practice of giving students a second chance after age 16, which is not common in Europe or Asia.

We could also look at the total years or days of school attainment up to age 25 or beyond. Much is made in the press about our 180-day elementary/secondary school year compared to a school year of 240 days in Japan. But it is rarely mentioned that the U.S. graduates the highest percentage in the world of 24-year-olds from a four-year college or university. As Table 1 shows, our particular edge is with females: the U.S. graduates 24% of its women by age 24, compared to 12.4% in Japan and 10% in West Germany.

Many studies have emphasized that U.S. students complete little homework and do not work hard at academics in high school.[4] But U.S. students are often confronted with a demanding academic regimen in college. The adjustment to the academic pressures of the university in freshman year can be dramatic and difficult, but many students make up for ground lost in high school.

The more difficult postsecondary experience in the U.S. contrasts sharply with the situation in Japan, where the university years are viewed as a time to take it easy between the intense academic pressure of high school and the demands of Japanese business. Japanese universities are not as challenging as those in the U.S., especially for many women who take a less rigorous academic curriculum that prepares them for homemaking.[5] A 1988 study of teacher education students in the U.S. and Japan concluded:

> Although American students seem to know less about global issues than Japanese students at the beginning of college, by graduation they are performing as well. This is attributable to a considerable positive difference between U.S. freshmen and seniors, and a small difference between Japanese freshmen and seniors. This finding corroborates recent statements by Japanese scholars expressing concern about the quality of higher education.[6]

TABLE 1.
Higher Education Graduates As a Percentage of All 24-Year-Olds

Sex and Nation	Year	All Fields
Males		
Japan	1988	33.4
U.S.	1986	25.0
Canada	1987	20.6
England	1986	16.0
W. Germany	1985	15.3
France	1987	14.3
Females		
Japan	1988	12.4
U.S.	1986	24.0
Canada	1987	23.3
England	1986	13.0
W. Germany	1985	10.0
France	1987	14.5

Source: National Center for Education Statistics, *The Condition of Education 1990, Vol. 2, Postsecondary Education* (Washington, D.C.: U.S. Department of Education, 1990), p. 34.

The preeminence of U.S. graduate schools is widely recognized.

The preeminence of U.S. graduate schools is widely recognized. The U.S. attracts a large number of foreign students, and our most prestigious research universities are certainly competitive by world standards – many consider them to be the best in the world. Is there a better technical university in Japan or Germany than MIT, Cal Tech, or Stanford? Given the overall quality of all U.S. research universities, it is likely that some of the international academic gap is closed at this final stage for our most outstanding science and math students.

I BEGAN to question the conventional wisdom after closely observing the marvelous growth in the economy of California between 1980 and 1990. The state's total population went from 23 million to almost 30 million – growing by the equivalent of the total population of Virginia or Massachusetts. The economy generated more than 350,000 new jobs each year and increased its economic diversification and strength. In order to meet its robust demand for labor, California imported unskilled workers from all over the world and from other parts of the U.S.

The strength of California's postsecondary education system is well-known. Part of its success is attributable to the ease of transferring credits from community colleges or adult education programs to colleges or universities. But the open access of the California postsecondary system is also notable and surpasses what I have observed in Europe and Asia. Community colleges are located all over the state and start or adapt classes to meet the needs of industry. Moreover, community colleges and adult education programs start educating the students from whatever base they require. If an immigrant from Mexico did not complete grade school, there is an appropriate educational program for that student. Unlike California high schools, community colleges use the latest vocational education equipment and are staffed by teachers who currently work in industry.

Perhaps the highly touted German apprentice system is better, but I doubt whether the California adult education system ranks near the bottom in the industrialized world! The U.S. postsecondary vocational education system is especially important because, as a recent national survey concluded, American industry invests very little in upgrading its work force. U.S. businesses make a big investment in management training, while Germany stresses apprenticeships for those members of its work force with the fewest years of formal education.[7]

A popular contention is that Japanese and German workers are significantly more skilled than their counterparts in the U.S. The current policy debate focuses on the connections between high-quality education, the productivity of the labor force, and economic growth. If there is a connection between high-quality education and a vibrant economy, then California education must be doing something right. Yet, by conventional measures, the California elementary/secondary system is average for the U.S. in terms of inputs and of student outcomes.[8] Certainly, no one has called the California elementary/secondary system world class. Perhaps the theory of linkage between education and economic growth is weak, or perhaps the conventional measures of educational quality miss something – like postsecondary education. Another possibility is that the current poor performance of high school students in California will manifest itself in an economic decline in the future.

There are clearly problems posed by a mediocre elementary/secondary system. It is inefficient and costly for students to loaf through high school, work at a menial job until their 20s, and then repeat the 11th grade at a California community college. While the GED is helpful, many adults experience a very poor quality of life before they finally earn a high school diploma. Only a rich state like California can afford high school remediation at expensive universities and can assume the financial burden of allowing adults to take high school courses over again. The low levels of education found in big cities and among minorities are appalling and are a factor in America's weak showing in international comparisons of least-skilled workers.

These problems, however, should not obscure the basic argument that international tests of 17-year-olds and other comparisons, such as high school homework and length of school year, may not be indicative of the international competitiveness of the *entire* U.S. education system. The large cohort that completes college might be more competitive internationally than we think, and, given the ease of access to U.S. higher education, the majority of other adults might be better educated than we have been led to believe. Moreover, there are some serious criticisms of the sampling, reliability, and validity of the much-ballyhooed international tests, such as those given by IEA and the International Assessment of Educational Progress.[9] The whole area of international education comparisons is easily misunderstood.[10]

The U.S. national goals for education for the year 2000 do not address the type of postsecondary comparisons stressed above. While U.S. universities are under attack for having large classes and for underemphasizing the quality of teaching, numerous articles criticize the quality of undergraduate instruction in other nations as well. If we are to rely so heavily on international academic comparisons and indicators to guide our new policies, then the comparisons should include *all* levels of the education system. If other nations invest more at the "front end" (ages 0-18) than they do for adults, then the U.S. should certainly explore whether prevention is more cost-effective than remediation. Nevertheless, the national goals panel needs to keep a broader view of educational attainment in mind as it devises the indicators of U.S. educational progress.

"I knew Sir Walter Scott wrote Ivanhoe, *but who the dickens wrote* A Tale of Two Cities?"

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A Vote of Confidence For the Schools

What do the 649 pages of data generated by the Gallup Organization in its latest education poll tell us about the public's attitudes toward the public schools? For some pleasant surprises, read on.

By Lowell C. Rose

THERE HAS been a good deal of publicity recently about how bad the public schools are, about the extent to which they are failing, and about the reluctance of some of our leaders to "throw more money" into the system. It was, therefore, with some concern that I sat down to study the 649 pages of data generated by the Gallup Organization in the latest poll of the public's attitudes toward the public schools. And it was with surprise and pleasure that I got up, three hours later, aware that the public believes that its schools, though not perfect, are doing a reasonably good job.

The question in the poll that taps most directly the public's attitude toward the schools asks respondents to rate their local schools on the same scale that schools use to grade students. Forty-two percent of those surveyed give the schools in their community an A or a B. Another 33% assign a grade of C. Only 5% say that their local schools are failing. These are reasonably modest results – but the grades get higher as respondents get closer to the schools.

Fifty-one percent of the parents of public school students give the schools in their communities an A or a B, while only 4% assign a failing grade to their local schools. The proportion assigning an A or a B shoots up to 72% if public school parents are asked to assign a grade to the school their oldest child attends, and the figure rises to 81% if the rating is made by parents who have three or more children in the public schools.

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Illustration by Joe Lee

If the schools are failing so dismally, one would expect the public to be highly critical of the results they are producing. But the data indicate otherwise. Of those surveyed, 51% believe that students from the local schools would make an average score on nationally standardized tests. Another 17% believe that local students would be above average, while 25% believe they would be below average. (That the public perceives the products of the public schools as average is not a vote of confidence; however, it offers no support for the idea that the schools are failing completely.)

Once again, the closer the public gets to its schools, the higher the approval rating. Of respondents with children in school, 40% say that their oldest child is about average in his or her grade, and 29% say that their oldest child is above average. Twenty percent place their child at or near the top of the class. Forty-three percent believe that their oldest child would score above average on nationally standardized tests, while 41% believe that their child would earn an average score.

What about the public's attitude toward teachers? Teachers rate far higher than the schools. Fifty-three percent of respondents give the teachers in their communities an A or a B, and only 3% say that teachers are failing. The percentage of teachers earning an A or a B jumps to 64% among public school parents, to 71% among parents asked to rate the teachers in the school their oldest child attends, and to 81% among parents with three or more children in school. When asked how many teachers in the school their oldest child attends are mediocre, 28% of public school parents say none at all, and 45% say only a few.

And what about the training of teachers? We hear a great deal about those "useless courses on how to teach." The public does not buy that line. Of those surveyed, 88% believe that education courses are either very useful or fairly useful. While 40% say that the ability to teach is a natural talent, 25% believe it to be a result of college training, and 32% see it as a combination of talent and training. Clearly, the public is not ready to abandon teacher education.

Finally, is the public willing to invest in its schools? The data suggest that the answer is affirmative. A majority of the public supports raising salaries for teachers: 54% for all teachers and 69% for those who are particularly effective. A majority (55%) favors preschool programs for 3- and 4-year-olds, at taxpayer expense, for those parents who desire the service. And, contrary to most speculation, 55% favor a sales tax increase of 1% dedicated specifically to the public schools, while 50% favor a state income tax of one-half of 1% dedicated to the schools.

Why, if the schools are so bad, does the public not see it that way?

ANY rational person would ask why, if the schools are so bad, the public does not see it that way. Perhaps the public is misinformed, doesn't understand, or has been misled by its own natural optimism. However, equally plausible is the possibility that our public schools are not nearly as bad as many critics would have us believe and that the public's relatively balanced view of the schools is reasonably accurate.

And balanced it is. The poll data make it clear that the public wants improvement. It wants greater accountability, more attention to standards, and better discipline in the schools. It wants better administration and a stronger voice in what schools are doing. However, the difference between the public and many of the critics of schools is that the public clearly believes that the necessary changes can be made within the existing structure.

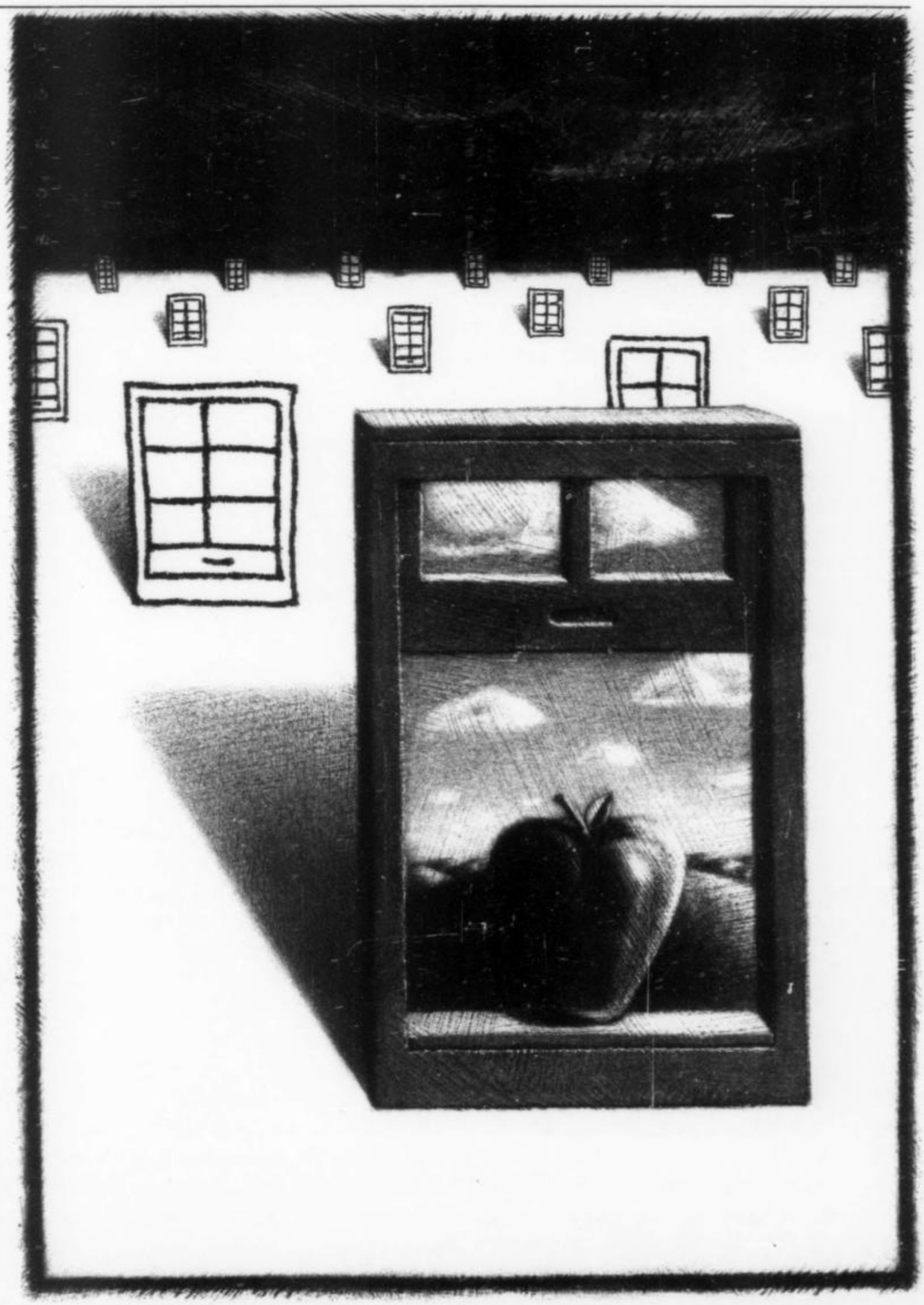
Meanwhile, the accepted wisdom among many politicians is that the public simply will not provide additional funds for the schools. The poll results belie that notion. They indicate that there is strong support for providing a high-quality system of public education. Eighty-nine percent of the Gallup/Phi Delta Kappa poll respondents see education as very important to the nation's future, and 9% see it as important. The public attaches far greater importance to education than it does to developing the most efficient industrial production system in the world or to building the strongest military force in the world.

At least half of those surveyed say that they are willing to pay taxes for the purpose of improving the public schools. This fact suggests that the problem is not so much a lack of public will as a failure of leadership on the part of our elected officials. A leader's job is to build a consensus in support of his or her policies. The poll data suggest that it would be easy to build a strong consensus on behalf of the public schools if our leaders but had the will to do so.

Finally, we have heard much about the Administration's proposals to allow parents to choose the schools their children attend. The public strongly supports this concept as long as the choice is among public schools. People want to be able to choose. However, the most significant expression of public opinion in this entire poll may be that 68% of those with children in the public schools say that, if given unrestricted choice, they would continue to send their children to the schools they now attend. Parents who say this, knowing that the future of their children is at stake, are expressing a great deal of confidence in their public schools. K

Restructuring Schools: Some Questions for Teachers and Principals

The movement to restructure the schools has opened a remarkable window of opportunity for educators, in Mr. Barth's view. He urges them to "think otherwise" and thus to take advantage of the situation, which will probably prove to be fleeting.



By Roland S. Barth

RESTRUCTURING has suddenly become both a source of hope and a platitude in our profession. It's a big tent under which many people are doing and saying many things. It is a concept that means different things to different people and may, therefore, be in danger of becoming altogether meaningless. At the same time, restructuring has become a watchword for all of us who care deeply about good schools. I find here a remarkable window of opportunity for educators. For me, it is the most exciting moment in 30 years in this profession. I'd like here to address school-based reformers – teachers and principals – about restructuring.

When I was teaching fifth grade and then as a school principal, I used to hear

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Illustration by Rich Borge

a statement in the teachers' room that infuriated me. We've all heard four-letter words. This was a four-word sentence, predictably uttered every time any of us came up with a new idea. "They'll never let us." That sentence was a wet blanket against which we fought to rekindle our enthusiasm and against which we continue to fight. I never knew who "they" were, nor did I ever seek to find out. I discovered that if I could identify a practice that I thought was in the best interest of students, if I had a pretty clear rationale for it, and if I could enlist the support of other teachers, parents, and administrators, I could usually act on it, and "they" would never reveal themselves.

Well, things in schools have changed dramatically. Now "they" not only permit us to proceed with a new idea, they *expect it* of us. As one principal recently put it: "If I had shared my vision of a school 10 years ago, I would have been locked up. Now, I can't get a job without a vision."

A wonderful definition comes from medieval German universities for the word *professor*: "one who thinks otherwise." In this era of restructuring, you teachers and principals are invited to be professors – to think otherwise. Thinking otherwise does not necessarily mean thinking big rather than small about good education. It means thinking differently. Let's say you don't like the taste you get when you lick postage stamps. You could think big and try to get the U.S. government to use mint flavoring. Or you could endure years of revulsion or curtail your correspondence. But how about doing what one teacher did – lick the envelope rather than the stamp. *That* is a "paradigm shift."

Recently, I visited Alaska. In Juneau, a city where rain is more plentiful than sunshine, schools are occasionally shut down, not for "snow days" or "rain days" but for "sun days." In Fairbanks I found a school thinking otherwise. In contrast to what I consider the demeaning practice of being adopted by a business, this school adopted a shopping center. There were as many shops in the center as classrooms in the school, so each class adopted a shop. Fourth-graders cleaned the cages of turtles and hamsters in the pet store. Others rearranged displays in the five-and-dime. The shopping center, as you might expect, took a sudden interest in the school. The stationery store designed and printed a new school letterhead. The drapery shop spruced up the teachers' lounge. Everyone wins.

Another school discovered that many students are more comfortable with and know far more about computers than most adults. In this school, these students are now called "teachers." They give regular instruction in word processing to many other students – including teachers, parents, and administrators. The school is becoming a community of learners in which everyone, children and adults alike, engages visibly and simultaneously in its most important enterprise. Think otherwise.

I vividly recall hearing another common response from children when I was a teacher and from teachers when I was a principal. I found it as troublesome as the defeatist four-word sentence. This one was a question: "What am I supposed to do?" For some reason, occupants of schools seem to fill the place of what researchers call the "dependent variable." What I do is in response to what someone else tells me to do. Or, as one observer put it, "Most of what teachers teach is of no real interest to them – it is only what teachers think someone wants students to know." Restructuring invites teachers and principals to become independent variables, to initiate as well as to respond. With this invitation comes a remarkable opportunity.

YET, DESPITE the extraordinary promise of school restructuring, I find this concept already "at risk." Let me share my concerns with you teachers and principals and perhaps clarify the concept of restructuring by posing nine questions. Why questions? Because I don't know the answers; I only know that these issues seem important and troublesome. Why nine? Because at Harvard I have learned that, as soon as someone says, "I have a list" of a certain number of things, everyone in the room sits up attentively and begins to take notes. So, nine questions.

1. What is the logic behind the concept of restructuring in your school? If what, then what? A clear logic is not apparent to me in most restructuring efforts. I suspect that this is because there is not one logic but several, all tangled and confounded. Let me try to disentangle a few.

Thinking otherwise does not necessarily mean thinking big rather than small about good education. It means thinking differently.

Kick-the-radio logic. Schools, especially urban schools, are seen as so helpless, so hopeless, so broken that it seems there's little to lose by giving them a good, hard kick. To use a dated metaphor, it's like kicking a broken radio. Perhaps the tube filaments will align by chance in a different way, and the radio will work. In any case, since it's already broken, what is there to lose? I see elements of this logic in some legislation born of frustration and in some random assaults on the schools.

Sled-in-the-snow logic. Schools are like a sled frozen in ice. Small pushes and tugs – 45- instead of 55-minute periods, 200 days a year instead of 186, new math texts instead of old – will not budge the sled. These are mere tinkerings. The logic, in the words of Adam Urbanski, teacher union president in Rochester, New York, is that "the system *cannot* change incrementally. It has to be *shocked* out of existence." A critical mass is needed to dislodge the sled.

Everybody-wins logic. Schools are highly political institutions, full of groups interested in their own agendas. The reason the schools are so mired in what Theodore Sizer calls "sustained paralysis" is that there is a fear that any change will adversely affect *some* group, which will, in turn, thwart the change. And, as we all know, teachers and administrators are gifted and talented at subverting unwelcome change. Is it possible for fundamental change to be linked with desirable

outcomes for *everyone* – recognition, compensation, dignity, participation? A head teacher's position with a salary of $70,000 a year, lead teachers, parent involvement, shared decision making, student government? If everyone wins and no one loses, then no one will undermine promising new ideas, and the schools *will* change.

Business logic. Japanese businesses are outpacing American businesses. The way to fight this war is to run your school more like a business – not an American business, but a Japanese business. Quality circles, cooperative learning, shared leadership, quality control, highly disciplined workers. Modern management science *must* be good for schools, because it sells more Toyotas than Fords.

I'm sure there are more logics or logic fragments out there. But I believe the most important logic for the success of your school's restructuring effort is your *own* logic. There is a pressing need to spell out assumptions about schools as organizations, about people, about learning, about the purpose of education, about the future. Each school needs to formulate a logic unique to its restructuring effort. In order not to be muddled by the plethora of logics out there, every school needs its own. I'm convinced that a school can develop and clarify its logic about change, articulate it, and continuously scrutinize and refine it. So, what, then, *is* your school's logic about change upon which your restructuring effort rests?

2. Do you really believe schools need a complete overhaul? To what extent are you contemplating restructuring because you *really believe* that the way you go about teaching or running a school needs a complete overhaul? To what extent are you considering restructuring because external forces such as businesses, legislatures, and national commissions tell you to do so? The structure of schools hasn't changed much in 150 years. If we educators really believed schools needed an overhaul, why didn't we do anything before now? If there were no *external* heat, would the restructuring pot be boiling today?

I heard of a study in which about 75% of the teachers and administrators polled thought schools in the U.S. were in deep trouble and in need of fundamental change. But less than 25% of the same sample felt that their *own* school was in any serious difficulty. These numbers don't add up. Is restructuring like a nuclear power plant – a good idea but *not in my backyard*? Could it be, as one mother and teacher observed, that "the only person who welcomes change is a wet baby"?

So far, the nation's schools that have gone furthest toward restructuring are in such urban districts as Chicago, Miami, Milwaukee, and Rochester, New York. What about those of you in suburban or rural areas where many people think schools are performing adequately? Do you really believe *your* school needs a total overhaul – or just an oil change? The implications of believing that only other schools are in trouble or that restructuring is necessary only at gunpoint have obvious consequences for the future of restructuring. This leads me to a third question.

3. Are you teachers and administrators prepared to acknowledge your contributions to the problems of schools and to restructure your assumptions and practices? Let me share the conclusions of a few sobering studies. The investigators in one study judged that 85% of kindergarten children are creative but that by second grade only 10% could be considered so. Another study suggested that about 80% of students entering first grade feel good about themselves; by sixth grade, 20% feel good about themselves, and by high school, only 5%.

In Alaska, I heard a Native American elder from a small tribe lament:

> Our children no longer listen to us at home because they are no longer allowed to speak or write our native language in schools. How *could* they listen to us? Before our people went to school, we worked together hunting a seal or skinning a caribou. In school, we learned that to cooperate is to cheat. Before the schools came, we were a spiritual people. We believed that animals, plants, and people were all living beings. We had a reverence for life. Indeed, the *essence* of our life was spiritual. Now everything is cognitive. Our children used to dance and celebrate and be filled with joy. Now they must sit still in their seats, where they face a never-ending parade of abstract learning and symbols.

These discouraging observations suggest that schooling is, in many ways, a *subtractive* process that forces students to give up their cultures, relinquish their creativity, and demean themselves in order to succeed or merely survive.

A major purpose of schooling is to take youngsters at risk and, through a variety of interventions, remove them from this peril – and to prevent others from ever becoming at risk. A colleague at Harvard has been doing some research trying to figure out exactly what causes students at school to become "at risk." She's corroborating the common wisdom that race, social class, single-parent fami-

"Your son will get better grades if you show an interest in and respect for education. Screaming and yelling will help, too."

lies, and lack of medical care are all contributing factors. But the major factor in students' lives that leads to depression, dropping out, drugs, jail, and suicide appears to be the *school experience*: ability groups, grade retention, college pressures, working alone, denial of strengths and focus on weaknesses, learning that is information-rich and experience-poor, and an irrelevant curriculum that students must endure and frequently ignore. All of this suggests to me that we educators are a major *part of the problem* rather than merely the helpless victims of cultural circumstances.

Most schools continue to serve well a 1950s world with whole-group instruction dominated by teacher talk, question-and-answer textbook format, restricted student movement, 45-minute periods, and rote conveyance of facts.

What do you think? Do *you* believe that the problems of schools and the profound transformations in our society and in our students are sufficient to require equally profound changes in *your* school and in what *you* do there?

4. Can schools restructure themselves? A chilling assumption seems to lie behind much of the reform movement of the past decade: schools are not capable of improving themselves. Why else the need for so much legislation, for a "Paideia proposal," a "James Madison High School," and all the other well-intentioned plans offered by those outside the schools? The advent of school restructuring appears to have brought with it a sudden confidence that teachers and principals, with the help of parents and students, can get their *own* schoolhouses in order. School-based management, for instance, is built on this belief. But why this dramatic shift in thinking about the capacity of schools to reform themselves? Are schools in the Nineties really any more capable of self-help than were schools in the Eighties or Seventies?

A prominent eastern philosopher, Yogi Berra, once observed, "I can't hit and think at the same time." What about a teacher or a principal? Can you maintain an already overloaded, complex, and demanding classroom or school and *in addition* become a serious architect, designer, and engineer, dismantling one operation and substituting another? Terrence Deal calls this "negotiating the trapeze transfer." He says that "we must successfully negotiate the space between clinging to tradition and embracing a new world view." Yet the idea of living simultaneously in an old place of 45-minute periods while you are jumping to a new one of interdisciplinary units or shared leadership is very difficult – akin to redesigning a 747 . . . in flight.

Are schoolpeople, like others in the past, going to create policies that insult the capable and leave the incompetent untouched?

If school practitioners are to become the new reformers of the Nineties, if you are going to "negotiate the space between," I believe you will have to be inspired more by your own visions of a good school than by the prescriptions of others. If you don't have this confidence in yourselves, you can expect little from others. It has long been held that the priest is incapable of reforming the priesthood. Many believe the same to be true of education reform. For instance, when corporate officials look at the public schools, they see obsolete, inefficient, and bankrupt factories. A recent article in *Business Week* concluded with these words: "To survive . . . , America's public schools must be totally restructured top to bottom. And they will not restructure themselves. Only a powerful, outside presence will lead to that."

Your job, then, is massive – not only to strengthen confidence in yourselves and the confidence of others *in you*, but also to help those outside the schools figure out how they can aid the efforts of those inside the schools. You will have to "staff develop" officials in state departments of education, in universities, in the federal government, and in the district office so that they will provide the kind of help you need in order to successfully improve your school. A formidable lesson plan.

You will have to confront very real questions, such as, Do you restructure schools with only the best and brightest teachers and principals in mind, or do you grapple with the reality of deadwood and incompetence? Do you acknowledge the presence in schools of those who are pleased to be led as well as those who want to exert leadership? Are schoolpeople, like others in the past, going to create policies that insult the capable and leave the incompetent untouched?

There are many out there who are rooting for you, if not confident *in* you. Is your school capable of restructuring itself? What do you think?

5. How can you build a school improvement team from a cast of bright, stubborn, willful, idiosyncratic characters? All restructuring efforts I know of are based on the assumption that serious change will come only from a collective effort – e.g., a school team, a school improvement council – which stimulates, envisions, observes, plans, implements, and monitors change. In Chicago, for instance, each school has a school leadership team consisting of two teachers, six parents, two community members, and the principal. Yet, as we all know, putting two teachers, six parents, two community members, and a principal around a table does not a team make. It makes two teachers, six parents, two community members, and a principal. Through what alchemy is a disparate, sometimes desperate, group of individuals, accustomed to trying to have it their own way in a small domain – say, behind the door of a fifth-grade classroom – going to learn to work together in the best interests of the larger domain?

The formation of a school team requires developing group process skills in running effective meetings, in consensus building within the team and within the school, in securing and utilizing resources, and in developing action plans and evaluating outcomes. A precondition for successful restructuring is interdependence. You must *want* to work together; that is, you must have the will. And you must know how to work together; that is, you must have the skill. Yet most of us in schools are not good at collaborating – and never have been.

God did not create self-contained classrooms, university departments, and isolated schools within a district. *We did* – because we find working alone safer than and preferable to working together.

Personal change must precede and accompany a heightening of cooperative skills. Can we work together? Do we even *want* to? What makes us think that under the banner of restructuring we will work together any better than we have in the past? By what means is an assortment of willful individuals in your school going to become a team? Or is the phrase "school improvement team" another oxymoron of the times, along with "affordable housing" and "jumbo shrimp"?

6. How can you observe in your own school with detachment and insight? We're told that a fish would be the last creature on Earth to discover water. So, many argue, you teachers and principals will be the last creatures on Earth to discover what your schools are really like.

One of the skills necessary for school-based reformers is reflection – the capacity to distance yourself from the highly routinized work you do – so you can see what's really going on for students and adults in your school. In order to envision what might be, you have to see what is. Marcel Proust observed that "the real art of discovery consists not in finding new lands, but in seeing with new eyes."

One teacher put it this way: "How long has it been since we visited our own school? Maybe all of us who are interested in restructuring our school should take a walk down its corridors once more."

Every school can become a lab school stocked with philosophers who can look with new eyes and who can constantly ask *why*.

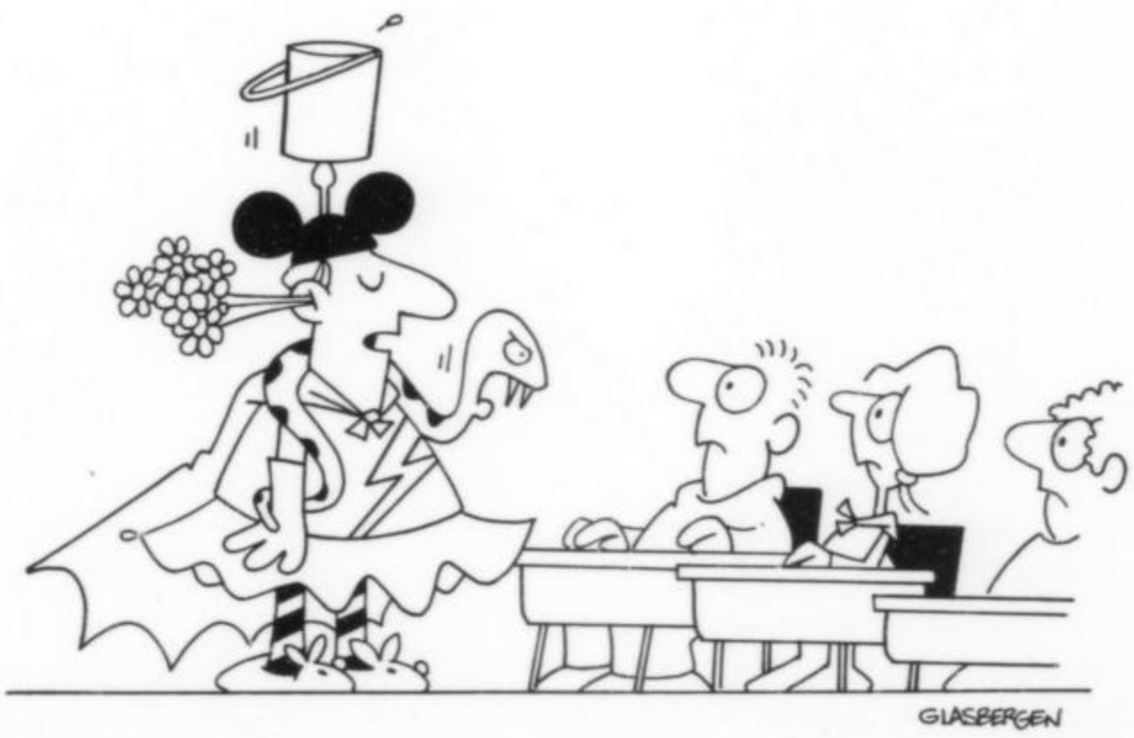
Another teacher "thought otherwise" about observing in her school with new eyes. "One morning," she said, "I donned a dress I had never worn to school, drove my husband's car to work, took a different route, deliberately parked in a different part of the lot, and entered through a different door. By the time I arrived at school, it had become a different place that I was able to see afresh, more through the eyes of an observer than of a participant. I spent that day and many subsequent days seeing a *different school* from the one I had taught in for 16 years." It's difficult, but possible.

The life of a teacher or a principal is like that of a tennis shoe in a clothes dryer: dark, heated, congested, turbulent. You need to find mechanisms that will enable you, in the midst of stultifying routine and unrelenting demands, to get outside that dryer and observe anew. Again, as Yogi Berra once put it, "Sometimes you can observe a whole lot by just watching." So, how can you become an insightful observer of your own school?

7. What about your school needs to be restructured? Most critics value some qualities of schools and abhor others. Few reformers propose to throw the baby out with the bath water. But each has a different prescription. For some, learning outcomes need to be defined more precisely in terms of test scores. Others want better preparation of students for the job market. Multiple action plans are swamping and defeating attempts to restructure schools. As anyone who works in schools knows, you can move on only a few important fronts at once. Which shall they be? What about your school most needs to be restructured?

My own view is that, because schools are such cautious and conserving places and because the world outside and the students inside are changing so fast and in such unpredictable ways, the most important change to bring to the schoolhouse is a culture of continuous adaptability, experimentation, and invention. Every school can become a lab school stocked with philosophers who can look with new eyes and who can constantly ask *why*. Why are the older students upstairs and the younger ones down? Why do teachers talk 80% of the time and students talk 25% of the time, when students outnumber teachers 28 to one? Why are adults teaching young people about computers when many young people know more about computers than most adults? Why?

We need to scrutinize – not every 10 years for accreditation but every *day* – the systemic conditions that enrich and assault students and adults. The continuous invention of new ways can replace perpetuation of comfortable routine – or even the enshrinement of new ideas. Schools can become places where thinking and practice are tentative until more promising thinking and practice emerge. For this to occur, schoolpeople must exercise some higher-order thinking skills



"I'd like to dedicate this day to all my students who complain that nothing interesting ever happens in school."

Let go of the trapeze. Think otherwise. Become an independent variable. Lick the envelope. Bell the cat. Fly the cage. Leave your mark.

and enlist help from the left-brained, the right-brained, and maybe even the hare-brained. Most of all, we need to spend less time trying to help others accept the unacceptable and more time trying to *change* the unacceptable. If schools didn't exist and children did and if you wanted youngsters to learn as much as possible of what is important, what would you invent?

8. How much restructuring is enough? This question is arising as more schools engage in restructuring. Is adopting a shopping center enough, or should we do more? We've created a school improvement council. We've shown that we can do it. Now can we get on with our business? How far should we go? Where is the line between an oil change and a major overhaul, between tinkering and reform, between reform and revolution, between revolution and revulsion? How do we know when we're there?

I recently went to get my car inspected. The woman ahead of me asked her young son to go back and look at the tail lights as she flicked the turn signal lever. As he studied the dusty lenses, the child yelled to his mother, "It's working; it's not working; it's working; it's not working." How far do we go in the name of restructuring? I think we go until it is working – not intermittently, but most of the time – for students, teachers, administrators, and parents. That is, we go until life in the schoolhouse becomes more the solution than the problem for all its occupants. We're not there until the organization we call "school" becomes just as agile, adept, and persistent at changing as the needs, situations, and characteristics of those who live under its roof seem to be. By this criterion, we will probably *never* "get there," for restructuring is not an end in itself; it is a means to help us work better together for our own and for our students' benefit.

9. How much are you prepared to risk? This is the final question I put to you. Consider this Aesop fable:

> Once upon a time a number of mice called a meeting to decide on the best means of ridding themselves of a cat that had killed so many of their friends and relations. Various plans were discussed and rejected, until at last a young mouse came forward and proposed that a bell should be hung round the tyrant's neck, that they might, in the future, have warning of her movements and be able to escape.
>
> The suggestion was received joyfully by nearly all, but an old mouse, who had sat silent for some time, got up and said: "While I consider the plan to be a very clever one and feel sure that it would prove to be quite successful if carried out, I would like to know who is going to bell the cat."

Like belling the cat, restructuring schools is not for the faint-hearted. Restructuring and risk go hand in hand. The symbol for "danger" in the Chinese language is the same as the ideograph for "opportunity," because the ancient Chinese believed that opportunity and danger are inseparable. The scent of danger, then, should alert us that we may be headed in the *right* direction.

One principal faced with impending restructuring perceptively described the conflicting feelings the prospect evoked: "I feel like a bird that has been caged for a long time. The door is now open. Will I dare to fly out? I am beginning to realize that the bars of the cage that have imprisoned me have also protected me from the hawks and falcons out there."

Schools are cautious and confusing places where teachers, principals, and students try to create islands of safety and sanity for themselves and are reluctant to leave these safe shores for parts unknown. And schools are storehouses of our memories. To radically transform an organization is not only risky, it is also a commission of institutional homicide. Can we restructure something we are deeply attached to? Do we want to? Defying the way we have always done things carries costs of risk, failure, and sadness. So, just how much are you prepared to risk of what is familiar, comfortable, and safe for yourself in the name of better education for others?

Many years ago Tsar Nicholas was out horseback riding when he came on a sentry in full uniform standing at attention in the middle of a bare field. He stopped and inquired why the sentry was posted there. "I am protecting the rosebush," replied the sentry. But there was no rosebush. On further investigation, the tsar learned that, in the previous century, Catherine the Great had been riding that very trail, had admired a lovely rosebush beside the road, and had ordered a sentry henceforth to guard the flowering bush. The rose, of course, had long since died, but the sentry had never been recalled. I wonder how many nonexistent rosebushes we continue to guard closely in our schools.

These are some of the questions that confront and trouble me as I read about and observe the call to restructure our nation's schools. I hope I have been successful in confronting and troubling you with them as well.

Despite its bureaucratic, tectonic, and remote sound, restructuring is an individual as well as a collective and institutional matter. A sample of one is considered a shaky construct in the research community. Similarly, each of us may feel inconsequential as an agent of serious change in our school. But we should take heart and draw strength from Eliot Wigginton of Foxfire, who, in a recent letter to me expressing some discouragement, concluded, "I draw hope from the knowledge that even a tiny insect can make its presence felt in a dramatic way to a very large animal."

We *can* work to change the embedded structures so that our schools become more hospitable places for student and adult learning. But little will really change unless we change *ourselves*. Let go of the trapeze. Think otherwise. Become an independent variable. Lick the envelope. Bell the cat. Fly the cage. Make your presence felt. Leave your mark on your school – and have some fun – while this window of opportunity is admitting fresh breezes. For soon it will close. K

The Schoolteacher's Portfolio: Issues in Design, Implementation, And Evaluation

Research has demonstrated that portfolios can capture the complexities of teaching. What remains to be done, according to Mr. Wolf, is to consider the ways that institutional and professional forces will support or subvert the promise of portfolios as evaluative tools.

By Kenneth Wolf

THE TEACHER Assessment Project (TAP) at Stanford University recently completed a four-year effort to explore and develop new approaches to teacher evaluation. The resulting methods and prototypes were intended to assist the National Board for Professional Teaching Standards in its creation of a voluntary program for the national certification of teachers for elementary and secondary schools.[1] TAP focused on two approaches in particular: simulation exercises, performed at assessment centers, and portfolios, which offer teachers the opportunity to document their actual teaching.[2]

As strategies for assessing teachers' pedagogical competence, both approaches possess virtues as well as limitations. Portfolios, the focus of this article, hold great promise for teacher evaluation but are fraught with potential problems. Portfolios are messy to construct, cumbersome to store, difficult to score, and vulnerable to misrepresentation. But, in ways that no other assessment method can, portfolios provide a connection to the contexts and personal histories of real teaching and make it possible to document the unfolding of both teaching and learning over time.[3]

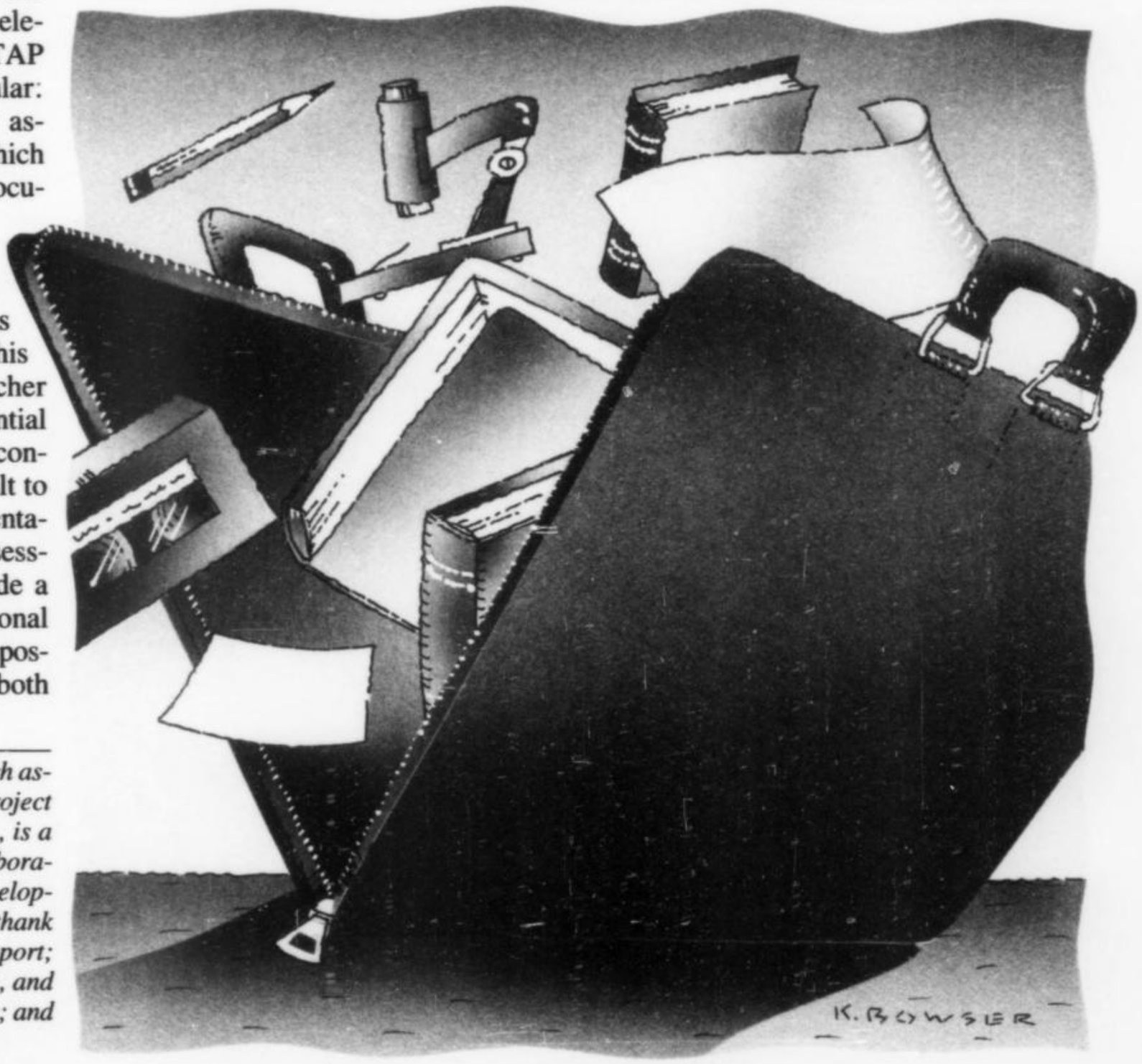


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Illustration by Ken Bowser

BACKGROUND

The TAP research was carried out in two main phases over a four-year period. In the first phase of this investigation of alternative methods of teacher assessment, members of the TAP staff designed assessment center exercises in two subject-matter areas: elementary mathematics and high school history. Forty teachers, 20 each in math and history, volunteered to participate in three days of assessment center activities, in which they were asked, for example, to plan and teach a lesson to a small group of students, to critique a textbook, to respond to examples of student work, and to review a videotape of another teacher's lesson as a stimulus for reflecting on their own teaching.[4]

The second phase of the TAP research focused on compiling portfolios and dealt with a different pair of subject-matter areas – elementary literacy and high school biology. Twenty teachers in elementary literacy and 20 in biology documented their teaching for one school year through such materials as videotapes, lesson plans, samples of student work, and reflective commentaries. In an attempt to link the portfolio and assessment center work, the literacy and biology teams also developed assessment center exercises that were based on the activities documented in a teacher's portfolio.[5]

A central assumption of the project was that "the *subject* matters" (to borrow the title of a book by Susan Stodolsky).[6] Assessment center exercises and the contents of portfolios were developed with the perspectives and practices of specific subject-matter areas in mind. In the teaching of history, for example, primary documents play a vital role; in science, a laboratory lesson presents an entirely different set of instructional problems and possibilities.

In addition, the TAP development teams, composed of both practicing teachers and university researchers, received substantial teacher input during all phases of their investigations. A review panel of teachers evaluated the design of the portfolios and assessment center exercises, consulting teachers tried out early versions of the materials, and teachers who took part in the field test provided ongoing feedback about their experiences in constructing portfolios and completing assessment center exercises.

"Excellent communication skills. Poor choice of words."

PRACTICAL ISSUES IN DEVELOPING PORTFOLIOS

In conducting their investigation of portfolios, the elementary literacy and high school biology teams followed similar sequences of events. Each team identified a number of critical teaching tasks in its respective subject area, designed portfolio entries around these tasks, assisted classroom teachers as they constructed their portfolios, supervised an assessment center in which teachers discussed their portfolios and completed exercises, and evaluated the teachers' performances. This entire process was informed by the participation of a diverse and knowledgeable group of teachers and scholars. Practicing teachers guided the development of the portfolios from inception to completion; researchers and teacher educators in literacy and biology assisted in designing and evaluating the portfolios; minority teachers and scholars raised concerns and offered suggestions for addressing issues of equity and diversity.

In the course of designing, implementing, and evaluating assessment center exercises and portfolio entries, participants in the project wrestled with both policy-related and practical issues. While these concerns overlap and are inseparable to some degree, I will focus primarily on the practicalities of developing a teacher's portfolio. What is important for teachers to document? What form should a portfolio take? What kinds of evidence should go into a portfolio? How much evidence should be included?

1. *What is a schoolteacher's portfolio?* On one level, a schoolteacher's portfolio can be defined as a container for storing and displaying evidence of a teacher's knowledge and skills. However, this definition is incomplete. A portfolio is more than a container – a portfolio also embodies an attitude that assessment is dynamic and that the richest portrayals of teacher (and student) performance are based on multiple sources of evidence collected over time in authentic settings.[7]

We began with the premise that any system of teacher assessment must faithfully reflect the richness and complexities of teaching and learning. While various methods of assessment – such as written tests, direct observations, and assessment center exercises – can provide multiple views of a teacher's competence, we believed that many important dimensions of teaching and learning could be captured only through portfolios. As Lee Shulman observes, portfolios "retain almost uniquely the potential for documenting the unfolding of both teaching and learning over time and combining that documentation with opportunities for teachers to engage in the analysis of what they and their students have done."[8]

2. *What purposes can a portfolio serve?* In the past, teachers documented their teaching for one of two reasons: either they had been nominated for an award and needed to show evidence of excellence, or they had been threatened with dismissal and had to provide proof of their competence. But few teachers fall into these two categories. The vast majority of teachers have no compelling reason to document their teaching. For what other purposes, then, might teachers want to prepare a portfolio?

The TAP research explored the role that portfolios can play in the voluntary national certification of accomplished teachers. A portfolio that includes, for example, samples of student work, teacher-developed plans and materials, videotaped teaching episodes, and the teacher's reflections on his or her own teaching can provide direct evidence of what a teacher knows and can do. In combination with evidence from other sources, such as written tests and direct observations,

> Teaching is too complex to assess in its entirety. But cutting it into pieces destroys its integrity.

this portfolio could be the basis for recognizing and rewarding excellence in the field of teaching. While the primary focus of the TAP research was on the role that portfolios can play in the evaluation of schoolteachers, it is important to keep in mind that a teacher's portfolio can (and should) also serve such purposes as promoting the development of individual teachers and highlighting exemplary practices.

3. *What is important for teachers to document through their portfolios?* We began our research with two considerations in mind. First, we believed that a portfolio should reflect the important activities that take place in the classrooms of effective teachers. That meant defining what is exemplary and essential in the teaching of elementary literacy and high school biology. Second, we wanted to determine the teaching activities that were best suited for documentation and to explore various ways of representing them through portfolios.

The development teams began by identifying critical tasks in the teaching of elementary literacy and high school biology. In arriving at this list of teaching tasks, we were aware that, although teaching is too complex to assess in its entirety, cutting it into little pieces destroys its integrity. In an effort to keep the teaching "chunks" as whole and coherent as possible, we tried to avoid cutting at random or sampling small bits of teaching. In addition, face validity was a concern. Not only did these teaching tasks need to be relatively large and meaningful; they also had to be recognized by both teachers and the public as legitimate teaching activities.

Based on observations of exemplary teachers, reviews of curriculum frameworks and research literature, and numerous discussions with teachers and researchers, the literacy development team generated an extensive list of critical teaching tasks in elementary literacy. From this initial list, they selected three diverse teaching areas for documentation in portfolios: 1) integrated language instruction, 2) assessment of students, and 3) creating a literate environment. While these categories addressed much of what is important in the teaching of elementary literacy, the three areas were not intended to cover the entire range of critical teaching tasks in literacy. Given that our primary research responsibility was to explore the feasibility of assessing teachers through portfolios, these aspects of instruction were chosen in part because they represented a diverse set of challenges for documentation.

Each broad category was then subdivided into smaller, more manageable tasks, each one of which became the basis for a portfolio *entry*. The area of integrated language instruction was broken down into "planning and adapting" and "teaching." Assessment of students was divided into "initial," "ongoing," and "focused" assessment. Creating a literate environment included "classroom design" and "adapting and using the environment." A complete portfolio in elementary literacy was made up of separate, but complementary, entries for the seven tasks just mentioned, plus an "open" entry, in which the teacher could document an area of special interest or expertise, and a "background information" entry, in which teachers described the context in which they taught.

The high school biology development team approached the problem of identifying critical teaching tasks in a different manner. They first identified four core tasks: 1) preparing and planning, 2) teaching, 3) evaluation and reflection, and 4) exchange with colleagues and with the community. Then they developed a list of documentable activities specific to biology within each of four broad areas of teaching: 1) unit planning, 2) conducting a lesson, 3) student evaluation, and 4) professional exchange. Conducting a lesson was further subdivided into entries for teaching a laboratory lesson or using alternative (nontextbook) materials, and professional exchange was broken down into entries for professional and community activities.

In an effort to link the earlier TAP work with the present investigation of portfolios, the development teams also designed assessment center exercises. We experimented with two different formats: "follow-up" exercises, using the teachers' own portfolios as the basis of the exercises, and free-standing exercises, which were independent of the experiences of any particular teacher.[9] Follow-up exercises enable teachers to draw on their own work and the context of their teaching in responding to typical teaching problems, while free-standing exercises provide a "level playing field" for all candidates. We developed these in part to see if exercises from one subject matter and grade level (e.g., elementary mathematics) could be adapted for use in others (e.g., high school biology) and in part to gain a better understanding of how the melding of portfolios and assessment center exercises contributes to an overall picture of a teacher's competence.

4. *What form should a portfolio take?* After selecting the specific areas to be documented within elementary literacy and high school biology, our next step was to explore various formats and procedures for representing these teaching tasks through portfolios. Early in the design process, we debated whether the teacher's portfolio should consist of the actual artifacts of teaching – such as lesson plans and samples of student work – or of the teacher's written reflections on the significance of the artifacts and events of classroom life.

Some members of the development teams argued that conceptualizing the teacher's portfolio as a collection of classroom artifacts ran the risk of turning portfolio construction into an act of amassing paper. The portfolio could easily become a thick and unwieldy collection of documents and materials that would be indecipherable to anyone other than its owner. The portfolio as a collection of artifacts, they contended, would also present problems of storing and scoring. Keeping track and making sense of this huge collection of documents and materials would be an organizational nightmare.

On the other hand, casting the portfolio as a collection of essays on teaching would distance it from what it is best at capturing – the raw material of teaching and learning. Focusing on a teacher's written statements would place a much greater emphasis on what teachers say they do in their classrooms than on what they actually do. Talk about teaching would be emphasized over the act of teaching.

We ultimately decided to have the teachers include both actual artifacts of teaching and learning and their written reflections on the meaning of these classroom activities and products. We felt that the artifacts alone would be relatively meaningless for evaluative purposes, while the reflective statements would be empty remarks if they weren't connected to the actual products of teaching and learning. Taken together, however, classroom artifacts, framed by the teacher's explanations and reflections, could provide an authentic and multitextured view of the actual teaching that took place, as well as some insight into the thinking behind the teaching.

To prevent the portfolios from becoming unwieldy, we tried to set clear purposes for documentation and specific limits on the amount of evidence that could be submitted for each portfolio entry. For instance, the elementary literacy teachers were instructed in one entry to "select five to 10 pieces of evidence that illustrate your beginning-of-the-year literacy assessment practices." To help ensure that the documents and materials in the portfolio would be meaningful to those who reviewed them, we asked the teachers to attach brief, written captions identifying and explaining the purpose of each piece of evidence. A caption might read, for example, "This letter to my students' parents shows how I have tried to involve parents in our literacy program." In addition to captioning the evidence, the teachers also wrote reflective commentaries in which they discussed what the contents of the portfolio revealed about their teaching. In this approach, the portfolio is both selective and reflective – carefully chosen artifacts of classroom life are given meaning by the teacher's descriptions and reflections.

In reviewing the completed portfolios, we learned that we needed to provide more explicit guidelines for the reflective

A videotape conveys teaching in real time and thus can be quite time-consuming to evaluate.

statements. The teachers' commentaries were rich in description but generally lacked thoughtful analysis and interpretation. We attributed the absence of reflection to both the nature of the task and the culture of schools. While we now know that we should have defined our expectations more clearly, we also recognize that schools do not normally provide teachers with the time or the opportunity for reflection.[10] Stimulating deeper reflection will require more than a clear set of directions.

5. *What kinds of evidence should go into a portfolio?* Once we decided that the portfolio should contain the "raw material" of teaching, that these artifacts should be accompanied by captions, and that these captioned artifacts were even more meaningful when they were framed by the teacher's reflections and rationales, our next task was to determine the particular kinds of evidence that would best allow teachers to demonstrate what they know and do. We began by generating a list of documents and materials that teachers might provide in their portfolios. This list, intended to be suggestive rather than exhaustive, contained numerous examples of written documents, such as samples of student work, teacher logs or journals, published tests, lesson plans, text materials, and notes from parents. The list also included such nonprint materials as video- and audiotapes, photographs, and diagrams.

In our initial discussions about the possible contents of the portfolio, we debated whether to require the teachers to submit videotapes of their teaching. While we felt that videotapes were a potentially valuable source of evidence, we were concerned about the issue of access to video equipment and technical support. We ultimately decided to require all teachers to submit a videotape of their teaching, but, for the purposes of this research project, we sidestepped concerns about access by providing videotaping services to all teachers who requested them.

A review of the portfolios suggested that the videotape, along with the teacher's descriptions and interpretations of the events on the tape, was one of the most important pieces of evidence.[11] The videotape allowed teaching to be seen in context as it changed in response to the students' needs and understanding. It revealed information beyond the scope of the particular lesson or event being taped – information about student participation, about the teacher's management strategies, about the school context. Most important, the videotape provided an opportunity to evaluate both an actual teaching episode and, through the teacher's reflective statement and follow-up interview at the assessment center, the teacher's own assessment of that same event.

Videotaping does have drawbacks, however. It can be intrusive in a classroom, inspiring dramatic outbursts from the children and disrupting the normal flow of events. Moreover, unlike a teacher's written reflections about a particular teaching episode, which can provide a condensed representation of the event, a videotape conveys teaching in real time and, as a consequence, can be quite time-consuming to evaluate. In addition, the viewer may have the impression of having seen an uncensored teaching episode, when in reality the camera can conceal as well as reveal.

Overall, we found that the contents of the completed portfolios conformed closely to our suggested list. Some of the teachers submitted unusual pieces of evidence, such as a post-lesson analysis of an unsuccessful teaching episode, but most of the portfolios, not surprisingly, contained the familiar products of classroom life – student papers, lesson plans, and the like. One exception was the material used to document the task of creat-

ing a literate environment. For this section of the literacy portfolio, the teachers were directed to provide a diagram of the physical arrangement of the classroom, a videotaped tour of the classroom with narration, and captioned photographs of the children and the classroom. At a reunion one year after completing their portfolios, the teachers reported that this particular combination of documents was the most successful at engaging them in thinking about their literacy instruction as well as the most accurate in portraying their literacy programs.

6. *How should the evidence in a portfolio be displayed?* One of our greatest fears was that we would get portfolios that had great visual appeal but little substance – portfolios that were neatly packaged and laminated but lacked clarity or coherence. In the handbooks on portfolio development and in our oral instructions to the teachers, therefore, we explained the need to be neat and legible but emphasized that we did not want the portfolios to be polished solely for the sake of display.

We encountered a test case in biology. We received two portfolios that differed greatly in appearance – one was typed and written in complete sentences, the other written in pencil and replete with sentence fragments and cryptic notations. The typed portfolio contained numerous content errors, however, while the handwritten version conveyed a sound understanding of the subject matter. In the evaluations, the typed version was rated low and the handwritten one high. Apparently, the evaluators focused on the content of the portfolios. In this example, the disparity in subject-matter knowledge between the two teachers was quite apparent. But, if substantive differences were less pronounced, might appearance exert a subtle effect on evaluation?

While the issue of display needs closer investigation, a comparison of the portfolios that received exemplary ratings with those rated lower indicates that the "glossiness" factor remained fairly constant between the two groups. Thus, in this arena at least, there appeared to be little incentive to inordinately polish the products of teaching and learning. It is important to keep in mind, though, that the construction of portfolios in this study took place in a low-stakes setting. When the rewards are more substantial, the impulse to "dress up" the portfolio will no doubt be much greater.

7. *How should the portfolio entries be structured?* Once we had identified the areas to be documented and had made some decisions about the general form and content of the portfolio, the next step was to develop specifications and instructions for each portfolio entry.

In our early discussions, we debated whether the portfolio task should be tightly structured or more open-ended. Should we fully specify the methods and materials for each entry or let the teachers themselves decide how best to demonstrate competence?

If the portfolio task is too open-ended or ill-defined, it can turn into a paper chase.

We weighed the benefits and drawbacks of both the structured and the open-ended approaches. Previous efforts at using portfolios to assess teachers in licensure and career ladder programs in Tennessee and Florida revealed that, if the portfolio task is too open-ended or ill-defined, the task can easily turn into a paper chase. The portfolios that teachers submitted in these previous ventures were unmanageably large and unfocused. With this in mind, we knew that we wanted more than a container filled with whatever the teacher felt was appropriate. On the other hand, we were concerned that the more we defined and constrained the task of documentation, the greater the risk of excluding the many (and unexpected) forms that exemplary teaching can take.

We ultimately decided that the best approach was to be explicit and directive about the form and procedure of documentation but permissive about the content of the portfolio, giving teachers as much latitude as possible to make decisions about their teaching.[12]

The initial feedback from teachers participating in the field test was clear: they wanted even more direction. Responding to this request in the next version of their "Portfolio Construction Kit," the biology team provided step-by-step instructions for the teachers to follow. As more portfolios are completed, however, and numerous and diverse models for documenting exemplary practice are available for teachers to review, many questions about instructions and procedures will fade away.

8. *How much evidence is it necessary to include in a portfolio?* Given that performance-based exercises are costly to develop and administer and that portfolios are time-consuming to prepare and expensive to score, it is important to ask what minimum number of assessment center exercises or portfolio entries are required to determine a teacher's competence. Are 10 portfolio entries enough? Are two too few? Edward Haertel, an associate director of the project, sees it as a question of the "value added" by each additional entry.[13] If we were forced to make a decision about a teacher's competence based on a single portfolio entry or assessment center exercise, what would a second entry or exercise add to this judgment? What would a third contribute?

In part, the question can be answered by tying it to the number of critical teaching tasks identified. In biology, the development team identified four broad areas: planning, instruction, evaluation, and professional growth. By sampling performances within each area through a variety of assessment approaches (i.e., assessment center exercises, portfolios, classroom observations, and written tests), we can begin to set boundaries on the amount of evidence that might be necessary to obtain a reasonably comprehensive picture of a teacher's knowledge and skills.

Interestingly, after completing their portfolios, the biology teachers argued that, rather than submit a videotape of a lesson from one instructional unit, student work samples from another, and a lesson plan from still another, they should draw all their portfolio entries from the same four- to six-week unit on a single

topic. They felt that this method would make their task more coherent and manageable.

But a counterargument is that evidence collected from different teaching activities across different topics provides multiple windows on a teacher's knowledge and skill. For example, a lesson plan on ecology presents one view of a teacher's subject-matter knowledge, while the same teacher's evaluation of student papers from a unit on genetics reveals that teacher's knowledge in a different area of the curriculum. These multiple views also make it easier to detect the "one-lesson wonder" – the teacher who pulls out the same stellar lesson during the principal's once-a-year observation but has little else to offer. In addition, requiring all of a teacher's documentation to come from a single four- to six-week period would probably place so much pressure on the teachers that teaching and learning might be seriously undermined during that time.

Ideally, we sought to develop portfolio entries that were manageable as well as meaningful to both those constructing them and those evaluating them. Ultimately, the way we dealt with the matter of how much evidence is necessary was determined by real-world constraints. Given that the teachers in this study were constructing portfolios in addition to carrying out their regular teaching duties, we were concerned that the task be one that they could be expected to complete. We aimed at collecting just enough evidence to allow us to make some reasonable judgments about a teacher's knowledge and skills and to explore the effectiveness of portfolios as a strategy for assessing teachers.

According to the feedback from the elementary literacy teachers, our demands on them were unrealistic. Completing a full set of portfolio entries in one school year was too taxing. Even though we designed the portfolios to capture much of what routinely takes place in classrooms, completing them required more than assembling the products of classroom life. In particular, writing the reflective statements and captioning the contents of the portfolio took a substantial amount of time.

The one-year limit, imposed because of research constraints, is somewhat artificial, however. In actual practice, teachers are likely to take several years to prepare their portfolios, possibly beginning during their undergraduate years. This longer time frame will allow for a varied pace to suit individual needs and interests and will provide teachers with adequate time to receive support and feedback on their portfolios and teaching.

9. *Should a portfolio represent a teacher's best work?* Tom Bird, a member of the TAP staff, offers various images of a "portfolio" – an artist's portfolio, a pilot's log, a salesperson's catalogue, a scout's merit badge sash – each of which presents the owner's work in dramatically different ways.[14] But which model is most appropriate for teaching? Should the schoolteacher's portfolio resemble the photographer's, which presents only the very best work, or the pilot's log, in which every flight is recorded? Should the portfolio display all of a person's work – the good, the bad, and the ugly – or only the work of which the person is most proud? Or is teaching so dissimilar from other occupations that the model for the schoolteacher's portfolio should not be borrowed from any of the existing models?

We took the view that a portfolio should contain the teacher's very best work. We expected that, in constructing a portfolio, a teacher would have ample opportunity to collect work samples over an extended period of time and to select work that most flatteringly illustrated his or her knowledge and accomplishments. A lesson that flopped, for example, would not be documented in the portfolio – unless it contributed in some significant way to the teacher's or students' growth or revealed important insights about the class or course. But, while we expected the portfolio to portray a teacher's best work, we also took the view that the unnecessary lamination of the genuine products of teaching was as unseemly as "a carpenter . . . bronz[ing] her tools."[15]

In actuality, given the pace of the project, the teachers often had little opportunity to select from various samples of their work. For example, during the designated time period, the biology teachers taught only one or two lessons that provided evidence of their use of alternative materials. Thus many teachers submitted their only attempt. In this case, the teachers felt that constraints imposed by the project prevented them from demonstrating their best teaching. Presumably, when the process of constructing and revising a portfolio is allowed to evolve over a longer time span, the portfolios should contain teachers' best attempts at responding to the complex problems of teaching.

Some project members raised the concern that if we focused on best teaching, everyone's portfolio would look alike. Given sufficient time, wouldn't all teachers be able to present exemplary portfolios? The portfolios we reviewed provided evidence to the contrary. We found considerable variation in what teachers view as their best efforts. In some instances, teachers passionately defended practices that most of their colleagues would find unacceptable. In addition, not all teachers are equally able to step back and see whether their own instruction does, in fact, reflect the conception of teaching they espouse.

10. *Should a portfolio be a solo performance?* Consider the following two models for portfolio construction. In the

"I still say that Darwin didn't know what he was talking about."

"solo" model, teachers are expected to complete their portfolios without the assistance of others. In the "collaborative" model, teachers are directed to seek the participation of others in developing their portfolios. In the first model, collaboration is treated as cheating; in the second, teachers are encouraged to work together.

One of the drawbacks of using portfolios for evaluation is the difficulty of ensuring that the work presented is entirely that of the person whose name is on the folder. But this potential stumbling block can be turned into a stepping stone: treat collaboration as a virtue.[16] In this view, teachers would be expected to seek out the assistance of others in their teaching and in the construction of their portfolios.

Teachers tend to work in isolation, and the few interactions that do occur between colleagues are likely to involve nonacademic concerns rather than substantive issues of curriculum or instruction.[17] If one outcome of portfolio assessment is to promote a culture of collaboration among teachers, then a significant contribution will have been made to the profession.

With the collaborative model, the person whose name is on the portfolio is still responsible for mastery of the knowledge and skills displayed in it, but what distinguishes this situation from the solo model is how the teacher achieves that mastery. A doctoral dissertation, for example, is a coached performance, but the student is ultimately responsible for both the final product and mastery of the subject matter.[18] The end result is that the doctoral student – or classroom teacher – is able to achieve a greater understanding by working with others than by working alone.

While the problem of establishing authorship is not entirely eliminated with the collaborative model, it is significantly less important. And, in a program of teacher assessment that blends a variety of approaches, there are multiple opportunities for cross-checks – through assessment center exercises, classroom observations, attestations by colleagues, written tests, and follow-up interviews after a teacher has submitted a portfolio – to ensure that the portfolio truly represents the teacher's talents and accomplishments.

Collaboration is not without risk, however. Without supports and guidelines in place, it can become an empty ritual rather than an opportunity for fruitful professional exchange. Even worse, if collaboration is not voluntary and takes place in a high-stakes environment, the pressure of working together could tear people apart. One way to reduce the likelihood that collaboration will turn into conflict is to ensure that mentors and colleagues assisting a teacher play only a supportive role. Portfolio collaborators, in this view, are advocates for the teacher, not evaluators. Only later, after the collaboration has taken place, is the completed portfolio evaluated.

11. *How should a portfolio be evaluated?* Developing procedures for constructing a portfolio poses one set of puzzles; evaluating portfolios, another. Not only does a portfolio contain much more information than is normally available for assessing a teacher's competence, but also its contents have been customized by each teacher to fit his or her personal teaching style and context. Each teacher's portfolio is unique.

After exploring the virtues and difficulties of using a fine-grain, analytic scoring scheme to evaluate assessment center performances in the first phase of the project, we opted for an entirely different approach to evaluating portfolios.[19] Rather than take a teacher's portfolio apart for a point-by-point analysis, we believed that a portfolio is more coherent and informative when evaluated holistically. This approach depends heavily on "professional judgment," a critical component of evaluation in many professions. In exercising professional judgment, one brings to bear knowledge of a given profession's practices and traditions.

"Professional judgment" may be the key to portfolio evaluation, but simply conjuring up the words does not solve the problem. In order for people to exercise such judgment in a disciplined manner, they need to be very clear about the performance criteria. Without some kind of structure or guidelines, people tend to go to one extreme or the other – either they retreat to unsubstantiated global impressions based on first reactions or gut feelings, or they try to simplify the assessment task by looking for specific, objective criteria and become overly narrow in their evaluation. The difficult task is to steer the middle course and make only supported judgments about specific aspects of the problem being evaluated without reducing the judgment task to a formula.[20]

We aimed at achieving this objective by having trained examiners, experienced and knowledgeable in the content area and grade level, rate each portfolio entry according to a few broad but specific criteria. In this case, the criteria that we applied came from a draft of standards from the National Board for Professional Teaching Standards: board-certified teachers 1) are committed to students and their learning, 2) know their subject matters and how to teach them, 3) manage and monitor student learning, 4) think about and learn from practice, and 5) participate in learning communities.[21]

We modified the language of the standards to better suit the purposes of the field test and added a paragraph describing each standard in greater detail to help the examiners more fully grasp its meaning. The standards and descriptive paragraphs were broad enough to guide the examiners but not so specific as to make their task mechanical. Given that the standards were released well after the development of the portfolio entries, however, the match between the two was not always perfect. Nevertheless, the fit was good enough to simulate a process that the board might follow in certifying teachers.

In scoring the portfolios, each entry, as well as a candidate's overall performance, was rated for each appropriate standard on a five-point scale: unacceptable, weak, adequate, proficient, and superb. Each scale point was accompanied by a paragraph describing the main features of a performance at that level. In our simulation, the line between adequate and proficient marked the difference between a respectable performance and a board-certified one.

We employed a two-stage procedure in scoring the portfolios. First, small groups of examiners were trained to rate specific portfolio entries, and they scored only those entries. Second, caucus groups were formed, with each group composed of members from the different examining teams. The caucus groups were assigned the task of looking across all of the performances of several candidates and making final recommendations for

board certification. In this way, the scoring represented an amalgam of judgments from different raters and different vantage points. Through this process, we aimed to allow the examiners to apply their professional judgment, but we offset their subjectivity through training and multiple independent ratings.[22]

12. *What does a portfolio contribute that can't be achieved through other methods of teacher assessment?* Portfolios are messy, time-consuming to construct, cumbersome to store, and costly to evaluate. Are they worth the trouble? Why do we even need them?

Portfolios enable teachers to document their teaching in an authentic setting and to bring in the context of their own classrooms in a way that no other form of assessment can. Classroom observations allow teaching to be seen in context, but observations, which tend to take place only a few times a year, are isolated snapshots, disconnected from the events that preceded or followed the observed lesson. Through portfolios, teaching and learning can be seen as they unfold and extend over time. And when the actual artifacts of teaching are combined with a teacher's reflections, portfolios permit us to look beneath the surface of the performance itself and examine the decisions that shaped a teacher's actions.

Along with assessment center exercises, (improved) written tests, and direct observations, portfolios can contribute valuable evidence about a teacher's pedagogical capacities. However, as Shulman points out, "Each of these several approaches to the assessment of teachers is, in itself, as fundamentally flawed as it is reasonably suitable, as perilously insufficient as it is peculiarly fitting."[23] Written tests permit broad sampling of a teacher's subject-matter competence but are remote from the complexities of practice. Assessment center exercises enable teachers to demonstrate their skills and knowledge through a series of realistic simulations in a standardized setting but are not connected to an actual context. Direct observations allow teaching to be seen in its full complexity, but the rating scales used in observations fail to tap many of teaching's critical dimensions. Portfolios are flawed as well, but no other method of assessment can equal them in providing a connection to the contexts and personal histories of real teaching.

WHILE THIS research took place without real-world incentives and consequences pressing on the process of building and evaluating portfolios, we were largely satisfied with the final results. The teachers felt that their portfolios accurately reflected what took place in their classrooms. The development teams who designed the portfolios felt that the portfolios captured what they were intended to capture. Those evaluating the portfolios felt that the complexities and contexts of real teaching came through. Most important, we found that portfolios are possible – not an insignificant claim, given the results of previous efforts at portfolio assessment.

This research focused on the evaluative function of portfolios. But portfolios can serve a formative function as well. In fact, while they have an indispensable role to play in the evaluation of teachers' pedagogical competence, their larger contribution may lie in the ways that they can reshape the profession of teaching. Portfolios can give teachers a purpose and framework for preserving and sharing their work, provide occasions for mentoring and collegial interactions, and stimulate teachers to reflect on their own work and on the act of teaching. However, if completed in a perfunctory fashion, portfolios can also become nothing more than another obstacle to good teaching. As Bird observes, "The potential of portfolio procedures depends as much on the political, organizational, and professional settings in which they are used as on anything about the procedures themselves."[24] Our original problem in this research was to generate a prototype – to "grow" portfolios. In this we succeeded. What remains is to consider the ways that institutional and professional forces will support or subvert the promise of portfolios.

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1. The research reported here was supported by a grant from the Carnegie Corporation of New York. The opinions expressed are those of the author and in no way reflect the views of that organization. Moreover, while this work was carried out in the interests of the National Board for Professional Teaching Standards, the board is proceeding with its own extensive research program and will not necessarily adopt the model described here.

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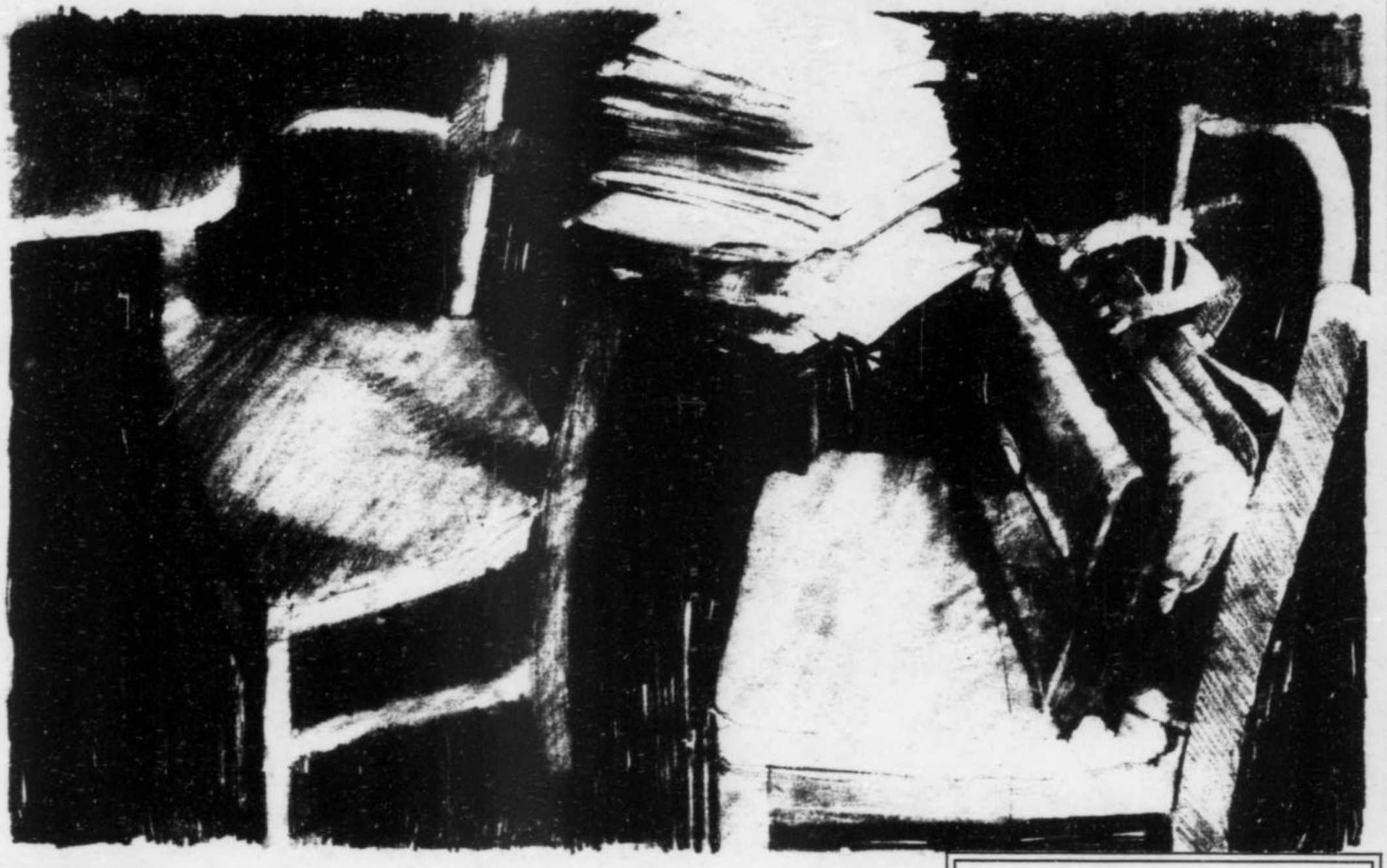
FOUNDATIONS AND THE PUBLIC SCHOOLS

An Impressionistic Retrospective, 1960-1990

by Edward J. Meade, Jr.



UNTIL AFTER World War II, the record of foundation involvement in the U.S. public schools was less than robust. There were, of course, a few exceptions — most notably, the philanthropy of the Rockefellers during the decades before the war, which played a significant role in the education of black children in the southeastern states. In the main, however, foundations did not begin to attend to the improvement of the public schools nationally until the late 1950s. Thus what follows is limited to the years since then.

There were (and still are) myriad privately supported local scholarships and other awards to students. Since these awards are directed at individuals and not at institutions, however, I do not consider them to represent foundation participation in the schools. And the same goes for gifts — from equipment to books to band uniforms — that are donated to schools by various agencies, ranging from parent/teacher organizations and local service clubs to legally constituted foundations. Such contributions are

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Illustration by Kris Hackleman

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quite common and, in most cases, only marginal in terms of supporting or changing schools or school programs.

While I am issuing disclaimers, let me add a few more to the list. In this report I will not attempt to "cover" the range of foundations that have been or are currently engaged in activities related to the public schools. Perhaps a few that should have been included are not; if so, my apologies for the oversight. But I did not intend this report to be a roll call or a "show and tell." Some readers may see my review as deficient in its analysis of corporate-contributions offices and corporate foundations (at least, until recent years). But much of the earlier philanthropy from those sources was of the kind I will not cover: support for scholarships and for "things." There have been exceptions, of course; some corporations have long been closely associated with the public schools in those communities in which they have manufacturing plants. Three examples among the several that come easily to mind are ARCO, Corning Glass, and the International Paper Company. Today such corporate foundations as Bell South, AT&T, and Panasonic operate across wider geographic areas and in much the same way as independent foundations.

The diverse and important work of the many regional and community foundations is also beyond the scope of this review. Nor will I attempt to review the role of federal or other public agencies that are "foundation-like" — though I will allude to their work when it helps readers to understand the work of private foundations in the schools.

Clearly, this overview will not satisfy those who seek quantitative data: number of grants, total dollars involved, and the like. Such information, while interesting, does not contribute much to understanding the roles — general and specific — that foundations have played in shaping and improving the public schools. Some foundation watchers may disagree with that contention; they are the folks who seek to find trends in program priorities or in the kinds of costs that grants are permitted to cover. But most foundation watchers — myself among them — do not garner those kinds of understandings from compilations of statistical data.

Sometimes, such information can even be misleading. Many grants to improve the schools, for example, go to agencies and institutions *other than* schools. Over a 10-year period, the Ford Foundation expended some $30 million in an attempt to make school finance more equitable. None of this money went directly to schools or school systems; nonetheless, the program had substantial effects on public education.

Indeed, statistics on the number of grants given or on the amount of money expended in a particular school, school system, city, or state are virtually meaningless without additional data. Has the foundation limited itself to particular sites for some reason? Is the city or state that is receiving the funds the real locus of the project? Is the receiving school system or state education agency acting as the financial agent for itself alone — or for other school systems or states as well? (Years ago the Ford Foundation supported a five-state effort called the Western States Small Schools Project. Each of the five states received grants, but one state received much more because it was the home of the project's central office and staff.)

I could list other examples of statistical data that do not engender understanding. Gathering such data might yield crisply designed research — but its worth would be questionable. (I have never forgotten a lesson I learned from a professor — a researcher himself — who said that, in identifying something to study, a researcher should first ask, "So what?") More to the point, I am neither qualified nor inclined to carry out that kind of study. If this retrospective has any value for others, it will stem from my almost 30 years of work with the Ford Foundation — in the course of which I have had many opportunities, some of them painful, to reflect on and review my own experiences and the experiences of others so engaged.

Finally, this review does not emphasize the roles that particular individuals in specific foundations played in working with the public schools. A "people" paper on foundations and the schools would be a separate article. Perhaps it will be written someday.

Clearly, then, the retrospective that follows is impressionistic. Nor is it in any sense the final word. It is simply the view of one person — his selection of what he knows and has read. It reflects where he was and when, whom he heard, to whom he listened, what he looked at, and what of that he really saw. In short, what follows is a story of foundations and the public schools over the last three decades as told by me, and nothing more.

* * *

I intend to focus here on the roles that foundations have played in four broad areas related to the public schools: 1) research, 2) technology and things, 3) people, and 4) curriculum and school improvement. The areas on which I have chosen to focus and the foundations and activities that I will cover within each of them make up only the tip of a large iceberg. They simply serve as examples of the work of foundations that has affected the public schools during the past 25 to 30 years.

RESEARCH

No review of the role of foundations in almost any field — public education included — could ever be complete without looking at the attention and support that they have given both to classical research and to less empirically rigorous studies of all kinds. There are at least two good reasons for this focus.

Perhaps most important is the belief, shared by many foundations, that they have a responsibility to illuminate issues in order to inform public discourse and public actions. But a second (and not inconsequential) reason is that, as independent agencies, foundations are able to support the study of unpopular issues that might not otherwise garner funding. (Think, for example, of Abraham Flexner's now-famous study of medical education, which was supported by the Carnegie Corporation of New York. Would that study ever have taken place, had the decision been left to the medical establishment?) Foundations are in a particularly good position to carry out these tasks because, though expected to act in the public interest, they are private institutions and thus not readily swayed by political winds.

Foundation support of studies related to public education has been fairly constant over the past three decades. Indeed, some foundations are noteworthy for providing support of this kind. For example, the Spencer Foundation (which has its headquarters in Chicago) was established largely to support research and scholarship that seem likely to contribute to the improvement of education. Through its support of various fellowship programs, the Spencer Foundation attends as well to the training and development of scholars and researchers in education, in human development, and in related fields. Other foundations — Carnegie, MacArthur, Lilly, and Ford, to name but a few — have supported research and researchers in such areas as assessment of academic achievement and program documentation and evaluation.

Support for research projects frequently fails to grab the attention and gain the respect of the school establishment — much less to interest the public at large. Clearly, such foundations as Spencer, Exxon, and

McDonnell (to mention only three examples) do not fund research as a means of attracting public attention. Just as clearly, though, support for research is important. Sometimes research yields little of value — save, perhaps, for the further development of those who produced it. Moreover, some foundation-supported research projects get derailed by changes in the context of the study or in the personnel who are carrying it out. But sometimes the research findings accumulate, bit by bit, to form a critical mass of knowledge that literally transforms an entire field of study. Such instances serve to remind us that foundation support for research — hit-or-miss as it sometimes is — must be continued if we are ever fully to understand such things as human development, learning, teaching, and the conditions that enhance or impair school effectiveness.

Some foundations (e.g., the Twentieth Century Fund) restrict themselves to supporting studies. Other foundations have established reputations for supporting particular *kinds* of studies. The Carnegie Corporation of New York,* for example, is known for creating national commissions or task forces that examine and report publicly on particular issues or areas in education. Through the years, Carnegie has backed commissions to examine educational television, education and the economy, and — more recently — teachers and teaching and the education of children in middle schools.

In the last two cases, the reports of the study groups have had considerable influence on policies and programs. For example, the report on teachers and teaching recommended the creation of a national board on performance standards for practicing teachers. As a result of this report, the National Board for Professional Teaching Standards was formed. Similarly, the report on middle schools focused national attention on this level of schooling and on the need for more attention to policies governing middle schools and what they do. I must point out, though, that in both cases the Carnegie Corporation followed up its reports with grants to support the implementation of some of the recommendations advocated by the study groups.

Some observers criticize a foundation for supporting a study and then granting funds to implement the recommendations. They maintain that the foundation is advancing its view or imposing its agenda on others. However, there is another way of looking at this pattern of funding: the foundation is responsibly accepting the findings of its study and acting on them, rather than sitting back and waiting for others to do so. But history suggests that, unless the public climate is receptive, follow-up activities to studies funded by a foundation tend to have little effect over the long term.

A Ford Foundation program of the early 1960s provides a good example. The foundation undertook a study that showed that there would soon be a shortage of college instructors; indeed, many required general education courses, serving large numbers of students, were already being taught by graduate assistants — few of whom had any previous training in pedagogy or any teaching experience. The final report of the study recommended the creation of a new master's-level program that would 1) start in the third year of undergraduate study, 2) steep the participants deeply in their academic specialties so that they would truly be masters of their disciplines, and 3) enable the participants to get some teaching experience. The graduates of such programs were expected to become the teachers of undergraduate survey courses in the basic disciplines.

The Ford Foundation granted close to $30 million to support the development of pilot programs on several campuses across the nation. During the period of the grants, these programs did what they were intended to do: i.e., make students masters of their academic disciplines *and* effective teachers of survey courses in those disciplines. However, later on these pilot programs became ways of recruiting able undergraduates into doctoral programs — a worthy end, no doubt, but not the originally intended outcome. Clearly, the culture of higher education overrode the goal of the pilot programs.

Sometimes a study receives attention because of the person or persons engaged in it. During the late 1950s and early 1960s, James Bryant Conant's studies of high schools, junior high schools, and teacher education (all funded by the Carnegie Corporation) were considered significant as much because of Conant's reputation and the public respect he commanded as because of his findings and recommendations. The same might be said about more recent studies of education-related issues by such individuals as Ernest Boyer and John Goodlad, to name only two.

Of course, there have also been studies or reports of innovations that have proved influential, even though their authors were initially unknown in the larger arena. The name Eliot Wigginton comes easily to mind. A high school English teacher in Rabun Gap, Georgia, Wigginton decided to help his students learn grammar and writing skills through active involvement in a real writing project. Under his guidance, the students produced a publication — *Foxfire* — about local culture in their part of Georgia. Slowly, *Foxfire* evolved into a philosophy

"It says, 'This was made possible by a grant from the Ford Foundation.' "

*The Carnegie Corporation is *not* to be confused with the Carnegie Foundation for the Advancement of Teaching, a separate organization that conducts its own studies of education.

and a pedagogy that enables students to learn by engaging in or relating to real-life experiences.

Sometimes foundation-supported studies stand in opposition to other foundation-supported studies. In the mid-1960s, for example, James Koerner's study of teacher education followed directly on the heels of Conant's study of teacher education. *Kappan* readers who studied both reports will remember that the authors expressed sharply differing points of view. Situations such as this may reveal differences in the values that guide foundations' interests and program priorities or differences in their views of what's needed in the way of reform.

TECHNOLOGY AND 'THINGS'

When one thinks of foundations in relation to education at the college or university level, one thinks particularly of buildings. But such is not the case when one thinks of foundations in relation to the public schools.

Not that foundations have totally failed to pay attention to public school facilities. Indeed, the Educational Facilities Laboratories (EFL) was one of the more successful activities supported by the Ford Foundation over a 25-year period. As Harold Gores, the founding (and long-time) president of this independent agency, put it, the EFL was concerned about "the things of schools — things that you could kick."

The EFL played an important role during the Sixties and Seventies as new schools were built and old ones updated. The agency never engaged in school construction. Rather, it used its funds to analyze needs and to design and study new kinds of spaces for educational use. Over its lifetime, the EFL was the initiator of or catalyst for many innovations in school facilities, including modular buildings, multipurpose spaces, new kinds of classroom lighting, the use of carpeting, the use of artificial turf, the use of "bubbles" to cover playing fields — even windowless schools and underground schools.

The legacy of the EFL has yet to be written. Suffice it to say that, for a variety of reasons, the EFL was a very useful and timely example of philanthropy. First, the agency was established in time to respond to a major national need: that of creating new schools and colleges across the nation, rapidly and efficiently. Second, the agency was expected to encourage innovation in school design, to reach out for the best talent. Third, it used its funds to make that talent available to education officials. Fourth, the EFL shared the results of its work in ways that enabled others to learn. Even today, its publications could serve as models for other foundations. Fifth, the agency adapted skillfully and sensibly to new needs. For example, when the environment became an issue, the EFL was ready with new ideas on conserving energy, recycling materials, and retrofitting spaces to make them environmentally sounder. Finally, the EFL was independent, with its own board and staff; it was not an agent of its funder, the Ford Foundation. Rather, every two years the foundation reviewed the overall record of the EFL and its plans for the next two years and then forward-funded its grants. In short, the foundation responded to the issue of school facilities by creating an independent and knowledgeable agency — which, in turn, used its funds and its expertise to respond to needs and to collaborate with others in the field. In this instance, the strategy was effective.

Although school buildings did not receive a great deal of attention from most foundations, other "things" did — especially educational technology. Two specific technologies have been dominant in recent decades: television (starting in the 1950s) and computers (since the 1960s). Indeed, these technologies are so readily accessible to most consumers today that they have become deeply ingrained aspects of our everyday lives.

The marriage of foundation support and instructional television began in the late 1950s. Early programming for instructional television was based on a simple premise: put a first-rate scholar on the screen, and he or she (though most often a *he* in those days) could function as a master teacher for thousands — if not millions — of viewers. Remember "Continental Classroom"? Remember Harvey White on physics and John Baxter on chemistry? Remember Washington County, Maryland, and its closed-circuit instructional television?

The medium was *not* the message; indeed, little use was made of the medium's intrinsic capabilities (although, to be fair,

Illustration by Kris Hackleman

the technical capabilities of television were rather limited back then). Viewers watched teachers teaching as they would in classrooms, but the technology of television did make possible a few "extras" — occasional closeups, the use of some visuals, perhaps a film segment interspersed along the way. Study guides and suggested readings accompanied the programs, and classroom teachers often engaged their students in postviewing activities.

As early as the late 1950s, the Ford Foundation supported instructional television demonstrations like those I have just described. Television was quickly becoming a mass medium — or, as one critic dubbed it, "the great common denominator." Clearly, the use of this new technology was limited by its own capabilities. But we were perfecting the technology and simultaneously using it in ways that were less than productive. Many teachers treated instructional television programs as add-ons, mere time fillers. Rarely were they solidly integrated into the ongoing instructional program (though that is now more often the case).

Nonetheless, the early attempts to use television for instruction taught us some useful lessons. They demonstrated that programming of high technical quality could transmit information to mass audiences. They also demonstrated that other, more conventional strategies (such as follow-up discussions) would be necessary to ensure that viewers actually learned the information that the television programs conveyed. Finally, they taught us that enabling students to *use* what they had learned required activities that were well beyond the capacity of this medium, however powerful it might be as a conveyor of information.

As we learned these and other lessons, our use of television for education improved. Public television stations, often in partnership with teachers, began to develop instructional programs and to carefully schedule them for broadcast during the school day. The advent of videotapes gave teachers far more flexibility in using such programs.

Instructional television may have reached its zenith in the late 1960s, thanks to a bold new venture — Children's Television Workshop (CTW) — which was collaboratively funded by the Carnegie Corporation, the Ford Foundation, and the U.S. Office of Education. CTW brought together a potpourri of educators, specialists on child development, artists, and broadcasting technicians.

Using entertaining and engaging formats, "Sesame Street" and other CTW programs convey vast quantities of information to children. They also encourage young viewers to *do*, not simply to watch. Given that CTW is working with a one-way medium, it has done well by its mission.

The story of Children's Television Workshop contains an important lesson for philanthropy. In the 1950s and 1960s, children were clearly "hooked" on television in their own homes — but hardly on high-quality programs. At the same time, much instructional television, though potentially of high quality, was hardly engaging. Since foundations were already involved with television in various ways, individuals who wanted to improve children's television found sympathetic listeners — and, eventually, eager grantors.

After the early — and not very impressive — experiments with television in the schools, it would not have been surprising had foundations instead lost interest and turned their attention elsewhere. But they continued to recognize the potential power of the new medium; thus they were ready when a better plan came forward for harnessing this technology to instruction. The lesson seems to be that, given a powerful resource, we need to persist in finding ways to harness that power more positively and productively for our own ends.

The history of foundation support for computer technology in the schools is, in many ways, a similar tale. Initially, a few foundations supported the direct application of computers to such problems of school management as recording attendance and keeping an inventory of supplies. The use of computers to build modular schedules in high schools was one of the first of these management applications to affect activities directly at the classroom level. Given the computer's speed and flexibility, teachers and administrators could no longer fall back on the hoary excuse, "We'd like to do that, but we simply can't schedule it." This modest application gave schoolpeople opportunities to ponder options that had heretofore been unthinkable.

Initial attempts to apply computer technology to learning were nothing more than electronic versions of programmed instruction, a behavioristic approach that did not live up to the expectations of its proponents. Programmed instruction broke learning tasks into discrete and very simple steps; instead of engaging students' interest, this approach was frequently dull and unimaginative. Yet foundations supported a variety of projects that generated long lists of expected outcomes and equally long lists of

Without foundation interest and support, we would not have learned so many worthwhile lessons along the way.

tasks, broken into discrete steps, that presumably would lead to those outcomes. The role of the teacher was unclear. (Indeed, there were even attempts — again foundation-supported — to develop programs to educate teachers in a similar fashion. Remember competency-based teacher education?) Like most busywork, much programmed instruction probably did more to create order in classrooms than to spur learning. Today the question has become, What was the gain for children?

Yet foundation support of this overly simplistic application of primitive computer technology, like foundation support of preliminary experiments with instructional television, produced some useful outcomes. At the very least, experiments with programmed learning gave us a better understanding of how curricula might be fashioned and raised some serious doubts about the wisdom of employing a rigid approach to teaching and learning. These efforts also brought computers into classrooms. Their uses in those settings today are vastly more flexible and adaptable; now foundations need to ensure that teachers can use the wonders of computer technology equitably and effectively to improve their students' learning.

Overall, foundation support expedited the development of various technologies for educational use — sometimes at high cost to students and teachers during the trial period. Perhaps foundations need not have bothered; they could have let the commercial competitiveness of business and industry prevail. But my hunch is that, without foundation interest and support, we would not have learned so many worthwhile lessons along the way.

PEOPLE, PEOPLE, PEOPLE

There's an old cliché in philanthropy on which foundation officials often rely when they try to explain what foundations do: "We don't fund proposals; we fund people." In other words, behind any proposal stands the person or persons who will make what is being proposed a reality. That's true enough.

But foundations also support people more directly. Indeed, the record of philanthropy in support of individuals is well-established and brimming with examples. Who has not heard of the MacArthur Fellowships (the so-called genius awards)? Not to mention the Rhodes Scholarships — and the Danforth, Mellon, Ford, Rockefeller, and Woodrow Wilson Fellowships? And the list could go on.

Scholarships and fellowships have been and will continue to be mainstream programs for foundations. However, I intend to focus here on efforts by foundations to improve both the quality and the quantity of individuals who serve education, e.g., teachers, principals, superintendents, counselors, teacher aides.

Foundation interest in education staffing has remained strong since the end of World War II. Like colleges and universities, the schools are labor-intensive enterprises; thus it is not surprising that certain foundations have chosen from time to time to focus on the "people" of schools: Danforth on principals; Ford and Carnegie on teachers; Rockefeller on superintendents; and a host of national, regional, and community foundations on teacher aides, parents, and school board members.

If the interest in people has been sustained, the form of that interest has varied considerably. In some instances, a focus on people has taken precedence over a focus on program. In the 1970s, for example, the Rockefeller Foundation developed and supported efforts to increase the number of minority superintendents and district-level administrators. Although the program elements — mentorships, national seminars — were important, the fellows themselves were key. Each fellow was carefully selected, carefully placed in internships, and given special attention. In other words, the program was shaped to fit the individual, not the reverse.

Other foundations supported efforts to improve university preparation programs for superintendents and central-office administrators. Thanks to the interest and support of the Kellogg Foundation in the 1950s and the early 1960s, for example, many training programs for educational administrators introduced the social sciences — economics, political science, sociology — into the sequence of academic coursework and began attending to the critical-thinking and analytic skills of their students. Observers who followed those efforts say that the changes transformed those programs and influenced many others.

In the late 1960s and early 1970s the Ford Foundation attempted to make urban schools the focus of a number of university-based training programs for school administrators and to recruit minorities and women for those programs. Whether the programs actually became more sensitive and responsive to the full needs of urban schools is debatable, but the effort did succeed in attracting more women and minorities to the ranks of prospective administrators. Though not entirely successful, this Ford Foundation effort sought to combine the focus on individuals (typified by the Rockefeller Foundation program) and the focus on programmatic reform (typified by the Kellogg Foundation program).

Sometimes a strong focus on individuals virtually guarantees the success of a program and simultaneously draws criticism. The Ford Foundation was the object of such criticism in the 1960s because of its support for the Master of Arts in Teaching (M.A.T.) programs in colleges and universities. Critics argued that the M.A.T. programs creamed off the best of the liberal arts graduates but failed to encourage average candidates to enter teaching.

Perhaps that is true, but the M.A.T. programs also had two other important outcomes. First, they brought hundreds of college graduates into teaching who would not have gone into the profession via traditional undergraduate teacher education programs. And second, because they were master's-level programs, they caused some institutions of higher education to offer graduate teacher training for the first time. Moreover, many educators now believe that

Illustration by Kris Hackleman

M.A.T. programs — which emphasized an extended internship — demonstrated the importance of the clinical phase of teacher preparation, a phase that is currently the focus of renewed interest on the part of several foundations.

Still another kind of direct support for people — provided in a variety of forms by a variety of foundations and corporations — is the teacher institute or workshop. Typically, these educational services either augment subject-matter knowledge (most often at the secondary level) or explore a particular curricular issue (e.g., substance abuse, an area in which such foundations as Conrad Hilton and Ewing Kaufman have taken the lead). Institutes and workshops for teachers are often useful in the short run. But many programs of this type are not strategically related to the contexts in which the teacher participants work; therefore, some of the intended effects of the training are negated when the teachers return to their classrooms. In addition, free-standing institutes or programs of this kind rarely have any impact on the preservice training of teachers or on the inservice training that schools and school districts provide.

Just as foundations have directly supported schoolpeople, they have also supported studies *of* schoolpeople. A few years ago, for example, the Carnegie Corporation established a national task force on the profession of teaching. As a result of the task force report, a brand new venture, the National Board for Professional Teaching Standards, was initiated — with support from a variety of independent and corporate foundations. This board is currently developing performance standards for practicing teachers. Two other foundation-supported reports, *Tomorrow's Teachers* and *Tomorrow's Schools*, were the products of the Holmes Group, a consortium of 96 universities organized to reform preservice teacher education.

Critics maintain that reports such as these are simplistic and that foundations use them to exercise leverage or to look responsible without having to spend large sums of money. And no doubt there have been studies that were simplistic or that were inexpensive substitutes for taking action. Yet the study is a useful strategy; it focuses public attention on an issue that had previously been ignored. The study of hunger in rural America that the Field Foundation supported in the 1960s is one solid example. So are James Bryant Conant's study of the American high school (supported by Carnegie) and the more recent studies of schools and of at-risk children, supported by the Committee for Economic Development. (The CED reports had an added dimension: the heavy involvement of business leaders in systematic studies of education-related issues.)

Clearly, studies not only attract attention to an issue but also educate the individuals who take part in them. Studies set the stage for useful public debate. Some studies also provide guidelines for future action — sometimes by analyzing alternatives for dealing with an issue and sometimes by proposing new programs (as the Carnegie Task Force did for practicing teachers and the Holmes Group did in the area of teacher preparation).

Indeed, the published evaluation of a major foundation-funded program to improve the schools was the spark that ignited foundation funding of staff development activities in the 1970s. Early in that decade the Ford Foundation released *A Foundation Goes to School*, an evaluation of its Comprehensive School Improvement Program. One of the major criticisms of that program was that it paid relatively little attention to the further development of teachers already on the job. The foundation responded by mounting a substantial staff development effort. And Ford was hardly alone. A quick review of school reform efforts supported by foundations over the past 25 years shows considerable emphasis on teacher workshops, seminars, and training sessions. Staff development, though not necessarily the original intent of a given project, was (and is) often seen as essential for successful implementation of the proposed changes.

Sometimes, foundation attention to school personnel is more specifically targeted. In the past few years there have been a Rockefeller program for humanities teachers, a Carnegie program for science teachers, and a Ford program for mathematics teachers. Half a dozen foundations (including Lilly, Edna McConnell Clark, Champion, and Annie Casey) focus on middle schools and their teachers. The DeWitt Wallace-Reader's Digest Fund is supporting a study of preparation programs for middle school teachers.

As teacher shortages loomed in the 1980s, foundations and corporations funded programs to convert professionals from other fields to teaching. Universities developed "mid-career" programs, often at the graduate level and aimed at engineers, scientists, business executives, and retired military officers. The goal was to transform these recruits into teachers of science and mathematics. Acute teacher shortages in science and math drew the attention of several corporate funders, especially those whose corporations were associated with or dependent on technology.

Like science and math teachers, minority teachers have long been in short supply. Minority enrollments in the schools are continuing to climb, while at the same time the number of minority teachers is going down. Foundations and corporations have been called on to support a variety of activities to bring more minority candidates into teaching. Recruiting New Teachers, a national campaign supported by several foundations and corporations, has been effective in generating interest among minorities in teaching as a career. Other efforts — such as Ford's teacher preparation program for minorities — have sought to increase the number of minority teachers by improving their undergraduate preparation. In a related effort, the Rockefeller Brothers Fund is supporting efforts to recruit more minority students from liberal arts colleges into teaching.

If minority teachers have been a matter of some concern, so, certainly, have at-risk children and adolescents. Yet, until recently, school counselors have attracted surprisingly little attention. Now the Rockefeller Foundation is supporting and expanding a program for educating at-risk youngsters that includes considerable counseling of the children and their families. That program grew out of earlier work at Yale University by James Comer and others, which focused on building teachers' capacities for preventing problems in the classroom. The earlier work, much of it related to counseling, was supported by public funds, by community funds, and by the Ford Foundation.

Just a cursory review of other foundation-supported "incentive" and "prevention" programs — the ones aimed at enticing at-risk students into courses for the college bound, at helping parents to be more effective, or at preventing teenage pregnancies, substance abuse, or dropping out — demonstrates the important role now accorded counseling and related skills. Examples of such programs abound; nationally, the sponsoring foundations include Kellogg, Mott, Commonwealth, DeWitt Wallace, and Annie Casey. While these programs tend to include some training for the individuals who are expected to carry on the counseling activities, little attention is currently being paid to the initial preparation of counselors, and there has been little foundation support of late for studies of the counseling field.

Similarly, although reports in recent years

Many foundations have learned the lesson that a child's education in school needs out-of-school nurturing.

have documented the importance of the principal to school effectiveness, foundation support directly targeted on principals has been — and continues to be — modest. The Danforth Foundation and, earlier, the Kettering Foundation have been the exceptions. Danforth has stood virtually alone as a major funder of efforts to improve college and university preparation programs for principals (although the Kellogg Foundation maintains an interest in this area that stems from its earlier work with training programs for school administrators at other levels). More attention has been paid to principals on the job. Early on, Kettering funded institutes for active principals through its I/D/E/A program. Today, many foundations and corporate-contributions offices across the nation support local or statewide principals' academies or principals' centers.

Meanwhile, the history of teacher aides offers some interesting lessons. Back in the 1950s, the Fund for the Advancement of Education (a Ford-supported foundation) provided grants for experimenting with the use of teacher aides, starting in Bay City, Michigan. Teacher unions vigorously opposed the introduction of these nonprofessionals into classrooms, fearing that they would undermine teachers and perhaps even damage children. The experiment had its faults; for example, the classes to which aides were assigned were expected to be larger than those without aides. But the overall impact was positive. Today, teacher aides are commonplace in many classrooms across the nation; they are considered an integral part of school staffs and are supported with public funds. Ironically, many teacher aides are now members of, or are affiliated with, the very teacher organizations that originally opposed them.

The movement for school volunteers also had its roots in philanthropy. Volunteering to "help out" in the schools was hardly a new idea, as the history of parent/teacher associations demonstrates. But work in the late 1950s and throughout the 1960s — often supported by foundations, many of them local — gave rise to the systematic organization, training, placement, and supervision of volunteers in the schools, where they did everything from assisting administrators and teachers to tutoring students. Unlike the attempt to introduce teacher aides, the movement for school volunteers was embraced by most teachers and school officials. Because the volunteers were to be trained and systematically scheduled to work, much of the hit-or-miss character of earlier volunteer programs was rectified.

More recently, the use of paraprofessionals and of volunteers has extended from the school to the home. Support for such projects — from Carnegie, Mott, Ford, and a host of corporate and community foundations — has grown exponentially in the past few years. Clearly, many foundations have learned an important lesson: a child's education in school needs to be nurtured at home and in the neighborhood.

Meanwhile, school board members have also been receiving modest philanthropic attention. The Danforth, Spencer, and Prudential Foundations — to name but three — have supported studies of school board members. Foundations have also supported the training of school board members, generally through grants to the National School Boards Association and its state affiliates (for members of local school boards) or to the National Association of State Boards of Education (for members of state boards). Recently, the city of Chicago — which must now have school councils at every public school — has been the recipient of many grants to train and assist the hundreds of parents, citizens, and others who are serving on these councils. Foundations in and around Chicago — from MacArthur and Joyce to a bevy of community-focused ones — are actively involved in projects related to the swirl of reforms that this change in school governance has engendered.

Beyond school staffs and school board members, foundations have also funded other kinds of individuals who play important roles in shaping education and the schools. It is sometimes difficult to determine whether support of this kind is intended to generate a product or to encourage a particular kind of person. Many foundation grants have a product as their goal — but the person involved in the process of production is simultaneously nurtured.

As I have mentioned previously, almost every foundation funds people to carry out studies or analyses of issues, problems, or aspects of schooling. I intend to focus here only on examples of support given to people involved in the field of education in other capacities. For example, some foundations — particularly, the Carnegie Corporation — have supported programs to enhance the ability of state legislators to understand and participate in the area of educational policy making. Other foundations — Danforth, Ford, and Revson are three that come immediately to mind — have supported efforts to acquaint various kinds of education officials with the process of education policy making at the state and federal levels. With foundation funding, such agencies as the Institute for Educational Leadership in Washington, D.C., and the Education Commission of the States in Denver have provided leadership in this endeavor. Foundations have likewise funded programs to help lawyers, judges, and educational journalists become better informed on various issues related to education — school desegregation and school finance, among them.

Sometimes, too, foundations support the education and training of new kinds of specialists who will serve education directly. During the 1970s, for example, when school finance plans began to face legal challenges, Carnegie, Spencer, and Ford supported university programs to train a cadre of individuals with sufficient background in education, economics, politics, and the law to work effectively in the field of school finance.

Finally, there have been efforts on a more general level to develop leaders for education. Programs such as the National Urban Fellows, the National Rural Fellows, and the Ford Foundation's Leadership Development Program are examples of attempts to cultivate people — most often from outside the traditional ranks — who will be able to initiate and manage the development of educational activities, broadly defined, at the grassroots level. Unlike many of the other "people programs" I have discussed here, these more general programs take a long view of leadership development. Likewise, their effectiveness must be evaluated over a lengthy interval, not in the year or two immediately following the fellows' involvement in the program.

CURRICULUM AND SCHOOL IMPROVEMENT

What students ought to be learning is a subject of continuing analysis and debate. That is as it should be, for instructional programs need to be changed as new knowledge is discovered, as new skills are required, and as better ways are found to help students learn. Thus it is not surprising that foundations have long been involved in curriculum development. Indeed, there is hardly a foundation of note that has not, at one time or other, supported the development of some kind of curriculum or other.

The heyday of the "new curricula" came, of course, in the late 1950s and early 1960s, when an alphabet soup of programs was concocted in response to Sputnik I: PSSC physics, SMSG math, BSCS biology, Chem-Bond chemistry, and, later, MACOS (Man: A Course of Study). The developers of many such programs — often committees of scholars in the academic disciplines — were supported by foundation funding. The programs were used extensively in schools in the early 1960s. Who can forget the attention paid to the "new math" or the teacher institutes that the National Science Foundation sponsored to teach teachers to teach it?

In hindsight, the prevailing wisdom of the day regarding curriculum reform was limited. By and large, the new programs had academic integrity in terms of subject matter. But many teachers received little or no training in how to teach them. And most of the programs succeeded only with *some* students, generally those who were college bound or who were already successful academically.

Moreover, few teachers were involved in the design and development of these new programs. Indeed, some of these programs were intended to be "teacher proof" — i.e., not subject to variation at the discretion of individual teachers. However, that proved to be wishful thinking. And when able teachers modified the programs to suit their students' backgrounds and styles of learning, the new programs worked better. But that lesson did not sink in immediately, and some foundations persisted in viewing the curriculum as the key to improving schools (rather than as just one of several factors that need to be attended to in order to reform the schools and to improve the performance of students).

In the meantime, foundation support of curriculum development accomplished other objectives, such as the discovery of new knowledge and the opening of new curricular areas. The Spencer Foundation, the Lilly Endowment, the Hewlett Foundation, and the McDonnell Foundation, for example, funded efforts that yielded better understanding of learning and of ways to help children learn. Many foundations were involved in the development of new curricular areas, from early support for Advanced Placement courses to more recent programs including women's studies, black studies, Hispanic studies, environmental studies, drug education, and youth service.

Just as foundations have engaged in curriculum development, some of them have also supported the development of more comprehensive approaches to improving the entire instructional program. During the early 1960s, for example, the Ford Foundation had its Comprehensive School Improvement Program (CSIP), which attempted to bring together and orchestrate the use of new curricula, new technologies, teaching teams, variable class sizes, nongraded school units, and flexible scheduling to create a net effect far greater than could be realized by the innovations individually. This program and others that were somewhat similar demonstrated the usefulness of many innovations, some of which are now commonplace in schools. These programs also demonstrated the utility of introducing and integrating several innovations at a single site. Clearly, the introduction of one innovation — team teaching, for example — has implications for curricula, for instructional schedules, for class size, for technology, and so on.

The CSIP did not live up to the hopes that rested on it, largely because the expectations were too ambitious and the support — especially in terms of time — too limited. However, if one looks at more recent school reform efforts — the Alliance for Restructured Education or the Coalition of Essential Schools (each with substantial foundation support from the likes of Pew, Carnegie, Melville Corporation, DeWitt Wallace-Reader's Digest, and MacArthur) or such other efforts as the school networks of the Panasonic Foundation, the Edna McConnell Clark Foundation, and the Annie Casey Foundation — one lesson stands out: reforming schools requires changing many things, not just one or even a few.

In part, the less than successful outcomes

Illustration by Kris Hackleman

of such endeavors as the Ford Foundation's CSIP can be blamed on the times. The call for excellence that followed the passage of the National Defense Education Act and the start of space exploration was largely superseded in the 1960s and the 1970s by the civil rights and the human rights movements. Rather than curriculum and instruction, issues of equality and equity dominated the education agenda and consequently captured the attention and support of foundations.

At the same time, foundations began to support efforts to benefit students directly, without having to deal with schools and all their trappings. But the outcomes of such practices as "teacher-proofing" curricula have been disappointing. Students have benefited more from such foundation-supported opportunities as working with tutors in and outside of school or being supplied with learning kits, some of them computerized. However, like remedial or compensatory education programs, these student-focused innovations have done little to change how schools work or what they do.

Another means of bypassing schools and going directly to students — the use of incentives — was tried successfully in a sample of public schools in the Southeast in the 1960s and became increasingly popular among individual philanthropists in the 1980s. Students, often youngsters at risk, were guaranteed financial aid for postsecondary studies if they would stay in school, graduate, and gain admission to a college. But such incentives proved insufficient on their own to keep some youngsters in school. As the programs matured, they added services — counseling and mentoring for students, various kinds of supports for parents — that dramatically curbed the dropout rate. In short, what started out to be a simple program directly focused on students has also had to take into account the school and family circumstances of the student participants and to work to improve those circumstances.

Other foundation-supported efforts aimed at specific groups of students profited from this lesson and began to deal with the students' home and school situations. Two examples of this enlightened approach are programs sponsored by the Kaiser Foundation and the Josiah Macy Foundation that are intended to encourage and prepare minority youngsters to choose careers in the health professions. Moreover, there is hardly a school reform project today — whether foundation-funded or not — that does not take into account the students' out-of-school circumstances.

Foundations have bypassed the schools to help children in other ways and with substantial impact. For example, many of today's child advocacy groups got their starts with foundation support. In addition, foundations aided efforts to desegregate the schools and to open them to groups that had previously been denied access, e.g., the handicapped. Some foundations funded research that proved useful to those pressing lawsuits; others helped to marshal community support for schools under order to desegregate; still others supported projects to train schoolpeople to work with student populations characterized by growing diversity. Clearly, equity was the driving force in these efforts, although quality of schooling also entered into the equation.

There is hardly a school reform project today that does not take into account students' out-of-school lives.

Foundations had other equity issues on their agendas as well: school finance reform, access to information for students and parents, equity in the governance of schools. One of the most widely debated attempts to bring greater equity to school governance was the decentralization of the New York City schools, an effort supported by the Ford Foundation. The immediate outcomes included a teacher strike and much community upheaval. But the New York City experiment was a harbinger of a national movement to broaden the participation of communities in the affairs of their schools.

Much can be said — and some has already been written — about foundations and their involvement in these equity issues. Certainly, the issues provided fertile soil for philanthropic initiatives. There was a need for independent studies and research; for starting new community agencies and supporting established ones; for convening meetings, seminars, and workshops; and for supporting policy analysis. Moreover, given the ferment within the public sector in the 1960s and beyond, there was a need for most of this work to be done by non-public agencies. All these kinds of activities were familiar ground for foundations.

Looking back on the years when equity was the primary focus of school improvement, it is fair to conclude that foundation funding contributed substantially to an infrastructure that we now take for granted and on which we rely, both nationally and locally. Think, for a moment, about some of the agencies that were spawned or strengthened during that time: the Children's Defense Fund, the National Coalition of Advocates for Students, the National Committee for Citizens in Education. Think, too, of the education and legal defense arms of such major national groups as the National Association for the Advancement of Colored People, the National Organization for Women, the Mexican-American Legal Defense and Education Fund, and the Native American Rights Fund — not to mention the many state and local advocacy groups for children, parents, and citizens at large.

Supporting this infrastructure is essential if the U.S. is to have the kind of public schools that its democracy requires: schools that are accessible to all, fair, harmonious, and high in quality. In other words, just as the public needs to support its public schools, so must foundations support voluntary and independent agencies that ensure that the public schools serve all children well — with quality and with equity.

As the 1980s approached, equity remained a focus, but interest in improving school programs was growing as well. This time around, the approach to improving instruction has been different in some important ways from that taken after Sputnik I. First, today's approach has been more comprehensive, extending beyond the school to the community. We have come to realize that a child's educational achievement is not solely determined by schooling but is also related to such factors as health care, family structure and economic status, and availability of social supports. Second, school improvement efforts of the 1980s and 1990s have been more participatory than heretofore, involving teachers, principals, and parents as well as central administrators and school board members. There's more bottom-up decision making than in earlier decades and fewer program mandates from the top down (although there are increasingly more demands for outcomes).

The more broadly framed initiatives now under way have attracted a larger number of funders. (Today school reform efforts are being sponsored and supported by such foundations as Edna McConnell Clark, Pew, Lilly, Panasonic, RJR Nabisco, Coca-Cola, and others.)

We are also seeing more emphasis on preventing later problems. This is one explanation for the greater attention that foundations are currently paying to middle schools and to the early and preschool years of education. The response of foundations to the issue of school dropouts is another case in point. Foundation-sponsored projects have shifted from a focus on recovering individuals who have left school to a focus on developing programmatic changes that will prevent them from leaving in the first place. Other initiatives, such as the New Futures Program of the Annie Casey Foundation, hope to effect programmatic and policy changes in health and social services as well as in the public schools. Meanwhile, the Robert Wood Johnson Foundation seeks to prevent future problems by locating health-care clinics in schools.

Clearly, the current school reform movement is based on the idea that, for schools to improve, they have to *do things differently* — not just to do better at providing more of the same. As the decade progresses, we will be able to assess the impact of recent reform efforts on school outcomes. What is already clear, however, is the fact that foundations have learned a great deal about children and schools. They now see that a relationship exists between educational services and other services for children. They see the need for a holistic approach to school improvement. They see the need to focus on prevention (which means starting at the preschool level or even earlier). And they see the need to fund efforts over longer periods of time (since there are no magic bullets or quick-fix solutions).

WHAT lessons can be learned from foundations' work with the public schools over the past three decades? The profoundest one, I think, is encompassed in a saying common among philanthropists: "For every rule there is an exception."

Foundations often fund projects or studies that they once considered out of the question. The reasons cited for not supporting those enterprises are varied: they're outside a foundation's usual program, they're too risky, the people involved are unknowns, the costs are too high, no one cares about the potential outcomes, the programs cannot be replicated, and so on and so forth. And yet the particular project or study gets funded. That inconsistency serves to remind us of the importance of flexibility. Foundations need to develop program priorities that maximize the use of their always limited resources, but they also need to be ready to fund the unexpected better idea, plan, research, or project.

If there is a general lesson for those interested in obtaining foundation funding, it probably goes something like this: by and large, foundations support the general areas that they have announced they will support (e.g., schools) and the specific aspects of those areas that they have announced they will support (e.g., teacher education) in a manner that they have previously laid out in some detail (e.g., support for demonstration projects but not for research). But foundations also can — and should — make exceptions.

Clearly, foundations differ. They differ in size and in the scope of their focus (national, regional, state, or local). They also differ in their interests and in their points of view. Some foundations are liberal; others, conservative. Most are somewhere in between. Some foundations prefer strategies that help to shape the discourse on an issue or problem; others prefer to take the initiative in determining how the work should proceed. Some foundations prefer to react to the proposals of others; others like to generate their own projects. Some are people-oriented, others favor research, and still others seek institutional change. At the very least, however, foundations have a responsibility to stay well-informed about the issues and to be ready to react to proposed solutions.

Foundations differ, too, in how cautious they are with their funds. Some foundations — often those that are smaller and less well-known — have reputations for putting funds into "risky" (which sometimes means "less conventional") ventures. Grants made in the past by such foundations as Edward Hazen, Field, George Gund, A. L. Mailmann, New World, and Rosenberg have fallen into this category. What is "risky," of course, is open to debate.

Some foundations or corporate-contributions offices prefer to function as "partners" with other agencies rather than to be sole funders. Other foundations and corporations prefer to be the sole supporters of particular ventures. For what it's worth, I have seen a decided increase in cooperative funding over the years. Cooperative funding is to the advantage of the grantors (for whom it spreads the risks — not to mention the costs) *and* the grantees (on whom it confers wider credibility and more chances for future funding).

Foundations now see that a relationship exists between educational services and other services for children.

If foundations differ, the public also differs on what constitutes a "good" foundation. Foundations are private organizations with a public trust. They are intended to function for the public good and are — at least to some degree — publicly accountable for their actions as well as their finances. Too simply put, their task is to make independent judgments about the allocation of limited resources to support activities of others that usually (but not always) benefit a larger public in a particular area or field.

That area or field is determined through an elaborate process that brings into play the foundation's human and financial resources, its mandate (as determined by its charter), its place in the overall philanthropic picture, its style, and its knowledge of the field in which it wishes to operate. To be effective, a foundation requires a deep understanding of the field in which it chooses to work — its issues, its problems, its leadership, its leverage points, its human and other resources, its structure, its history, its culture, its ways of learning, and so on. The characteristics of a given foundation and those of the field in which it chooses to operate interact to produce the foundation's rationale and its modus operandi. Once these have been established (though they never fully are), a foundation strategy can be built and implemented.

Clearly, the process involves a lot of judgments along the way. And those judgments bring into play the human factor. Foundations are staffed by *people*. These people

are expected to make evaluations, which often become the basis of recommendations to foundation officers, board members, or directors. I need to dwell on the human factor, because it helps to explain both the successes and the failures that foundations have experienced in the area of public education over the past 30 years.

For example, many foundations focus on the obvious. And sometimes they ought to. Remember when television became part and parcel of our lifestyle? It was important for foundations to collaborate with educators in attempting to harness this new and powerful medium in the service of the schools. That was a useful — if, in hindsight, less than fully productive — endeavor. Similarly, a number of foundations have recently focused much of their effort on the middle school. As a result, we have more and better knowledge about early adolescents and their special needs. Foundations and educators can now work together to act on that knowledge and thus to make middle schools more effective.

Sometimes, however, attending to the obvious is synonymous with following the fad. And although that may not be altogether wrong or bad, it sometimes substitutes for careful thinking. For example, the proliferation of projects that use financial incentives to motivate at-risk students to complete high school and to go on to college certainly has a laudable goal. But the proliferation is also distressing. Selecting a small number of students for assistance and concentrating on them will help those youngsters. But what about other students who are equally needy and equally deserving? Might the funds be better used in efforts to improve some feature of schooling — the counseling program, perhaps — for the many? That is a matter of judgment. My point is simply that some programs have received foundation support because of the popularity of the approach, not because of its special utility in specific contexts.

Still another fad-like activity in recent years was the adopt-a-school movement among businesses and industries. Unfortunately, some corporate givers supported "adoptions" solely to keep up with other corporations. Thus some — nay, many — of these efforts were neither well-conceived nor usefully implemented. To state the matter more bluntly: the public-relations aspects of some of these arrangements clearly outweighed whatever substantive assistance they provided. On the other hand, these programs did and do serve to bring schools and businesses together.

If some foundations have attended to the obvious and others have followed the fad, there have also been foundations that have refused to make grants directly to schools. For some, this decision has been a matter of policy — they are interested in child advocacy, let's say, or in accountability, and they believe that these matters are better addressed by outsiders than by insiders. Other foundations (whose number is growing smaller) do not wish to have their funds commingled with public funds within a school system — particularly when the foundation's interest is not systemwide but focused on only one project or school. In such cases there are at least three other funding options for schools seeking assistance: school system foundations, local education funds (independent foundations that concentrate on schools or on school-related grants), and community foundations.

In recent years, too, some foundations have yielded to the quest for the simple answer, the quick fix, the "silver bullet." Oh, that improving schools were so simple! Earlier, I recounted the experiences of foundations that believed — mistakenly — that when you change the curriculum, you change the schools. They failed to realize that teachers and other school staff members need to be assisted to make a new program work. There also were (and still are) foundations espousing the position that being a teacher requires little or no special education or training. Clearly, the training of education professionals — teachers, counselors, administrators — is in need of reform, just as is the training of businesspeople and of professionals in other fields. However, it has become increasingly clear that the craft of teaching requires not only subject-matter knowledge but also knowledge about children and cultures, pedagogical skills, and clinical experience. To think otherwise is, at best, simple-minded and, at worst, ill-serving of children.

Similarly, one of the continuing issues for foundations bent on improving the schools is the further development of teachers on the job. Many foundations have supported (and are supporting) fellowship programs and special institutes for teachers. Most often, the skills of individual teachers are enhanced by their participation in these programs. But too often these teachers work in settings in which they cannot use these new skills. For example, unlike faculty members in colleges and universities, teachers often have little say regarding curriculum content, pedagogy, or instructional materials. Moreover, teachers often lack the kinds of material and human supports that are necessary if they are to make full use of the new skills they have gained. Foundations need to see the whole picture and to deal with the context in which teaching occurs, if they expect teachers to make use of what they have learned in foundation-sponsored off-site programs.

In order to help make schools better, foundations need to have an up-to-date understanding of the schools. Such understanding enables foundations to develop effective funding strategies and to adapt them as circumstances warrant. One can examine the record and find foundations — both large and small — that have had a substantial and positive impact on the schools. Positive impact is not so much a matter of how much money a foundation can grant as it is a matter of how — and for what purposes — the funds will be used.

There is much more to be said about the impact of foundations on the public schools. But the record is still being written, for the partnership did not really begin until after World War II. Moreover, the level of foundation participation in the schools did not become significant until about 30 years ago. Both parties — schools and foundations — first needed to get acquainted, to understand one another, to learn to work together, and to review and assess their respective functions, responsibilities, and progress.

Because they are all so close to the schools, virtually all Americans believe that they know what is best for the schools. Foundations believe that too. However, as private organizations with a public trust, foundations need to believe that they know what issues and problems need to be addressed because they understand the schools from hard study, experience, and analysis. Only then can foundations truly work with others to make our public schools what we want them to be — fair, responsible, productive, joyous, and humane places of learning for children and youth. K

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The Case for Performance-Based Licensing

As part of a strategy for staffing the schools with skilled teachers, a long-term plan of basing licensing on well-conceived, carefully administered assessments of teaching performance has great promise, Mr. Murnane suggests.

By Richard J. Murnane

AS PART OF A general effort to improve the quality of public education, many states are stiffening the requirements that candidates for a teaching license must satisfy.[1] Some states are mandating that candidates complete more preservice coursework; others are raising the minimum scores that candidates must receive on standardized tests. In the first part of this article, I will argue that these changes are ill-advised, because they provide the wrong incentives for both candidates and training institutions. In the second part, I will describe a licensing strategy that holds great promise for ensuring that only individuals who can successfully teach children will obtain teaching positions in public schools.

WHY TRADITIONAL LICENSING REQUIREMENTS ARE FLAWED

In the traditional system, a college graduate becomes licensed to teach a particular subject or group of grades by completing a state-approved teacher training program offered by a four-year college or university. These programs obtain state approval by demonstrating that they require students to complete a series of courses covering material specified by the state. The programs typically include courses in the foundations of education,

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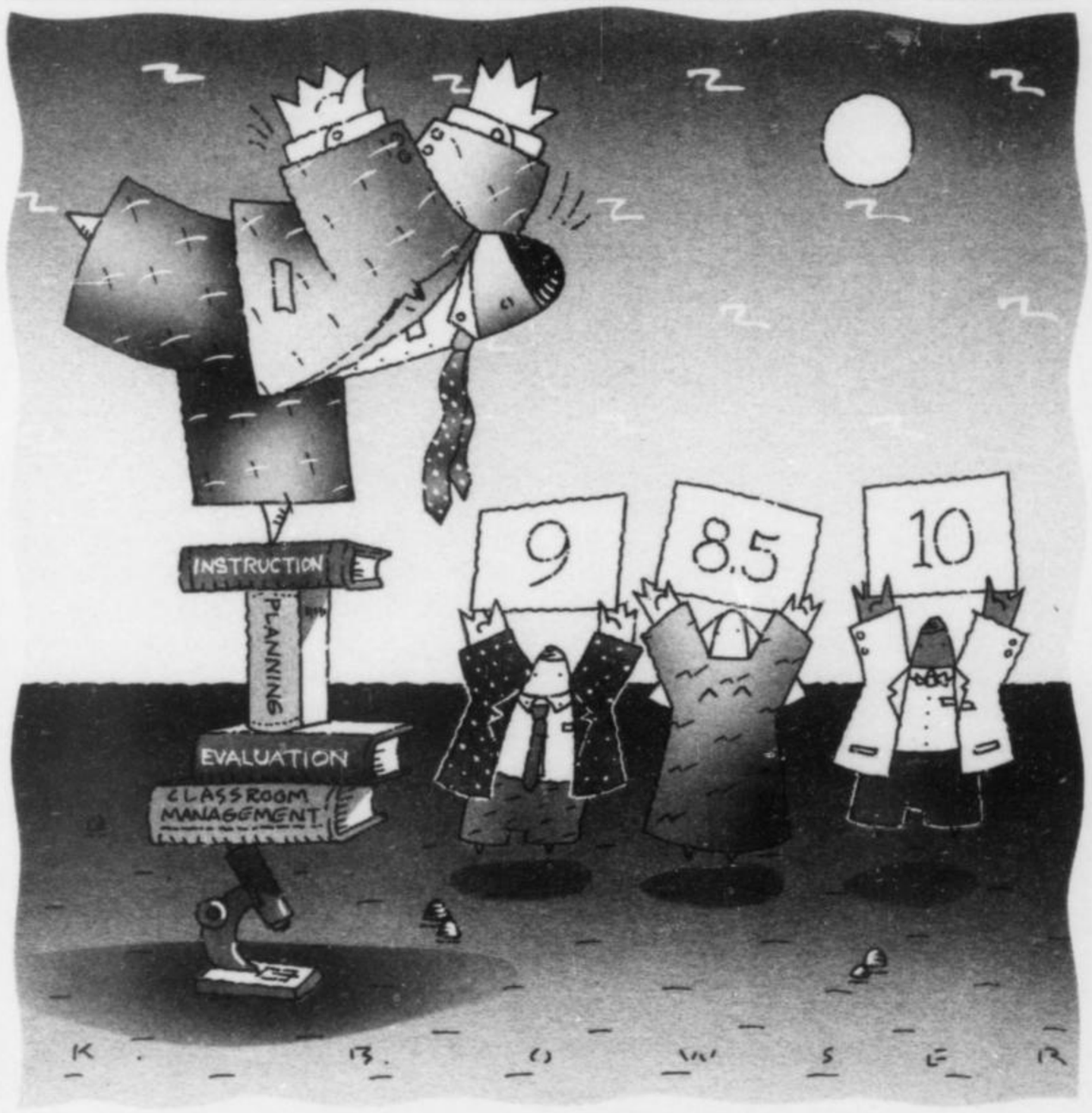


Illustration by Ken Bowser

teaching methods for the particular subject specialty, curriculum development, and child psychology.[2] Most states also require that applicants score above a prespecified level on one or more multiple-choice tests, most commonly parts of the NTE.[3] While such conventional licensing requirements undoubtedly prevent some incompetent people from teaching, I believe that, on balance, they do not promote the goal of staffing all schools with skilled teachers.

There are three related problems with what might be called an "input approach" to licensing – that is, requiring students to complete a specified program of preservice courses. The first is that the requirements create a captive audience for the courses involved. Without the pressure to keep courses attractive to students, the quality of instruction often declines. Second, innovation is sometimes stifled by the fear that a radically different approach to teacher education would not be approved by the state. Finally, the list of requirements – along with the knowledge that some of the courses will be poorly taught – deters some talented college students from preparing to teach, especially those who might otherwise consider teaching for a number of years before moving on to another profession.

Some observers find it of little concern that preservice teacher education requirements deter some people from entering teaching on a temporary basis. They argue that the public policy goal is to train teachers who will spend their entire careers in education. I disagree. In a society with abundant opportunities for talented college graduates and a tradition of mobility in the labor market, it will never be possible to persuade two million graduates to teach their whole working lives. Public rhetoric that implies personal failure when a teacher leaves the classroom after successfully teaching for a number of years may deter many capable people from ever setting foot in a classroom.

Many dedicated teachers do spend their entire careers in teaching. Our schools depend on such teachers. But, given even the most optimistic projections of teacher salary increases, there will never be enough skilled career teachers to staff the nation's schools.[4] We must find ways to attract larger numbers of talented college graduates to teaching, to help them learn the skills needed to teach effectively, and to induce them to stay long enough – at least four to five years – to make a significant contribution.[5]

Requiring a minimum NTE score dramatically reduces the number of minorities licensed.

The requirement that candidates score above a prespecified cutoff point on a standardized multiple-choice test, such as the NTE, is also ill-advised. The "core battery" of the NTE includes multiple-choice tests of communication skills, general knowledge, and professional knowledge. The most evident consequence of requiring a specified minimum NTE score is that it dramatically reduces the number of college graduates from minority groups who obtain teaching licenses. This effect occurs for three related reasons. (Here I focus on black college students because that is the nature of the evidence.) First, the average scores of black applicants on these multiple-choice tests are at least one standard deviation below the average scores of white applicants. Second, cutoff scores tend to be set at a level such that the majority of white applicants qualify, while a significant percentage of black applicants do not.[6] Third, aware of these patterns, many black college students decide not to prepare to teach.

The use of standardized multiple-choice tests in teacher licensing programs is extremely controversial. Part of the controversy stems from the very low correlation between scores on these tests and measures of teaching effectiveness. As a recent comprehensive review concludes: "The available evidence is none too good, but it indicates that teacher tests have little, if any, power to predict how well people perform as teachers, whether that performance is judged by ratings of college supervisory personnel, ratings by teachers, student ratings, or achievement gains made by students."[7]

Defenders of the tests argue that the lack of correlation between test scores and measures of teaching effectiveness is not the issue. They maintain that the tests screen out applicants who lack the basic literacy, numeracy, and writing skills to serve as successful role models for students and to write coherent, gramatically correct letters to parents. I agree that all teachers should write and speak coherent English. And taxpayers must believe that there are "standards" for becoming a teacher if they are to support the salary increases needed to attract and retain effective teachers.

But the core issue is whether the use of multiple-choice tests in state licensing procedures increases the likelihood that our nation's children will be taught by effective teachers of varying backgrounds. I question that it does, for several reasons. First, items assessing "general knowledge" inevitably reflect to some extent the majority white culture, and this is one reason black applicants tend to score lower than white applicants on such tests. Second, multiple-choice tests of "professional knowledge," which are part of the licensing requirements in 24 states,[8] are not reliable measures of whether applicants possess the knowledge needed to teach effectively, because the test items rarely provide the rich contextual information needed to respond thoughtfully to a problem situation. Nor do multiple-choice questions allow applicants to offer creative responses. These are critical limitations. Recent research has shown that the right answer to almost all questions about how an effective teacher should respond in a particular classroom situation is: "It depends."[9] Third, the use of the professional knowledge test of the NTE provides the wrong set of incentives to applicants. Instead of learning to teach effectively, applicants with low scores devote attention to learning the "correct" answers.[10] I doubt that hours spent in learning to pass multiple-choice tests of professional knowledge improve the quality of teaching.

At this point, some readers may infer

that I do not view learning how to teach as an especially difficult challenge. This is not my position. In fact, I agree with Lee Shulman, one of the nation's most thoughtful analysts of teaching, who wrote, "Our question should not be, Is there really much one needs to know in order to teach? Rather, it should express our wonder at how the extensive knowledge of teaching can be learned at all during the brief period allotted to teacher preparation."[11] The question is not whether there are important things for aspiring teachers to learn. The question is how to create incentives for institutions to develop high-quality training programs and incentives for aspiring teachers to participate in them.

Traditional licensing requirements are not effective because, while the state can mandate that teachers graduate from preservice training programs and can specify the material that must be covered in these programs, no set of requirements can guarantee that the material will be taught well enough to benefit participants or to attract academically able students.

A NEW DIRECTION FOR LICENSING REQUIREMENTS

The challenge is to design licensing requirements that draw talented college graduates to teaching *and* to provide opportunities and incentives for aspiring teachers to search out and complete training programs that provide them with the skills they need to teach effectively. In my view, an effective strategy for achieving these objectives has three parts. The first is a test of literacy and writing skills that all applicants for teacher training programs must pass. The second is the creation of many alternative training programs. The third, the linchpin, is a system of high-quality assessments of teaching performance that novice teachers must pass in order to obtain a long-term teaching license. I call this "performance-based licensure." I will describe the first two components briefly and then focus on the third and critical component.

A TEST OF LITERACY AND WRITING SKILLS

The need for a test of literacy and writing skills stems from the enormous variation in the graduation standards of the nation's high schools and colleges. Degrees do not guarantee competence, and all the nation's children should be taught by teachers who can communicate effectively with children and their parents. The test I propose differs from the current version of the NTE[12] in that it should adhere to four principles. First, the test should involve "constructed responses," in which applicants carry out tasks similar to those that teachers perform on the job. For example, candidates might be asked to write a letter to parents explaining plans for a field trip. Second, the content of the test should be made public after each administration.

> Applicants should be able to take the literacy test early in their schooling — perhaps in high school.

This step would provide prospective applicants with the information they need to prepare efficiently for the test and would facilitate public debate on whether the test assesses skills all teachers should have. Third, the responses should be graded by committees with adequate representations of minority group members who could detect differences in language usage stemming from cultural differences. Fourth, applicants should be able to take the test early in their own academic careers, as early as high school, when remediation is easiest. Adherence to these principles should ensure that newly licensed teachers do possess basic literacy and writing skills, while providing opportunities for aspiring teachers from all backgrounds to acquire the skills needed to pass the test.

The arguments of Shulman and his colleagues that subject-matter knowledge is necessary to teach well are compelling. In principle, assessing the subject-matter knowledge of candidates for teaching licenses makes sense. I have doubts, however, that the multiple-choice tests currently used in more than 20 states validly assess subject-matter knowledge. Consider the criticisms that many scientists and science educators level against the use of multiple-choice tests to measure student knowledge of science. These critics point out that multiple-choice items can fail to test science knowledge for several reasons: they can measure general knowledge and consequently be more indicative of I.Q. than of science knowledge; they can measure skill in ruling out multiple-choice options; they can encourage a simplistic view of science. As part of an evaluation of educational indicators, the National Research Council conducted a review of the released test questions from the National Assessment of Educational Progress science tests for 9-year-olds and 13-year-olds. One-third of the questions were found to be seriously deficient.[13] (To our knowledge no similar analyses of the NTE tests of specialty areas have been conducted.)

The problems of designing valid multiple-choice tests of science knowledge should warn us that extreme caution is needed in assessing the subject-matter knowledge of candidates for teaching licenses. In my view, the long-term solution is to design tests that require constructed responses and thus provide more valid measures of subject-matter knowledge than multiple-choice tests do. The costs of administering and grading such tests may be higher, but they seem modest relative to the high costs of either licensing teachers who lack critical subject-matter knowledge or failing to license teachers who possess the necessary knowledge but do not perform well on multiple-choice tests.

In the interim, states should make public large random samples of items used on multiple-choice tests of subject-matter knowledge. Opening the tests to public scrutiny would improve the quality of the debate about teacher licensing requirements. Any test that cannot withstand this debate should be eliminated from the process of determining who can teach in the nation's schools.

A VARIETY OF TRAINING PROGRAMS

There are several reasons to encourage diversity among training programs. In addition to the arguments mentioned above (that required curricula reduce incentives for excellence and hamper innovation), no single training strategy is best for all prospective teachers. This is particularly true as the average age of new entrants increases.[14] A growing proportion of potential teachers have done work after college in which they may have learned some of the skills needed for effective teaching. The mother who has raised several children and run a variety of volunteer programs for children has probably acquired some important skills for managing groups of children. The army sergeant who has spent several years as an instructor in an electronics school may have learned many of the skills involved in helping students learn mathematics. It is undoubtedly true that both of these potential teachers have a great deal to learn before they can teach effectively. But what they need to learn may differ, and the type of program that may be most effective in providing them with the needed skills may differ as well.

PERFORMANCE-BASED LICENSING

A system of performance-based licensing coupled with the development of a variety of alternative training options creates two sets of desirable incentives. First, programs can no longer rely on captive audiences; at the same time, the constraints on the design of teacher training programs are eliminated. Individuals and organizations with good ideas about how to train teachers can develop programs and try to attract students. Groups interested in designing training programs might include not only education faculty at colleges and universities but also private organizations and teachers in public and private schools.

The second desirable incentive is that individuals interested in public school teaching would search for ways to acquire the skills needed to pass the performance assessment. In their search they would ask about program costs and about the percentage of graduates of particular training programs who obtained licenses. The applicants' questions and consequent program choices should help successful, cost-effective programs to thrive, while providing a signal that weak programs need to be improved or eliminated.

Performance assessments for teacher licensure are not a quick fix for improving teachers.

Using performance assessments to license teachers has real potential for improving the quality of teachers in the nation's schools. But this approach is not a quick fix. It is far from easy to develop high-quality performance assessments and to implement systems of licensure based on them. Meeting these challenges will require large investments, a sustained research effort, and considerable experimentation.

STRATEGIES FOR ALTERNATIVE ASSESSMENT

In recent years, a number of research groups have proposed alternative strategies for assessing teachers' skills. To illustrate the range of possibilities – and the difficult tradeoffs in design – I will describe three strategies and compare their strengths and limitations.[15]

1. *The RAND strategy: task simulations.* Researchers at the RAND Corporation are developing paper-and-pencil assessments of teaching skills for the state of California. The RAND group is designing simulation problems that can be used to assess candidates' skills in four areas: instruction, planning, evaluation and assessment, and classroom management. Each candidate may be asked to respond to several simulated situations in a four- to six-hour period (note that these tasks are very different from completing multiple-choice tests).

Each problem includes a rich set of information about the teaching context in which it is set. For example, candidates for licensure in English may be asked to take a set of resource materials and plan a sequence of lessons that meets particular curricular goals for a class of students with particular backgrounds and skills. They may then be asked to evaluate a set of essays written by students in another class. Background materials include information about the students and the purposes of the assignment. Candidates may be asked to "1) make constructive comments on each paper to assist the students in revising their papers, 2) indicate the common problem(s) exhibited by the set of papers as a group, and 3) describe briefly what should be done to correct the common problem(s) in forthcoming lessons and/or homework assignments."[16]

2. *The ETS strategy: classroom observation.* The Educational Testing Service (ETS) is redesigning the NTE tests. ETS plans to rely primarily on classroom observations for measuring a teacher's performance.[17] Trained observers will focus their evaluations on four content areas: planning for instruction, implementation of instruction, classroom management, and evaluating students' progress. Of particular concern will be the extent to which teachers adapt their behaviors to fit their particular classroom situations, as defined by four variables: students' individual differences, their cultural backgrounds, their developmental levels, and the subject matter being taught.[18] ETS recommends that each candidate be observed several times.

ETS will not administer these performance assessments; it will provide technical assistance to states in training observers, in developing scoring strategies, and in setting minimum performance standards. Post-observation interviews and written questions may supplement the observations. The central assumption underlying the ETS strategy is that trained evaluators' observations of a teacher working with students provide the most valid and reliable means of assessing teaching skills.

3. *The Collins and Frederiksen strategy: a focus on teacher/student interactions.* Cognitive scientists Allan Collins and John Frederiksen propose a strategy for assessing teaching skills that is similar to the ETS approach in that it focuses

on observing teachers at work with students. What is particularly interesting about their assessment strategy is that it focuses on both the teacher and the students and on the interactions between them. Collins and Frederiksen argue that, in a classroom where effective teaching is taking place, students talk and reflect on what they do, articulate theories, and frame questions. Students help one another and engage in collaborative problem solving. Everyone is involved – weaker students as well as stronger students, girls as well as boys.[19] Important aspects of effective teaching, as these researchers envision it, are listening carefully and setting up activities that allow students to learn from one another. This approach is sometimes said to view the teacher as "coach." Collins and Frederiksen believe that trained assessors can judge teaching competency reliably by watching a teacher at work with students or, even better, by watching a videotape of a teacher and students at work.

A COMPARISON OF ALTERNATIVE ASSESSMENT STRATEGIES

A major strength of Collins and Frederiksen's approach and of the ETS approach is that they involve observation of teachers working with students – the fundamental mission teachers carry out every day. Basing licensing decisions on an assessment of how well applicants can do the work they will be hired to do has great appeal.

A tension that Collins and Frederiksen and the ETS research group face concerns the model of effective teaching that underlies the design of their assessments. Both groups want their assessments to drive practice in desirable directions, and both are aware that this can happen only if the assessments are based on an explicit model of effective teaching. At the same time, both groups acknowledge that effective teachers adapt their behaviors to classroom situations. Thus the challenge is to design assessment instruments that rest on explicit models of effective teaching but are sufficiently flexible to recognize that competent teaching can assume quite different forms in different classroom situations. It is too early to judge whether assessment procedures can be devised that manage this tension productively.

A related problem with assessment approaches that focus on observing teachers at work is that a teacher's evaluation may depend critically on the personalities and backgrounds of the students being taught. These factors will vary among classrooms and schools. Consequently, the "difficulty" of the examination will vary among candidates for licensure.[20]

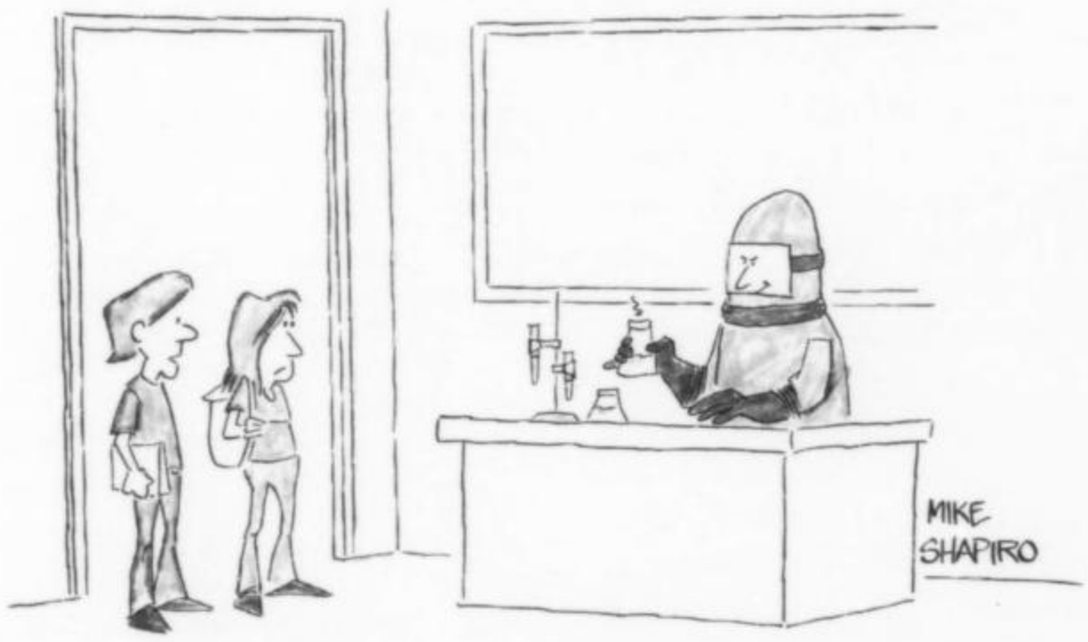
The connection between the difficulty of the teaching examination and a teacher's student clientele is particularly troublesome in light of evidence that black teachers are much more likely to work in urban districts serving high percentages of children from poor families than are white teachers.[21] Since these children are more likely to come to school hungry and with significant skill deficits than are middle-class suburban children, teachers working with children from poor families face particularly difficult challenges. Basing licensure on the extent to which teachers can motivate their students to learn in such circumstances may result in a higher rate of denial of licenses to black candidates than to white ones. It may be extremely difficult to assess whether differing student failure rates stem from differences in the students, from differences in other aspects of the teaching context, or from differences in the applicants' teaching skills.

A strength of the constructed-response assessments proposed by the RAND Corporation is that every applicant for a teaching license in a particular field will complete the same simulated tasks. This may make it easier for the state to argue for the fairness of a RAND-style licensing examination than for the fairness of the ETS and Collins-Frederiksen approaches.[22]

But some analysts object that the RAND approach puts too heavy an emphasis on analytic skills that are only indirectly related to teaching practice and that are much more characteristic of upper-middle-class white culture than of black culture. If that is indeed the case, then the RAND approach may discriminate against black teachers even more than a classroom-based assessment approach.[23] A related question is whether applicants could master the skills needed to do well on the pencil-and-paper assessments and still fail as teachers because of an inability to work with students. Finally, any licensing examination based on applicants' constructed responses to simulated problems creates incentives for training institutions to teach only the skills needed to do well on the simulated problems and to neglect other skills that may affect teaching competence but cannot be measured reliably on constructed-response tests.

At this stage, there is not enough evidence to evaluate the relative strengths and limitations of the alternative approaches discussed above. But these three approaches have common elements that should be part of any licensing examination.

First, applicants should be provided with detailed information on the nature of the assessment and on what constitutes high-quality performance. The RAND group proposes that the tasks used in previous administrations of the licensing



"I'm not sure what Mr. Ziegler has got planned for class today, but, quite frankly, I'm worried."

examination be made available to applicants along with copies of responses that were judged to be of high quality. Collins and Frederiksen propose that videotapes of exemplary teaching performances in each subject field be made available to applicants. ETS proposes to provide training materials that will guide beginning teachers' efforts to prepare for the performance assessment.

Second, any assessment must have "systemic validity": that is, the skills measured on the assessment must appear to contribute to effective teaching. A consequence of the evident tie to teaching is that preparing for the licensing examination will help the candidate to be a better teacher.[24] This is a critical property for any test or assessment used for licensing, because applicants will devote valuable time to preparing for it.

A third common element is that all of the research groups involved many classroom teachers in the design and review of the assessment strategies. Not only does this approach contribute to the quality of the assessments – since teachers can judge whether the assessment criteria are consonant with their experiences of what works with students – but it also helps build a constituency for performance-based licensing.

REFORMING LICENSING TO IMPROVE TEACHING

Much remains to be learned about how to design and administer performance-based assessments. But a long-term plan of basing licensing on well-conceived, carefully administered assessments of teaching performance has great promise as part of a strategy for staffing the schools with skilled teachers.[25]

In conclusion, I return to my basic theme and put it in perspective. Raising standards is important, but increasing the number of preservice courses that aspiring teachers must take to obtain a teaching license does not accomplish this objective. Neither does raising the minimum scores that applicants must achieve on multiple-choice tests such as the current version of the NTE. The attraction of policy changes of this nature is that they do not require the expensive research and development effort that creating a system of performance-based licensing entails. But these easy-to-implement, low-cost strategies have no potential for improving the quality of teachers in our schools. In contrast, a carefully crafted system of performance-based licensing has great potential for doing so.

Performance-based licensing should not be the only element of a strategy for staffing our schools with skilled teachers. Raising the standards for entry to the teaching profession will improve the teaching force only if talented college graduates with many occupational alternatives find teaching attractive. To make it so requires improvements in salaries and working conditions. This point is, in one sense, obvious. But it is too often forgotten in policy discussions about the importance of "raising standards."

Issues concerning teacher licensing and teacher compensation are particularly critical today because such a large number of new teachers will be hired over the next 15 years. If teaching remains a low-status, relatively low-paid profession, the country has no chance of meeting the goals for improving American education that the President and the nation's governors recently formulated. But if public policies are put in place that attract skilled teachers to the nation's schools, the benefits will be evident for many years to come.

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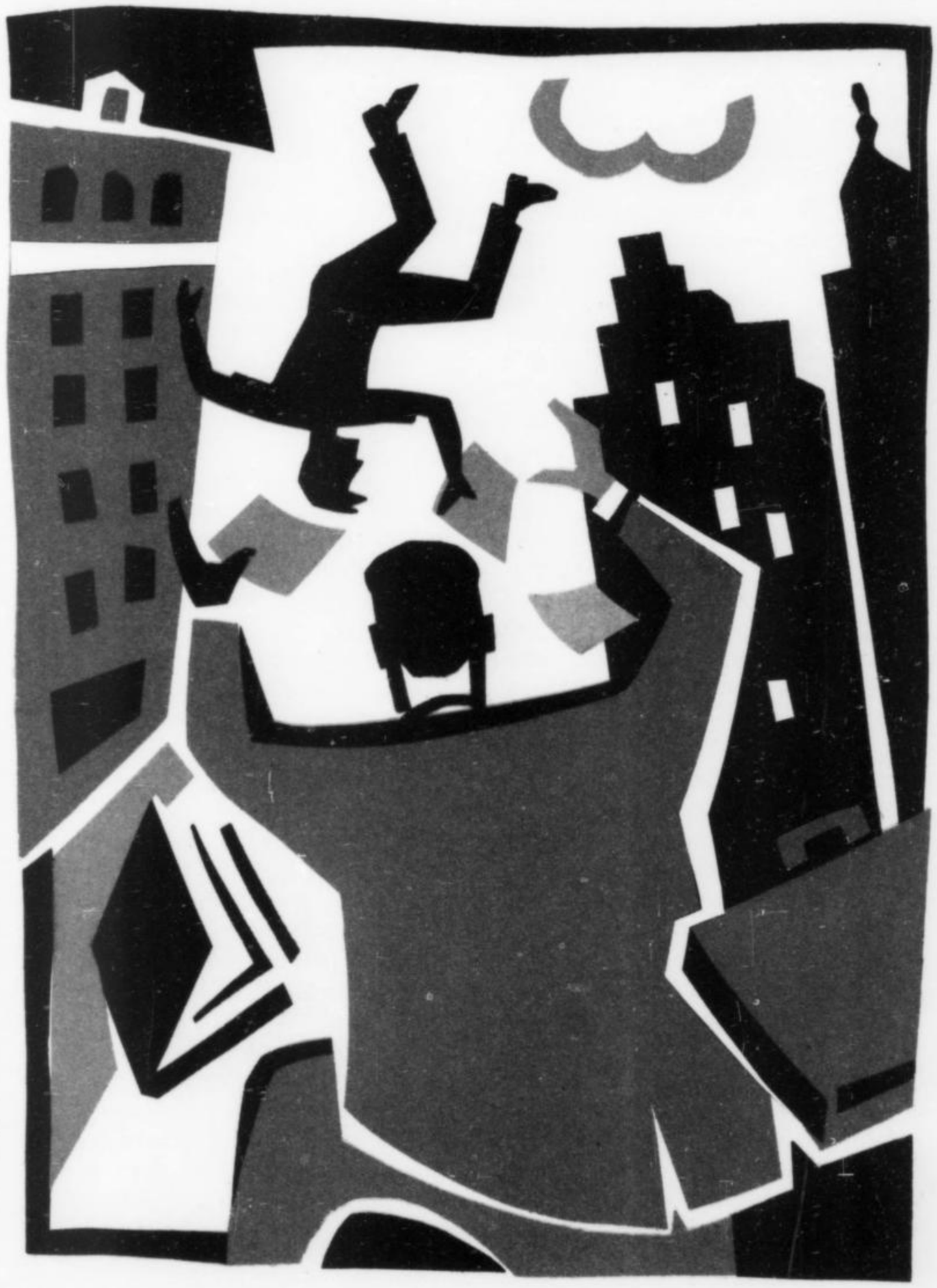
1. Historically, the term *certification* has been used to designate the credential that individuals must obtain to teach in the public schools of a state. But the plan of the National Board for Professional Teaching Standards – to offer "board certification" to experienced teachers who meet particular standards – has given an alternative definition to the term. To avoid confusion, I will speak of teacher *licensing* when referring to the state-specified requirements that an individual must satisfy in order to teach in a public school.
2. For a description of traditional state requirements for teacher licensure, see Arthur E. Wise and Linda Darling-Hammond, *Licensing Teachers: Design for a Teaching Profession* (Santa Monica, Calif.: RAND Corporation, 1987), pp. 12-14.
3. Lawrence M. Rudner and Thomas E. Eissenberg, *State Testing of Teachers: The 1989 Report* (Washington, D.C.: American Institutes for Research, December 1989).
4. See Richard J. Murnane et al., *Who Will Teach? Policies That Matter* (Cambridge, Mass.: Harvard University Press, 1991), Chs. 2 and 3, for a discussion of the role salaries play in determining who staffs the nation's schools.
5. See Richard J. Murnane and Barbara R. Phillips, "Learning by Doing, Vintage, and Selection: Three Pieces of the Puzzle Relating Teaching Experience and Teaching Performance," *Economics of Education Review*, vol. 2, 1981, pp. 453-65, for evidence that teachers' effectiveness increases markedly during their first three years in the classroom.
6. G. Pritchie Smith, *The Effects of Competency Testing on the Supply of Minority Teachers* (Jacksonville, Fla.: National Education Association and the Council of Chief State School Officers, December 1987).
7. Walter Haney, George Madaus, and Amelia Kreitzer, "Charms Talismanic: Testing Teachers for the Improvement of American Education," *Review of Research in Education*, vol. 14, 1987, p. 199.
8. Rudner and Eissenberg, op. cit.
9. See Wise and Darling-Hammond, p. 22.
10. Joan C. Baratz, *Black Participation in the Teacher Pool* (New York: Carnegie Forum on Education and the Economy, January 1986), pp. 29-31.
11. Lee Shulman, "Knowledge and Teaching: Foundations of the New Reform," *Harvard Educational Review*, February 1987, p. 15.
12. As I explain later in this article, the Educational Testing Service is in the process of revising the NTE.
13. Jerome Pine, "Validity of Science Assessments," in George Hein, ed., *The Assessment of Hands-On Elementary School Programs* (Grand Forks, N.D.: Center for Teaching and Learning, University of North Dakota, August 1990), pp. 83-94. Pine's analysis was conducted as part of the work of the National Research Council's committee on improving indicators of the quality of precollege math and science education. For a description of the committee's findings, see Richard J. Murnane and Senta Raizen, *Improving Indicators of the Quality of Science and Mathematics Education in Grades K-12* (Washington, D.C.: National Academy Press, 1988).
14. See Murnane et al., Chs. 2 and 3.
15. The three strategies by no means exhaust the types of approaches to performance assessment. For a thoughtful approach to assessing the skills of laboratory science teachers, see Patricia Wheeler and Janelle Page, *Development of a Science Laboratory Assessment for New Teachers, Grades K-12: California New Teacher Project, Vol. I, Final Report* (Mountain View, Calif.: RMC Research Corporation, 29 June 1990).
16. Stephen Klein et al., "Developing a Prototype Licensing Examination for Secondary School English Teachers," proposal submitted to the State of California Commission on Teacher Credentialing, n.d., p. 2.
17. *Working Papers Toward a New Generation of Teacher Assessments* (Princeton, N.J.: Educational Testing Service, January 1990).
18. See Carol Anne Dwyer and Ana Maria Villegas, *Assessing the Beginning Teacher: Guiding Conceptions* (Princeton, N.J.: Educational Testing Service, July 1990).
19. Allan Collins and John Frederiksen, *Five Traits of Good Teaching: Learning, Thinking, Listening, Involving, Helping* (Cambridge, Mass.: Bolt Baranek and Newman Inc., 1989).
20. See Klein et al., p. 8.
21. See Murnane et al., Ch. 5.
22. For other problems with performance assessments, see Klein et al., p. 8.
23. Allan Collins, personal communication, October 1989.
24. For a discussion of "systemic validity," see John R. Frederiksen and Allan Collins, "A Systems Approach to Educational Testing," *Educational Researcher*, December 1979, pp. 27-32.
25. See Murnane et al., Ch. 7, for a description of Connecticut's system of performance assessments. K

Dropout Prevention in New York City: A Second Chance

Project Achieve, New York City's new dropout-prevention program, seems likely to benefit from the experiences of that city's earlier Dropout Prevention Initiative, which fell far short of improving graduation prospects for at-risk students. Mr. Grannis provides the details.

By Joseph C. Grannis



BETWEEN the school years of 1985-86 and 1989-90, the New York City Board of Education implemented a set of dropout prevention programs that, sadly, fell far short of improving the graduation prospects of students identified as "at risk" in the city's junior and senior high schools. The most expensive and intensively studied of these programs was the Dropout Prevention Initiative (DPI). In three years of operation (1985-86 through 1987-88) in 13 high schools and 29 feeder middle schools, the DPI targeted 24,077 students for special assistance at a cost of more than $40 million in supplementary funds.

An evaluation of the DPI conducted by Teachers College of Columbia University has now established that more than

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Illustration by Marti Shohet

GUIDANCE DID NOT OCCUR OFTEN ENOUGH TO REFLECT A SUSTAINED PROGRAM FOR MOST DPI STUDENTS.

50% of the high school students who were served by the program in 1985-86 had dropped out by September 1988.[1] Only 15% of the students in the program had completed a regular high school diploma or had passed the General Education Development (GED) test by September 1988; at most, only another 10% might have completed a diploma in the three years since. Attendance trends for high school students who entered the DPI in later years or who were in middle school when they were first targeted by the DPI suggest that they are likely to drop out at rates comparable to those of the first group of high school students studied.

These results were anticipated in earlier reports on the evaluation, which observed that the organization and culture of the schools constrained the program for students in many ways. The very language of "services" to "at-risk" students fed the perception that the students themselves – not the schools – were the source of the dropout problem. Moreover, these early reports pointed to a number of changes that future dropout prevention efforts would want to incorporate.

In May 1990 the New York City Board of Education released a summary of the evaluation findings and simultaneously announced Project Achieve, a new dropout prevention program.[2] Project Achieve strives to go far beyond the DPI to integrate academic and social supports for students. Accomplishing its objectives, however, will require radical measures to permit the crossing of boundaries that separated the various groups of participants in the DPI. Staff members at all levels must learn to use student information as feedback to help adjust the program and attain its goals. Advisory systems and "houses" or minischools will help maintain a focus on students' needs and outcomes.

THE PROBLEMS OF THE DPI

It is not profitable to recite the litany of problems that beset the DPI from its inception. Those details are available in the reports I mentioned above. However, because Project Achieve is in many respects an attempt to build on lessons learned from the DPI, a brief summary of the DPI's services, successes, and failures is warranted.

Each year an average of 150 students enrolled in each of the 29 middle schools that participated in the DPI; an average of 425 students a year enrolled in each of the 13 DPI high schools. These students met one criterion or more for program eligibility, such as poor attendance or a low rate of passing academic courses. Nearly half of the students were overage for their grades, including one-sixth or more who were at least two years overage.

The number of students targeted for the DPI in the schools was substantially smaller than the number who met the program's eligibility criteria, especially in the high schools. Some of the remaining students may have been receiving services from other programs, particularly bilingual education programs. But many others were not served by any special program, though it was hoped that the DPI would have a positive "trickle-down" effect on them.

There is no denying that the students had great needs. Still, focusing just on the students' risk factors diverts attention from the schools' role in the problem. Interestingly, the incidence of overage students rises sharply in grade 7, which is where, until 1990, New York City had a policy of retaining students to try to improve their achievement test scores – and it rises again in grades 9 and 10, the levels at which students enter high school from intermediate schools (grades 6, 7, and 8) and junior high schools (grades 7, 8, and 9). A lack of coordination between elementary school and middle school and again between middle school and high school seems a likely explanation for the pileup of overage students in these grades.

An analysis of the records kept by Pupil Personnel Committees (PPCs) in the middle schools sheds more light on the problem. The PPC in each school includes administrators, outreach and guidance staff, and teachers. In 677 recorded discussions of students' cases in 20 schools during the 1987-88 school year, virtually never did the staff attribute students' absences or their inadequate academic performance to difficulties arising from teachers, curriculum, or some other feature of the school itself. Yet the targeted students attended school for the greatest percentage of days in September and then for decreasing percentages through most of the subsequent months, suggesting that more than problems at home accounted for their attendance patterns.

The DPI was meant to combine seven components of service to students: project facilitation, attendance outreach, guidance and counseling, health services, middle school/high school linkage, alternative educational programs, and increased school security in most of the high schools. At first glance, the package seemed comprehensive. And a phenomenal number of services to students were recorded: tens of thousands every year in the middle schools, where the most precise records were kept.

However, analysis of the records showed that the average student did not receive the full complement of services that the program called for. School "linkage" activities, either to smooth middle school students' transition to high schools or to help transferring students adjust to new high schools, were recorded less than once a year for the average targeted student, as were health services mediated by the DPI.

As for "facilitation" efforts, only a minority of program coordinators – namely, those who held full-time positions – had substantial personal contact with students. The average student did receive a large number of attendance outreach contacts by mail, by telephone, by autodialer, or through home visits (attempted but not necessarily completed). Likewise, guidance and counseling were recorded

at relatively high levels, and the majority of program participants in both the middle schools and the high schools were involved in "alternative education." However, guidance still did not occur often enough to reflect a sustained program for most students, and alternative education, at least in the middle schools, was more a supplement than a true alternative to the regular curriculum.

For some high school students, blocked programming, minischools, and afternoon schools were used in an attempt to create more comprehensive alternatives. But these programs usually could not be isolated from the larger school environment and its various negative effects on students.

All these findings figured into recommendations for a more thoroughgoing restructuring of students' school experience. Initial attempts in the DPI to accomplish this objective, however, ran into serious obstacles.

SOME ATTEMPTED SOLUTIONS

Alternative education. Alternative education in the middle schools during the first two years of the DPI had two components: 1) career education, which was scheduled once or twice a week as a pull-out program; and 2) before-school or after-school academic, enrichment, and recreational activities. The career education component featured "enterprise activities," designed to give students hands-on, productive work experience through such assignments as making and selling T-shirts, logo buttons, and the like; patrolling the halls; making set designs for school assemblies; engaging in peer tutoring; and taking part in a variety of other activities. The before- and after-school activities included tutoring and homework help, but relatively few students participated in these.

"Why do we have to go to school every day? Why can't we just go on a need-to-know basis?"

School staff members who were not affiliated with the DPI questioned the value of the nonacademic alternative education activities. During the second year, an attempt was made to implement a more academic approach to career education, but this effort failed to involve students or staff. Therefore, evaluators recommended that the schools be given more control over the planning of the program, and a major revision of alternative education was planned in late 1986-87 for implementation in 1987-88. The schools were allowed to choose one of four models for alternative education: a minischool model, a block program model, a remedial/enrichment teacher model, or a district-developed model (a wild-card category that allowed for still other possibilities). The minischool and block program models particularly encouraged a more comprehensive approach to dropout prevention than had hitherto been possible.

Planning, selection of students, assignment of teaching responsibilities, and recruiting for new positions proceeded in the spring and early summer of 1987. In midsummer, however, the New York State Assembly stipulated that the federal Pupil Compensatory Education Need (PCEN) funds that the school board intended to use for alternative education could be used only for remedial education and only for students who scored below the 50th percentile on a standardized test. Thus many of the plans that schools had already made had to be scrapped, and staffing and student programs had to be revised.

Further unintended consequences followed. More than half (55%) of the targeted middle school students ended up being programmed for remediation (PCEN) or enrichment (paid for out of city funds for students who had relatively high test scores). These students were then "clustered" in groups separate from their regular classes. However, the clusters disproportionately included the students who were in attendance in the early fall when the classes were being formed.

At the end of the program year, the rates of attendance and of courses passed for the students who were clustered were found to be higher than those of the students who were not included in the clusters. But those outcomes were clearly related to the selection procedures. The students in the clusters were also found to have received more services – even more attendance outreach services – than the 45% of targeted students who remained scattered in regular classes.

Articulation. Articulation between the middle school and the high school DPI programs was very weak. Trips to high schools or visits by high school staff members and students to middle schools were the principal activities, but they often did not even begin until the spring of each year because the budgets for the high school portion of the costs were not approved until midyear. For those middle-schoolers who did get to take part in a linkage activity, shadowing a student in high school for part of a day was reported to have been a particularly valuable experience. However, coordination between the middle school and the high school programs was so poor that fewer than 10% of the students targeted in their terminal year in middle school in any given year were targeted for DPI services in a high school in the following year. The hard fact is that the middle schools and the high schools in New York City were – and continue to be – administered by separate units within the city school system.

Orientation. Once students were in the high schools, orientation was still deemed important. At one high school a very well-planned program for the week before school – late August and early September – had a daily schedule of breakfast, assembly, activities, lunch, and sports. Upperclass students served as mentors in the program. At the time of planning for the orientation, about 500 students had been identified and were mailed announcements; of these 500 letters, about 150 were returned as having the wrong address. Orientation staff members reported that the actual attendance totaled about 80; this represents a small fraction of the 600 new DPI students who eventually registered at the school.

Subschools. A plan to create houses or subschools within each high school was just in the early stages of implementation in the final year of the DPI. At that point, houses seemed to be increasing the success of incoming DPI students in a couple of high schools, while in others the houses were replicating departmental and tracking structures or involved only limited associations between staff members and students.

Services to students with limited proficiency in English. During the last year of the DPI (1987-88), Teachers College was able to analyze the distribution of services to students classified according to their proficiency in English. Three categories of proficiency were identified: limited English proficiency, marginal English proficiency, and proficiency in English.

In the middle schools, the degree of proficiency in English made a difference in every area of service recorded – letters, telephone calls, home visits, individual and group guidance sessions, and so on. The analysis revealed that students who were proficient in English systematically received more services than those whose English proficiency was marginal or limited. This pattern held both for the DPI students who were clustered for academic remediation or enrichment and for those who were just scattered in regular classes.

Involvement of community-based organizations. Perhaps the boldest innovation of the DPI was the extensive involvement of community-based organizations (CBOs) in many aspects of the schools' work. Including fringe benefits, CBO costs accounted for about 30% of the middle school expenditures and about 50% of the high school expenditures during the three years of the DPI.

Five CBOs initially contracted to provide services in 14 of the 29 DPI middle schools. Territorial issues figured in the termination of the contract of one CBO after one year, but the remaining four CBOs worked in 11 schools throughout the duration of the DPI. Members of the CBO staffs were responsible for activities in all the program components, though overall they tended to be more involved with counseling and less involved in alternative education than DPI staff members employed by the school system.

The CBOs had a site coordinator in each CBO school, while a program facilitator appointed by the board of education was present in all 29 DPI schools. The roles of the facilitator and the CBO site supervisor overlapped to a degree, yet each was answerable to a different organization. Principals in some schools fostered collaboration between the supervisor and the facilitator, while in other schools principals tended to back only the facilitator or to neglect the DPI almost entirely.

The finding that targeted middle school students who were clustered in remediation or enrichment classes received more services than students who were not clustered applied just as strongly in the CBO schools as in the non-CBO schools, suggesting that CBO staff members had accommodated to school behavior patterns. Differences in student outcomes between CBO and non-CBO middle schools were quite small in all three years of the DPI and could generally be explained by initial differences in student characteristics. Yet expenditures per middle school pupil were considerably higher in the CBO schools than in the non-CBO schools.

Despite the board's initial intention to compare non-CBO and CBO models of dropout prevention in the high schools, all 13 DPI high schools included at least one CBO – and some as many as four. Community-based organizations were associated with a case management approach to the distribution of services, while the use of school staff was associated with a systemic approach. Even more than in the middle schools, the CBOs in the high schools emphasized counseling. However, one CBO that was involved in fully half of the high schools, Federated Employment Guidance Services, also worked with the schools to develop a GED program and a career education and job-training program for regular students.

The systemic approach calculated the funding a school would receive on the basis of the number of students identified as at risk, but then it allowed the school to use the funds to add guidance staff or attendance outreach staff, to reduce class size, to create minischools or enrichment classes, or to strengthen the general school environment in some other way. Originally, this approach was seen as simply an alternative strategy for distributing services in the high schools, but the idea broadened into an interest in general systemic reform of the schools.

In both 1986-87 and 1987-88, high school students who were served by a combination of school and CBO staff tended to have slightly better attendance and a slightly higher rate of courses passed than students who were served by school staff alone or by CBO staff alone. The three schools with the strongest overall gains in student attendance and/or courses passed all used Federated Employment Guidance Services; however, this same CBO was also involved in several schools in which students had substantial losses in attendance or in courses passed. The effectiveness of the CBOs, as of virtually all DPI units, varied as a function of the students they were serving, of the school context in which they operated, and of their own organization.

One particularly powerful CBO contribution to the DPI was a peer-mediated project in conflict resolution, conducted by Victims Service Agency. Known as Project SMART, the program trained students to mediate conflicts between other students. Deans had to yield some of their territory to students, and the evaluation staff observed that students took

"I kept my ears open like you told me, and everything leaked out."

their new responsibility seriously. The number of suspensions based on "aggressive acts against students" was significantly reduced, especially during the first year that SMART was implemented in a given school. Social learning in this project appeared to be substantially more positive than what could be picked up from the not-so-hidden curriculum of conflict and antagonism that was familiar to many DPI students. School security staff members were often perceived to be adding to the problem of conflict between students by arbitrarily ignoring the behaviors of some and confronting others. Project SMART introduced an alternative for students and staff members in the DPI schools.

Other program innovations in high schools. The high school DPI spawned a number of other innovations that succeeded in important ways in breaking the schools' conventional molds. The PM School, one of the principal inventions of the DPI, originated in the high school that went farthest in trying to implement a systemic model.

PM School students voluntarily attended one or two late-afternoon classes in order to make up courses or to gain credits toward early graduation. They selected their courses in face-to-face registration with the teachers, a feature that gave them the opportunity to find out directly about a teacher and a class before signing up. The classes observed by evaluators exhibited a lively, hands-on style of teaching that encouraged participation. However, the average rates of attendance and of courses passed for 1987-88 PM School students were considerably higher during the year before they enrolled in the program than the corresponding rates for targeted students not participating in the PM School. Overall, students in the PM School were decidedly less at risk than the remaining targeted students. Thus the question arises, How can such an opportunity be made more attractive to the students who need it most?

Another innovation at the high school level was a jobs program that provided part-time jobs for students, with minimum wages subsidized by the DPI. Job developers in the high schools identified employers who would create and supervise the jobs, which generally required that students work 15 hours a week. As in the PM School, students in the jobs program tended to have rates of attendance and of courses passed that were higher than those of targeted students not in the program. When this factor was controlled for in regression analysis, however, participation in the jobs program still had positive effects on attendance and courses passed.

But even the jobs program was not enough to meet student needs. Participants in 1987-88 passed just 53% of their courses during the program year, a far lower proportion than would allow the average student to complete high school in a reasonable span of time. The jobs program illustrates concretely the more general observation that academic and social supports were not well-coordinated in the DPI. Only half of the students in the jobs program received counseling, few were involved in alternative education, and virtually none received tutoring. The students in the jobs program were doing better on the whole than other students in the DPI, but they still needed a fuller and more integrated package of academic and social supports to enable them to obtain a high school diploma.

An on-site GED program yielded more hopeful outcomes. Although less than 7% of the students enrolled in the DPI between 1985-86 and 1987-88 passed the GED examination, fully one-quarter of those who passed were enrolled in the one high school in the DPI that had a state-approved GED program on the school premises. Intensive courses taught by school staff members prepared the students for exams in reading, writing, social studies, mathematics, and science. Other high schools in New York City are now developing on-site GED programs, but the issue is politically sensitive.

OUTCOMES

Middle school. For each year of the DPI, the evaluation compared targeted students' attendance rates and rates of passing courses with the same students' rates in the previous year, when most of them were not yet enrolled in the program. Unhappily, no progress in arresting middle school students' attendance declines was demonstrated between the first and the third years of the DPI. The attendance rates for targeted students in middle schools in 1985-86 were 77% for the prior year and 73% for the program year. The attendance rates for targeted students in 1986-87 declined only slightly, but the attendance rates for middle school students in 1987-88 reverted to the first year's pattern. And in both 1986-87 and 1987-88, attendance changes were similar for comparison samples of middle school students who were eligible for services but not targeted in the DPI.

In all three program years, the targeted students in the middle schools improved the average proportion of courses passed over the previous year. Thus it appears that the program arrested a decline in the number of courses passed that might otherwise have been expected. Still, the resultant rate of passing courses in each program year – slightly above 70% – was substantially below what would be required if these middle school students were to have a good chance of finishing high school.

High school. The high school students targeted in 1985-86 had a prior year's attendance rate of 72%, which declined to 63% in the program year. Those targeted in 1986-87 declined in attendance from 71% to 62%, and those targeted in 1987-88 declined from 69% to 64%. The attendance loss was thus somewhat lower in the third year of the program than in its first two years. However, the resultant attendance rates were similar in all three years and put the average student at substantial risk of becoming a dropout.

The rate at which high school students targeted in 1985-86 passed courses went from 44% in the prior year (when a small fraction of them were still in middle school) to 35% in the program year. The corresponding figures for students targeted in 1986-87 were 48% and 41%; for those targeted in 1987-88, the figures were 47% and 43%. The decline in the rate of passing courses was thus slightly less in the second and third years of the program than in the first year. However, the resultant rate of passing courses was much lower than necessary if the student were to have a reasonable chance of obtaining a high school diploma.

The similarity of the program outcomes from one year to another indicates the persistence of underlying behavior patterns that contribute to these outcomes. What must change is not just the management system but the very culture of the schools.

PROJECT ACHIEVE

The results of the evaluation were conveyed to the New York City Board of Education in the school year following each year of the DPI. Some program modifications were undertaken as a consequence of the feedback from the first two years' evaluations. For the most part, however, administrators dismissed the negative findings of the first two years regarding attendance rates and courses passed, holding that it would take three or more years for the interventions to produce substantial results. This stance ensured greater continuity than had been possible in earlier programs with shorter fuses. On the other hand, it also led to underestimating the importance of the evaluation results. Only when the board of education's own evaluations of a parallel program in a different set of schools began to replicate the Teachers College findings and when not just one but two incoming chancellors – first, Richard Green, and then Joseph Fernandez – turned to the evaluation results to get a picture of the system they were inheriting, were the outcomes of the DPI taken seriously.

The question that arises now is, How should early feedback on Project Achieve, the new program, enter into the board's ongoing policy decisions? Simply stated, our answer is that information generated in the course of implementing or developing a program must be used to make regular midcourse corrections to bring the program closer to achieving its objectives. Without continuous feedback on program operations and outcomes, three, five, or even 10 years can pass while the program comes no nearer to achieving its goals.

Many recommendations from the evaluation of the DPI are reflected in the guidelines for Project Achieve. Dropout prevention in the high schools is to become a schoolwide agenda. Changes in instruction and in the quality of school and classroom experiences are as important as the delivery of supplementary support services. Moreover, Project Achieve is to be integrated with other initiatives to support school improvement, namely: the state department's Excellence and Accountability Program; the Chapter 1 Schoolwide Project Initiative; a school-based management/shared-decision-making initiative; and a restructured-schools initiative. A revision of the New York City middle school program – also announced in May 1989 – is similarly articulated with other new initiatives; it places new emphasis on involving parents and on increasing flexibility for schools to design programs that best suit their students' needs and the schools' resources.

Project Achieve aims to organize all ninth- and 10th-grade students into houses, to integrate support staff and academic personnel, and to achieve maximum continuity of house personnel throughout a student's high school career. This last element illustrates how far-reaching the effort intends to be.

A study of the high school house system, carried out by the Public Education Association and Bank Street College of Education in 1988-89, found that houses with strong designs outperformed weak ones on measures that included students' relationships with peers, teachers, and support staff; extracurricular participation; sense of community; academic performance; and teachers' knowledge of students' all-around performance.[3] However, that study found (as did the Teachers College evaluation of the DPI) that negative factors in the larger physical and social environments of the schools dominated the students' experience. The researchers concluded that staff resistance and inadequate funding hampered the implementation of strong house systems. A key feature of Project Achieve is an incentive system through which schools that include a greater proportion of their students in houses and take stronger measures to integrate faculty members into the houses will receive higher levels of funding.

Project Achieve explicitly commits the board of education and the schools to regular appraisals of how the program is performing and how any midcourse modifications are working. At the high school level, school and external teams worked on an initial needs assessment and goal setting in the spring of 1990. These same teams will carry out periodic reviews. Monitoring of the middle school programs at the school, district, and central office levels will also focus more closely on how effective the programs are in meeting their goals.

The board of education has now contracted with the United Way to administer all the involvement of community-based organizations at all levels in Project Achieve. In 1990-91 more than $12 million in contracts has been funneled through the United Way to support the activities of 48 community-based organizations in 80 schools. This is a stunning development, and some observers say that it amounts to creating a rival administrative structure outside the board itself. How the United Way can use its experience in monitoring charities to hold local organizations accountable for student outcomes is a critical matter that United Way executives themselves are pondering at this time. Perhaps the most effective role that the United Way can play is to facilitate and monitor the data-gathering activities of the community-based organizations and to help them use that information to improve the services in each school.

OBSERVATIONS AND RECOMMENDATIONS

The chancellor's proclamation of a set of minimum performance objectives for dropout prevention was an important feature of the DPI. In all three years, the objectives included a minimum of 50% of the targeted students increasing their attendance over the prior year, a minimum of 50% passing at least one more subject in the current program year, and a minimum of 50% earning enough credits to be promoted to the next highest grade at the end of the school year. Individual schools strove to meet these objectives, and some succeeded. That the DPI as a whole failed to meet the objectives comes as no surprise, particularly in the first and second years. But that there was no formal process for confronting outcomes and for modifying the program and its goals in light of feedback was a serious failing.

To improve students' attendance and achievement and to reduce the incidence of dropping out, it is necessary that *these goals themselves* govern the process of school-based planning. The evaluation has translated this commonsense advice into recommendations that a dropout prevention program have both short- and long-term objectives.

The short-term goals need to be both feasible and challenging, and the process of establishing even these goals will re-

STUDENT EXPERIENCE AND STUDENT OUTCOMES MUST BE KEPT IN THE FOREGROUND OF ALL RESTRUCTURING PLANS.

quire experimentation in the schools. To accomplish this, the schools need information systems that can maintain profiles of students and programs. These information systems need to be developed in each school or to be built on an existing base. User-friendly computer programs need to be developed that will give each school a capacity to generate its own data to answer its own questions and that will – at the same time – allow data to be merged at district, city, and state levels. These recommendations, too, have been incorporated into Project Achieve. But their implementation in the schools will require both a tremendous material investment and a sea change in the way schools and community organizations use data.

At the same time that major steps are being taken to manage technical information, there must be an adult who is in touch with each student and to whom others can refer for communication with and about the student. Only personal contact can convey to students the high expectations and the caring that are the top and bottom lines of dropout prevention. Houses, subschools or minischools, and advisory and mentoring systems can facilitate this process, provided that they do not isolate and track students at risk.

Data from the Teachers College evaluation show that services fell most conspicuously short of program expectations in areas that required crossing organizational boundaries: health, which needed coordination between the board of education and the health department; and school linkage, which required collaboration between the middle schools and the high schools, at both the central office and the district levels. Formal and informal boundaries also had to be crossed in encouraging parent participation, in offering services to students with limited proficiency in English, in fostering collaboration between schools and community organizations, and even in coordinating activities between discrete units within the schools themselves. We must pay profound attention to improving communication and increasing collaborative action across formal and informal organizational and cultural boundaries.

The most effective dropout prevention programs will be built around a comprehensive restructuring of the entire school experience. Before the current initiatives began, most of the intermediate and junior high schools in New York City bore little resemblance – in organization, curriculum, or social climate – to what the term *middle schools* stands for in educational discussions today. In the high schools, the GED has so far been a more efficient way than the conventional route for students at grave risk to earn a high school credential. For all students who wish to pursue these options, the schools should combine flexibly scheduled, experience-based courses and courses that prepare students for GED exams with part-time employment programs and appropriate academic and social supports.

Certain of the evaluation's recommendations have called for major increases in the schools' resources through alliances with employers in both the private and the public sectors. For example, part-time employment and mentoring programs need to be greatly expanded, and they will depend on collaboration. Moreover, the ratio of adults to children and youths in the city's classrooms is far too low and needs to be altered by restructuring the school experience.

The use of older students – even students who are themselves at risk of dropping out – as mentors and tutors for younger students has been found to improve the school performance of both the givers and the receivers of help. And the widespread implementation of such programs would change the age equation of the schools. The success of peer mediation for conflict resolution in the schools argues for giving more responsibility for the learning environment to the students themselves.

Current thinking about dropout prevention converges on students' engagement in their education as the immediate aim that should govern interventions of all kinds.[4] Attendance, involvement in classes, participation in cocurricular activities, career exploration, and health maintenance are all critical aspects of students' engagement. Several substudies of the Teachers College evaluation concluded that higher levels of both student and staff engagement were associated with mutual respect, shared control, and overlapping activity involving administrators, teachers, support staff, and students. What staff, parents, and others participating in the system experience themselves is bound to be congruent with what students experience.

Student experience and student outcomes must be kept in the foreground of all restructuring schemes. This is the stated intent of the new reforms in the New York City school system. And it is the obvious starting point for assessing how these reforms are doing in the coming years.

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1. The Teachers College evaluation of the DPI is contained in a series of reports deposited with the ERIC Clearinghouse on Urban Education. In addition to me, the authors of these reports include Carolyn Riehl, Thomas Bailey, Selina Bendock, Luisa Contreras, Robert Crain, Kiveli Filmeridis, Robert Futterman, Carol Gayle, Joseph Gerics, Judith Goldwater, Kenneth Jewell, Bruce A. Jones, Young-sil Kang, Nava Lerer, Aaron Pallas, Sanna Randolph, Michele Reich, David Rindskopf, Carolyn Springer, Diana Stewart, Susan Sullivan, Maria Torres-Guzman, Miriam Westheimer, and Denise Willis. I am deeply indebted to all these individuals for their contributions.

2. *Dropout Prevention Initiatives FY 1986 to 1990: Lessons from the Research* (New York: Division of Strategic Planning/Research and Development, New York City Board of Education, May 1990); *Project Achieve!: A School Improvement Program for At-Risk Students* (New York: High School Memorandum No. 137/137A, Division of High Schools, New York City Board of Education, May 1990); and *Guidelines for 1990-91 Attendance Improvement Dropout Prevention Programs in the Community School Districts, Citywide Special Education Programs, and in Community School Districts with Students Living in Temporary Housing or Moving to Permanent Housing* (New York: Special Circular No. 46, Office of the Chancellor, New York City Board of Education, May 1990).

3. Diana Oxley and Joan G. McCabe, *Restructuring Neighborhood High Schools: The House Plan Solution* (New York: Public Education Association, 1990).

4. Jeremy Finn, "Withdrawing from School," *Review of Educational Research*, Summer 1989, pp. 117-42; and Gary G. Wehlage et al., *Reducing the Risk: Schools as Communities of Support* (Philadelphia: Falmer Press, 1989). K

Confusion Effusion: A Rejoinder to Wiggins

In this rejoinder to Grant Wiggins on the matter of performance assessment, Mr. Cizek suggests that true reform of American education will undoubtedly be evidenced by something more substantial than pocket folders bulging with student work.

By Gregory J. Cizek

NO, GRANT WIGGINS, I'd prefer not to have my salary tied to a secure proxy test imposed on me by my employer. I'd much rather have it tied to an index of euphoria about performance assessment. The euphoria grows despite a number of troubling issues that I (and others) have raised but that continue to be ignored or insufficiently addressed by proponents of an increased reliance on performance assessment.

In his rebuttal to my article on performance assessment, which appeared in the May 1991 *Kappan*, Wiggins seems to put forth more confusion than resolution.[1] In this rejoinder, I respond to his criticisms and suggest that it would be useful for all concerned to examine more carefully the following areas of controversy.

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Illustration by Mario Noche

MEASUREMENT-DRIVEN INSTRUCTION

Almost without exception, proponents of performance assessment bemoan the purported hegemony of multiple-choice examinations. With remarkable speed, the rhetoric has progressed from Wiggins' contention that multiple-choice testing "may have caused a palpable decrease in the quality of education"[2] to Monty Neill's statement of "fact" that "organizing schooling around multiple-choice tests has been convincingly shown to do great damage to curriculum and instruction."[3] Frequently invoked are images of teacher-automatons mechanically force-feeding their students only that content found on mandated tests. The mere mention of alignment between curricular objectives and assessment specifications is enough to incite the enthusiasts to flail about en masse.

Given this seeming unanimity of opinion about the destruction wreaked by multiple-choice examinations, it is surprising to see the proponents of performance assessment strenuously arguing the other side of the coin, as well. For example, while the complaint persists that multiple-choice examinations are too closely aligned with the curriculum, Wiggins also faults the tests because they "cannot possibly align with all of the instructional aims of a given school or district." Wiggins goes further: "One-shot, end-of-year testing that yields only norm-referenced data *can have no direct impact on teaching and learning*" (emphasis added).[4]

So which way is it? How are concerned educators to decide on the truth of the matter in the face of the obviously contradictory claims? If Wiggins really wants a test that matches all our educational objectives, a much greater degree of curricular and instructional uniformity will need to be enforced. For accountability or comparison purposes, that suggests a move toward a standardized – possibly national – curriculum. But are we convinced that a match between a nascent national curriculum and some mother-of-all-performance-assessments is what we really want? Judging by the reactions of many scholars in the area of education policy to the current calls for expansion of the National Assessment of Educational Progress (NAEP), there is clearly a lack of consensus regarding the wisdom of that proposal. And, assuredly, the goals that Wiggins advocates – replacing norm-referenced tests with performance assessments for purposes of accountability and liberating school-level personnel to affect the design of assessment – are at odds.

And what about "teaching to the test" as the worst corruption of measurement-driven instruction? Does Wiggins really think that the practice will disappear if more performance assessments are implemented? Would coaching, teaching to the test, and the "Lake Wobegon" effect become mere memories? Probably not.

In his rebuttal, Wiggins points proudly to what works in performance assessment and mentions several examples, including performance assessments for pilots, writing assessments, and the New York Regents Examinations. However, these assessments suffer from the same problems that Wiggins and others incorrectly assert emanate only from paper-and-pencil tests. For example, a recent investigation of testing procedures for pilots uncovered serious flaws in the performance-based system. Evidently, because the in-flight, practical portion of the pilot's examination is administered on a one-to-one basis, examiners have an incentive to give easy, cursory tests that fail to identify incompetent pilots. The incentive arises because the higher the proportion of examinees an examiner passes, the more he or she is sought out by other examinees, which generates more income. One examiner has apparently even awarded licenses without testing candidates in the air.[5]

In the area of essay testing, George Madaus reports a revealing complaint from the head of an English department regarding the Georgia Regents Testing Program:

> Because we are now devoting our best efforts to getting the largest number of students past the essay exam . . . , we are teaching to the exam. . . . Because the Regents Test is primarily designed to establish a minimal level of literacy, our teaching to this test, which its importance forces us to do, tends to make the minimal acceptable competency the goal of our institution, a circumstance that guarantees mediocrity.[6]

Finally, Robert Linn, Eva Baker, and Stephen Dunbar relate the case of a geometry teacher from New York who had been recognized for excellence in teaching, based on his students' performance on the Regents geometry examination. However, it was learned that the students' outstanding performance was achieved largely because they were encouraged to memorize the 12 proofs that were likely to appear on the examination.[7]

In citing these examples, I am *not* suggesting that Wiggins is wrong in concluding that traditional measures are susceptible to the corrupting influences he cites. However, I am suggesting that he and other proponents of performance assessment should remove their rose-colored glasses: the shortcomings they perceive in multiple-choice tests will surely crop up in performance assessments as well. It *is* wrong to promote the false notion that simply changing the form of the assessment will ensure better classroom instruction or make assessments immune to the corruption we wish to avoid. As Madaus has pointed out, just because performance assessments are labeled "authentic" doesn't mean that they aren't "just as corruptible as multiple-choice tests."[8]

VALIDITY

I take no issue with Wiggins' hope that greater face validity will spawn greater enthusiasm for testing on the part of students and teachers. However, this is clearly an example of misdirected emphasis. Can he be seriously suggesting that face validity is of *primary* importance? Apparently so. Despite Wiggins' protestations, "a third-grade reading test that bores the student and angers the teacher by its dopey questions"[9] *can* be valid. (To my knowledge there is no strong evidence that relates his hypothetical "perceived dopiness quotient" to what a test can adequately assess.) In any case, a repeated finding concerning attitudes toward testing does not reveal the ennui and hostility that Wiggins asserts. For example, the May 1981 issue of the *Kappan* contains the reports of several researchers who concluded that many educators actually perceive testing as rather innocuous.[10]

Where Wiggins and I disagree on the validity issue could not be clearer: he would apparently adopt face validity as a necessary and nearly sufficient condi-

tion for receipt of his psychometric imprimatur; I see it as a nice accouterment, never to be purchased at the expense of any other form of validity that contributes to the accuracy of inferences made on the basis of test scores. And, while he invokes some new form of validity – "systemic validity"[11] – to validate the newfound enthusiasm for performance assessments, many of us in education are still not sure what "systemic validity" really is.[12] We could, of course, continue to invent more and more kinds of validity until everyone would have his or her own special conception of validity, and the term would lose all its meaning. Personally, I'll cling to the hope that the trend will abate with "instructional validity"[13] and that we will begin to concentrate more on ensuring and reporting on validity than on increasing its forms.

Two other concerns about validity separate me and Wiggins. First, I wish to reassure him that, having spent five years as an elementary teacher, I do care about students and teachers. However, I also care about school administrators, school boards, and school districts. It is the latter groups that will surely suffer under the face-validity emphasis that Wiggins promotes. Does he forget the tortuous court battles of the Seventies and Eighties in which school districts and state departments of education were forced to defend themselves – often unsuccessfully – against charges of inadequate evidence of validity in the teacher certification and student competency tests? (And many of those tests were developed according to much more stringent standards than those currently endorsed by advocates of performance assessment.) The face-valid performance assessments that might please Wiggins would undoubtedly fail to satisfy the courts.

Second, Wiggins' comments about "dopiness" are essentially content-validity concerns. He has apparently been seduced by the chorus of the antitesting faithful, chanting their litany of complaints: "Multiple-choice questions are trivial!" they say; "They are lower-order and simplistic!" they intone; and so on. Indeed, some poorly constructed multiple-choice tests are simplistic and fail to address higher-order skills. That is not to say that poorly constructed performance tests would not be the same. Nor does Wiggins note that many well-constructed multiple-choice tests *do* assess complex, higher-order skills. Has he never looked at a copy of the *Iowa Tests of Basic Skills* or the *Iowa Tests of Educational Development*,[14] to name just two? A quote from the historian Jeremy Jackson comes to mind: Wiggins seems "innocent of any careful appraisal of his conjectures in the light of the documents he purport[s] to criticize."[15]

IT IS RATHER DISCONCERTING TO HEAR RELIABILITY BEING DAMNED WITH SUCH FAINT PRAISE.

RELIABILITY

It is rather disconcerting to hear reliability being damned with such faint praise. Calling reliability "not the overwhelming problem that critics of performance assessment make it out to be," Wiggins advises us to be "vigilant about making sure it does not fall below a *tolerable* minimum."[16] That is surely the weakest admonition to adhere to rigorous testing standards that I've ever heard. And surprisingly, this comes from the same Grant Wiggins who has of late been banging the drum for higher, more rigorous standards in education generally.[17]

Wiggins is apparently pleased to settle for only cursory investigations of reliability, citing an NAEP report of interrater reliability of 90% or better on NAEP subject-area essay tests.[18] He ought to know better. No one disputes the possibility that human raters can be trained to agree on a score for a single sample of a student's work. Maybe some invertebrates could be similarly trained. However, the more crucial issue is the extent to which *broad sampling* of the student's work produces accurate estimates of a student's true ability. When looked at in *this* context, reliability is typically much lower. In a thorough analysis of performance-based assessments, Linn, Baker, and Dunbar restated the findings of much previous research:

> 1) experience with performance assessments in other contexts . . . suggest[s] that there is likely substantial variability due to task; and 2) the limited generalizability from task to task is consistent with research in learning and cognition . . . that emphasizes the situation and context specific nature of thinking.[19]

Although Wiggins might call such discrepant information "credible" and "rich,"[20] the overwhelming majority of those interested in fair and accurate measurement would call it by another name: error.

What I tried to point out in my article, and what Wiggins apparently missed, is that, for the new performance measures to be truly useful, they must be held to the same high standards we have come to demand of existing paper-and-pencil assessments. Wiggins' quote from the technical manual of the College Outcome Measures Project (COMP)[21] only illustrates my point. The fact that the publisher of the COMP assessments produced "summaries of technical studies that conclude that the [COMP] performance tests are both valid and reliable"[22] is a credit to the publisher and is *precisely what I am calling on all producers of performance assessments to provide*. And this is what consumers of performance assessments should demand before a new instrument is used for any important educational decision.

But it doesn't look as if this is currently the case. To borrow Wiggins' words, there *are* "naive, unvalidated assessment[s] from unknown vendor[s] trying to cash in on the latest trend"[23] out there. They're selling unproven instruments, hawking whizz-bang video how-to's, and biting off a big piece of the in-service training pie. All I'm asking for

is the educational equivalent of "truth in lending" so that consumers of these new instruments are made aware of the extent to which the instruments have – or have not – been critically examined for psychometric propriety.

REINVENTION

Wiggins objects to being "taken to task for reinventing the testing wheel." He also contends that I cannot "have it both ways, at one moment decrying the trendiness of [performance assessment] and at another reminding us [of its age]."[24] It is ironic that Wiggins claims I have begged the question concerning what new ideas are being put forth in current calls for more reliance on performance assessments. The clear implication of my article was that so far nothing terribly substantial has been provided by the enthusiasts – mostly we have gotten jargon-filled pronouncements. How can Wiggins, with a straight face, chastise me for not supplying some original justification for his movement?

And, by the way, one *can* have it both ways. To say that something is old but trendy is not at all contradictory. Perhaps Wiggins doesn't wear a paisley tie, but maybe he has noticed a few of the fashion-conscious folks in Rochester, New York, sporting knee-length shorts, horn-rimmed glasses, or fountain pens.

REFORMATION

There is surely one larger issue about which Wiggins and I are in agreement: the need for reform of the education system. However, it is revealing that the topic of assessment has brought to light so precisely the critical difference we have in *approach* to the problem of reform.

Wiggins (and others before him) have suffered from a simplistic, "univariate" view of education reform. He states: "We will not improve schools until local teachers and administrators have complete faith that the assessment system will adequately represent their students' . . . achievements."[25] Others of us see many complex and interrelated factors that work against the quick-fix reform of education using single-variable solutions. If "complete faith" is all it takes to reform education, then perhaps we were reformed decades ago when our faith was greater – and we just didn't realize it.

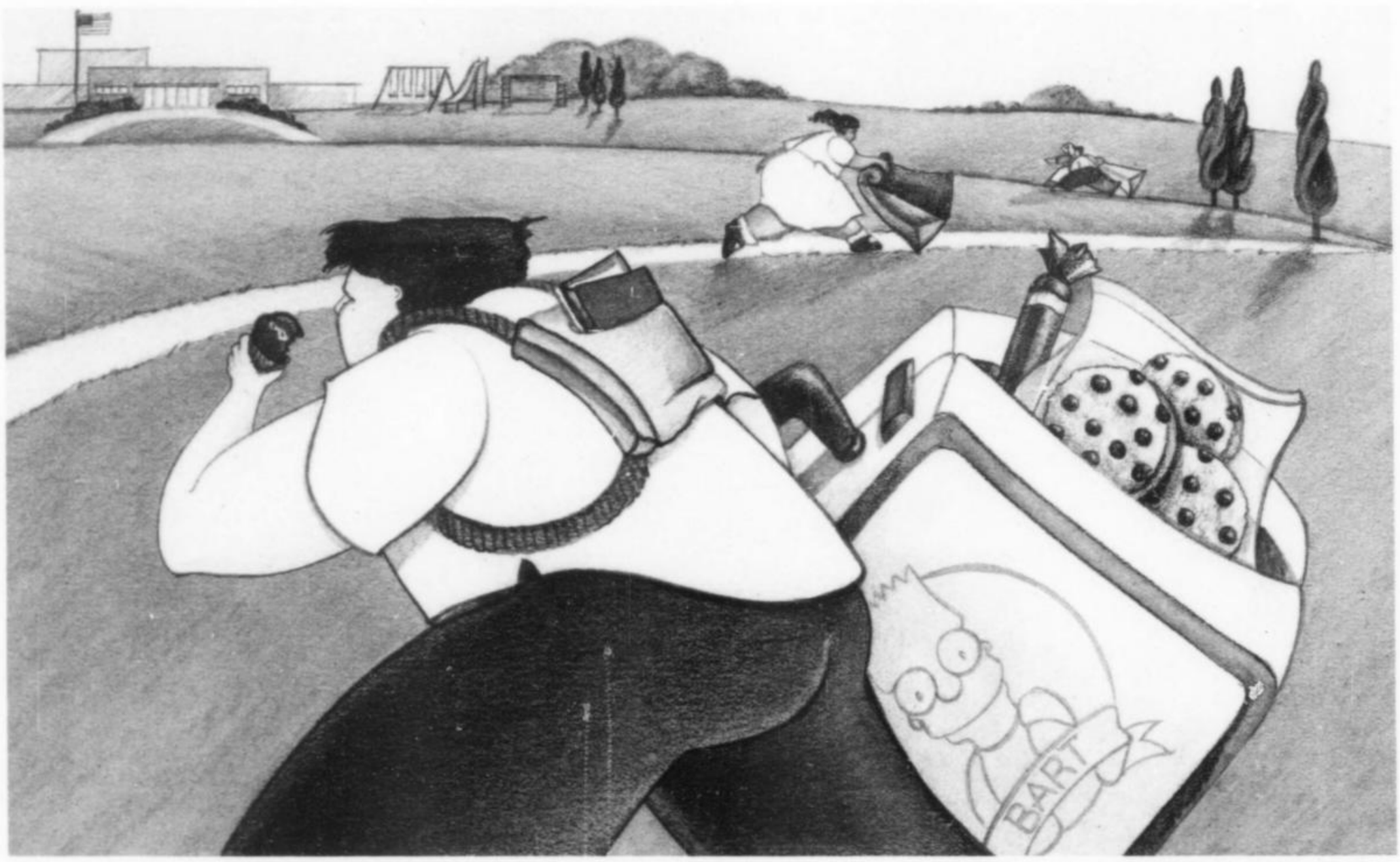
No, it's going to take more than faith. And it will take more than superficial fussing with the form of assessment tools we use. As a single variable in the complex process of education reform, performance assessment cannot possibly accomplish all that its enthusiasts have, sadly, led many to believe that it will. As Robert Travers has noted: "Amateur reformers in the field of education would probably drop most of their plans for the remodeling of public education if they had a better understanding of the failures of the past."[26]

WHAT MATTERS

As Wiggins correctly notes, a constructive debate is surely needed, but it must go beyond short-sighted fix-all fads. Some bold new plans proposing more comprehensive strategies for assessment reform[27] and far-reaching conceptualizations that address the complexity of school reform[28] have been advanced; others should be developed and tested. The true reform of American education – if that is what we are willing to work toward – will undoubtedly be evidenced by something more substantial than pocket folders bulging with student work. Performance assessment does have the potential to make a positive contribution to reform efforts by providing unique information about student ability that complements the kinds of data currently gathered. It should not be promoted as a replacement for other assessments or, worse, as *the* cure for what ails us.

1. See Gregory J. Cizek, "Innovation or Enervation? Performance Assessment in Perspective," *Phi Delta Kappan*, May 1991, pp. 695-99; and Grant Wiggins, "A Response to Cizek," *Phi Delta Kappan*, May 1991, pp. 700-703.
2. Grant Wiggins, "Reconsidering Standards and Assessment," *Education Week*, 24 January 1990, p. 36. Although Wiggins' causal assertion is nearly untenable, others have gone beyond credibility. For example, Martin Solomon has publicly wondered whether the "bland" 1988 Presidential campaign was "perhaps a byproduct of 30 years of a different [multiple-choice] system of testing in education" (*Education Week*, 30 January 1991, p. 34). Apparently, critics of multiple-choice testing can now attribute the occurrence of any undesirable phenomenon to the test!
3. Monty Neill, "Do We Need a National Achievement Exam?," *Education Week*, 24 April 1991, p. 36.
4. Wiggins, "A Response," p. 702.
5. "Systematic Flaws Found in Pilot Testing," *NOCA Professional Regulation News*, December 1990, p. 3.
6. George F. Madaus, "The Influence of Testing on the Curriculum," in Laurel N. Tanner, ed., *Critical Issues in Curriculum: 87th NSSE Yearbook* (Chicago: National Society for the Study of Education, University of Chicago Press, 1988), p. 96.
7. Robert L. Linn, Eva L. Baker, and Stephen B. Dunbar, "Complex Performance-Based Assessment: Expectations and Validation Criteria," *Educational Researcher*, in press.
8. George F. Madaus, quoted in Robert Rothman, "Researchers Say Emphasis on Testing Too Narrow, Could Set Back Reform," *Education Week*, 12 June 1991, p. 25.
9. Wiggins, "A Response," p. 702.
10. See, for example, the following articles in the May 1981 *Phi Delta Kappan*: Lee Sproull and David Zubrow, "Standardized Testing from the Administrative Perspective," pp. 628-31; Leslie Salmon-Cox, "Teachers and Standardized Achievement Tests: What's Really Happening?," pp. 631-34; and George F. Madaus, "Reactions to the 'Pittsburgh Papers,' " pp. 634-36.
11. Wiggins, "A Response," p. 702.
12. Obviously, just because a name for something is popularized doesn't mean that it exists. That belief, called *reification*, is described – ironically – in Steven J. Gould's criticism of intelligence testing, *The Mismeasure of Man* (New York: Norton, 1981).
13. *Debra P.* v. *Turlington*, 474 F. Supp. 244 (M.D. Fla., 1979).
14. Albert N. Hieronymous and Hiram D. Hoover, *Manual for School Administrators, Iowa Tests of Basic Skills, Forms G/H* (Chicago: Riverside, 1986); and Leonard S. Feldt, Robert A. Forsythe, and Stephanie D. Alnot, *Teacher, Administrator, and Counselor Manual, Iowa Tests of Educational Development, Forms X-8 and Y-8* (Chicago: Riverside, 1989).
15. Jeremy C. Jackson, *No Other Foundation: The Church Through Twenty Centuries* (Westchester, Ill.: Crossway Books, 1980), p. 223.
16. Wiggins, "A Response," p. 702.
17. See, for example, Wiggins, "Reconsidering Standards"; and Grant Wiggins, "Standards, Not Standardization: Evoking Quality Student Work," *Educational Leadership*, February 1991, pp. 18-25.
18. Wiggins, "A Response," p. 702.
19. Linn, Baker, and Dunbar, op. cit.
20. Wiggins, "A Response," p. 703.
21. Aubrey Forrest and Joe Steele, *Defining and Measuring General Education Knowledge and Skills* (Iowa City, Ia.: American College Testing, College Outcome Measures Project, Technical Report No. 1976-81, 1982).
22. Wiggins, "A Response," p. 701.
23. Ibid.
24. Ibid.
25. Ibid., p. 703.
26. Robert M. W. Travers, *An Introduction to Educational Research*, 2nd ed. (New York: Macmillan, 1964), p. 127.
27. See, for example, John R. Hills, "Apathy Concerning Grading and Testing," *Phi Delta Kappan*, March 1991, pp. 540-45; and Richard J. Stiggins, "Assessment Literacy," *Phi Delta Kappan*, March 1991, pp. 534-39.
28. John E. Chubb and Terry M. Moe, *Politics, Markets, and America's Schools* (Washington, D.C.: Brookings Institution, 1990). K

Crisis in Youth Fitness and Wellness



Current studies support the notion that children are less physically fit today than they were a decade or two ago. However, Mr. Vogel points out that physical education specialists, classroom teachers, administrators, parents, and business leaders – all working together – can change this situation.

By Paul R. Vogel

YOU HEAR about it on the news, you read about it in major publications, and medical organizations issue position statements about it: American children are fatter, less fit, and less healthy than they were 10 years ago. Credible research indicates that 15% to 25% of today's children are obese – that is, at least 30% overweight.[1] The American Association of Health, Physical Education, and Recreation concludes, on the basis of comparisons of the time it takes students to run a mile, that modern-day children are, on average, less fit than their counterparts of bygone years. Some studies of the prevalence of childhood coronary heart disease (CHD) claim that 40% of today's children already show early signs of CHD.[2]

Current studies all support the notion that children today are less physically fit, are more obese, and have less healthy cardiovascular systems than their peers of 10 to 20 years ago. The most comprehensive study to date was the two-part National Children and Youth Fitness Study (NCYFS), conducted and funded

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Illustration by Brenda Grannan

by the Office of Disease Prevention and Health Promotion of the U.S. Public Health Service. Part I of the study was completed in 1985 and Part II in 1987.[3] The NCYFS uncovered some alarming statistics: "Compared to their peers of the 1960s, present-day children, grades 1-4, have skin-fold measurements 2-4 mm greater. Adolescents, grades 5-12, have skin-fold measurements 2-3 mm greater."[4] The NCYFS calls these increases a statistically significant difference. Skinfold measurements are effective tools for determining obesity.[5] And body fatness is inversely related to aerobic power in children.[6] In other words, children with high skin-fold measurements have lower indexes of maximum oxygen use: fitness and fatness don't mix.

The problem with obesity is not one-dimensional. It doesn't just affect fitness; it's also a major health problem, a bona fide disease.[7] Dr. William Dietz and Steven Gortmaker have conducted investigations that suggest that one out of four school-aged children is overweight and that "the prevalence of obesity has increased 54%" among the 6- to 11-year-old population for the years 1963 to 1980.[8] Dr. Andrew Thomas, chairman of the Sports Medicine Committee of the American Academy of Pediatrics in Minnesota, states: "The 'Fitness Decade' passed children up. As a result American children are fatter than at any time in our nation's history."[9]

Obesity increases the risk of a host of life-threatening diseases, including CHD, stroke, atherosclerosis, diabetes, and orthopedic disorders. Research abounds on the prevalence of atherosclerosis and CHD in elementary school-aged children.[10] Thomas Gilliam and his colleagues found that 62% of 47 youngsters studied had at least one CHD risk factor and that 21% had three or more factors.[11] The American Academy of Pediatrics and the American Health Foundation claimed that half of the children from families who do *not* have a history of coronary heart disease *do have* elevated cholesterol levels.[12] Add to these statistics the finding that, more often than not, obese children end up as obese adults, and the picture begins to look even more frightening.

The President's Council on Physical Fitness reports that, "in 1980, 43% of 6- to 17-year-olds passed the Presidential Physical Fitness Test; today, only 32% of American children can pass."[13] It's clear that we do have a crisis on our hands, but why? Investigations are starting to link excessive television viewing with obesity. The NCYFS discovered that young people, on average, watch three hours of television on weekdays and 3½ hours on Saturdays and Sundays. Dietz and Gortmaker showed that each hourly increment of televiewing by adolescents was associated with a 2% increase in the prevalence of obesity.[14]

Another contributing factor appears to be the eating patterns of American children. Some evidence of this "diet influence" comes, interestingly enough, from Japan, where the popularity of American food is increasing. According to statistics released by the Japanese health ministry, Western-style health problems are also increasing in Japan. Approximately 10% of Japanese teenagers are overweight. That is double the figure of 20 years ago.[15]

Meanwhile, research is starting to indicate that not only is what our children eat important, but also when they eat it. Kenneth Resnicow, director of the School Health Research Division of the American Health Foundation, reports that an investigation of 1,088 children in New York and Georgia found that children who started their day with breakfast not only had lower cholesterol levels than their breakfast-skipping peers, but also were significantly less overweight. Resnicow says that children who eat breakfast tend to snack on lower-fat, higher-fiber foods.[16]

The NCYFS discovered that, while virtually all children (97%) were enrolled in physical education classes, only 36% attended them daily. This finding suggests that recess and free play are being substituted for organized, professionally taught physical education classes. Studies monitoring volitional physical activity patterns during the school year, during recess, and over summer vacation all show that children seldom exercise long enough or frequently enough to get their heart rates up high enough to improve fitness levels or to receive any cardiovascular benefits.[17]

Finally, we adults have not been very good role models. While most adults run around in Nike or Reebok tennis shoes, the NCYFS found that only 10% of adults between the ages of 18 and 64 exercise with enough intensity and regularity to achieve any health or fitness benefits. Another nationwide fitness study, published in August 1989, showed that 59% of Americans are sedentary – that is, they get no regular exercise at all.[18] An independent survey that I conducted of sales representatives for a major chain of health clubs showed that 50% of newly enrolled members attend once and then never return. Should we expect our children to be any different?

The literature on youth fitness suggests two major points. First, if we do not intervene, the poor fitness and wellness of our youngsters will follow them into adulthood. Problems stemming from obesity and CHD among adults already sport a $100 billion price tag in the United States. What will the economic impact be if an additional 15% to 25% of our current young people grow into adulthood obese? Emmet Keeler of the RAND Corporation put it this way: "For each person who chooses an armchair lifestyle, society pays $1,900 annually."[19]

Second, the research shows that there are many fronts on which to attack this problem. School administrators and physical education specialists can introduce physical education curricula that are more health- and fitness-focused, especially in the secondary grades. More and more scientific research supports physical fitness as a key component of a healthy life. In addition, fitness can be an effective tool in the management of obesity, hypertension, diabetes mellitus, and CHD.[20]

FOR YEARS major corporations have understood that a fit and healthy employee is more productive, spends less time out sick, and contributes more to the "bottom line." The bottom line in education is learning and the development of the total individual. Educators and administrators must start to pursue the ancient goal of "a sound mind in a sound body." You can't have one without the other.

Research supports this relationship. How can we expect children to learn and develop to their full capacity if they are too weak to attend class, are sick, or are inattentive because they have major health problems arising from a lack of wellness or fitness? Physical education,

In times of budget crunches and deficits, physical education is often the first program to feel the ax.

like no other curriculum area, lends itself to a student's total development.

Physical education specialists are asked to turn out strong, fit, and healthy students, but they are expected to do so under conditions that no respectable reading or math teacher would tolerate. How many schools have math or reading programs that are taught twice a week for half an hour by a math or reading specialist and the remaining three days a week by a nonlicensed teacher? This may sound absurd, but it is just the situation in elementary physical education. Children are being taught by teachers who have perhaps had one undergraduate course in how to teach elementary physical education. In times of budget crunches and deficits, physical education is often the first program to feel the ax.

School administrators need to support physical education even when there are budget crises. They must become convinced of the need for full-time, five-day-a-week physical education programs, taught by licensed specialists for at least half an hour a day and supplied with high-quality equipment. That might seem like a lot to ask, but the need is supported by strong, credible research.

Physical education specialists need to create strong programs that focus not only on motor development but also on the lifelong fitness of children. Teachers must educate students to become more conscious of matters related to health and nutrition. Physical education specialists should not just supervise activities but should teach students to understand the hows and whys of aerobic fitness and good nutrition. Students should also be encouraged to participate in extracurricular programs such as after-school fitness or running clubs.

Parents must also be educated, so that they can guide their children to make more appropriate recreational and nutritional choices. Parents should be enthusiastic proponents of fitness and support their children's growth toward the goals of physical fitness and health as eagerly as they support their pursuit of academic goals. As their children's first teachers, parents should exercise *with* their children and push for strong health and physical education programs and departments in the schools.

Health educators need to keep abreast of the ever-changing world of nutrition. They need to know what current research says and how this information might affect the children they are responsible for educating.

Regular classroom teachers need to follow up on and support the goals and objectives of the physical education specialist. They need to view physical education not as recess or recreational time, but as a real subject area within the curriculum.

Wellness directors in private industry can offer inservice training that will teach employees nutritional and exercise strategies that are designed with their children's needs in mind. Many parents realize and want to address the wellness/fitness issues that are facing their children but don't know what to do – or even where to go for help.

Business leaders need to support programs and sponsor activities that will provide opportunities for young people to become healthier. For example, they might help physical educators with after-school programs or sponsor youth-oriented athletic competitions and educational activities.

Together, physical education specialists, classroom teachers, administrators, parents, and business leaders can make a difference. Instead of sending our future community, social, political, and business leaders into adulthood and the work force unfit, let's make them intellectually and physically ready to meet new challenges head on. Let's not allow them to become victims of stress, obesity, and the diseases associated with them.

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2. Thomas B. Gilliam et al., "Prevalence of Coronary Heart Disease in Active Children, 7-12 Years of Age," *Medicine and Science in Sports and Exercise*, vol. 14, 1982, pp. 21-25.
3. James G. Ross and Glen G. Gilbert, "The National Children and Youth Fitness Study, Part I: A Summary of Findings," *Journal of Health, Physical Education, Recreation and Dance*, vol. 56, 1985, pp. 45-50; and James G. Ross and Russell R. Pate, "The National Children and Youth Fitness Study, Part II: A Summary of Findings," *Journal of Health, Physical Education, Recreation and Dance*, vol. 58, 1987, pp. 51-56.
4. Ross and Gilbert, op. cit.
5. Michael I. Pollack and Donald H. Schmidt, "Measurement of Cardiorespiratory Fitness and Body Composition in the Clinical Setting," *Exercise in Sports and Medicine*, vol. 6, 1980, pp. 12-207.
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8. William H. Dietz and Steven C. Gortmaker, "Do We Fatten Our Children at the Television Set? Obesity and Television Viewing in Children and Adolescents," *Pediatrics*, vol. 75, 1985, pp. 807-12.
9. Andrew J. Thomas, "Comments on Youth Fitness," *St. Paul Pioneer Press Dispatch*, Fitness and Health Section, 1 January 1990.
10. See, for example, Kris Berg et al., "Developing an Elementary School CHD Prevention Program," *The Physician and Sportsmedicine*, vol. 11, 1983, pp. 99-105.
11. Gilliam et al., op. cit.
12. Thomas, op. cit.
13. Ibid.
14. Dietz and Gortmaker, op. cit.
15. Kenneth Resnicow, "Body and Mind Food," *Health Magazine*, vol. 22, 1990, p. 16.
16. Ibid.
17. Melbourne F. Hovell et al., "An Evaluation of Elementary Students' Voluntary Physical Activity During Recess," *Research Quarterly*, vol. 49, 1978, pp. 460-74; and Judith A. Seigel and Thomas G. Manfred, "Effect of a Ten-Month Fitness Program on Children," *The Physician and Sportsmedicine*, vol. 12, 1984, pp. 91-97.
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Anybody Who's Been Kept After Class As Much As This Deserves Some Extra Credit.

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Red Tape and School Improvement

BY LARRY HAYES

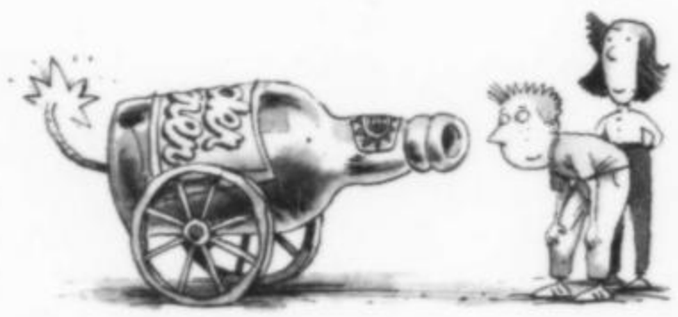
DO SCHOOLS do better when they're freed from state regulations? Not necessarily, according to a study by Susan Fuhrman of Rutgers University. She found that many schools that would qualify for deregulation aren't taking advantage of the exemptions. Moreover, she says that some schools that have gone through the steps necessary for deregulation haven't improved the quality of the education they offer. Unfortunately, the poorest schools – those which might benefit the most from deregulation – are likely candidates for state takeovers, the ultimate in regulation. However, there are too few such cases to make a valid assessment, Fuhrman concludes.

English First, Logic Last

We knew that the English First people didn't like bilingual education (which they regard as a way of allowing immigrants to get away with not learning English and still make it into the mainstream). But we didn't know that they'd get nasty about it. The newsletter of the Virginia-based group recently declared that the Washington, D.C., riots this spring were the direct result of the failure to teach English to Hispanics. English First refers to people who support bilingual education as "advocates of rewarding lawlessness."

When Tragedy Strikes

Tragedy can strike any school. And dealing with tragedy takes a lot of understanding. But take a look at the feature articles in the May/June 1991 issue of *School Administrator*. The articles are both sensitively done and helpful, offering compelling insights into how to handle such tragedies as the suicide of a student.



Teens and Drinking

The American Council for Drug Education has some sensible tips for parents to help them discourage their teenagers from drinking: do not allow unchaperoned parties; help the teens make up excuses for saying no to peer pressure; set clear rules in the home; and let other parents know when their children have been drinking. Curiously, the council doesn't include the best advice of all to parents: don't drink yourselves. Children whose parents don't drink aren't as likely to drink, either.

Head Start Still a Bargain

Head Start should be in for a big boost. Every school reformer, from President Bush on down, proclaims the value of this survivor from Lyndon Johnson's War on Poverty. But the most ambitious plan in the works is contained in the School Readiness Act of 1991, which would raise funding from its present $1.9 billion to $7.6 billion in the third year after the bill goes into effect. Given that Head Start is estimated to save the nation $4.75 in social costs for every $1 spent, that would add up to a $36 billion bonus for society.

Walking with Students

Walking magazine reports that more than 4,000 schools in 42 states have adopted walking programs. At Central Elementary School in Carrollton, Texas, for example, Roberta Poorman oversees a walking program for 700 children, kindergarten through fifth grade. The students walk with their teachers each day, and they learn as they walk. They count and then graph the numbers of steps they've taken. They collect leaves for science. They learn about the muscles in their legs. They write about the adventures they have on their walks. Everybody wins because almost every child can walk. And it's a lifelong fitness program – superior to the games and calisthenics that most adults abandon as soon as they're not required to go to gym class.

The Next Generation Of Citizens

The schools in Dade County, Florida, ought to get a special commendation from President Bush. In a voter registration drive, officials signed up 98% of students old enough to exercise the franchise. Surely, this record is better than that of any county election board in the country.

Meanwhile, Harvey Kaye, a University of Wisconsin political scientist, is also working to improve the political involvement of young people. He teaches his college students to become the next

LARRY HAYES is the editorial page editor for the Fort Wayne (Ind.) Journal-Gazette *and president of the Education Writers Association.*

Illustration by Jem Sullivan

And Congratulations To Those Who Walked Away With This Year's Honors...

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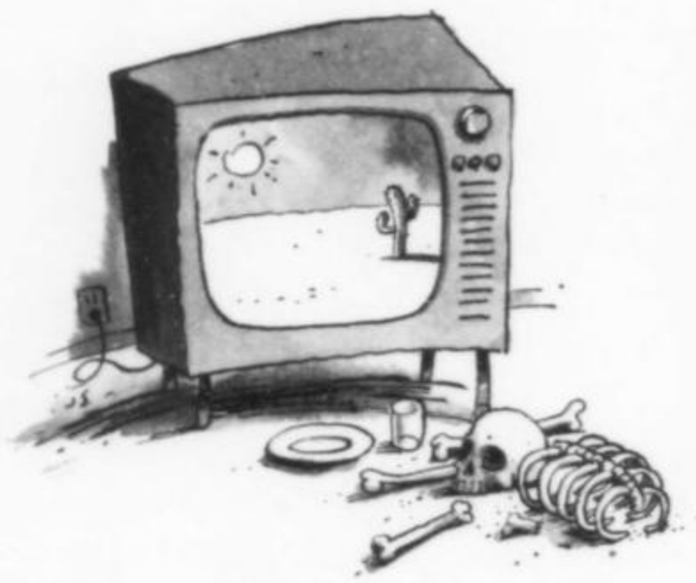
generation of public intellectuals. His classes are a kind of workshop in which students not only read and analyze political treatises, but also write their own responses for publication in editorials, articles, and columns.



TV Still a Wasteland?

Remember Newton Minnow? He was the chairman of the Federal Communications Commission who, 30 years ago, denounced television as a "vast wasteland." Columbia University held a conference this year to commemorate the speech and invited Minnow, who was up to his old carping.

"Television fails our children," he said, employing no memorable phrase at all. But he cited the work of Bob Keeshan (Captain Kangaroo) as one inspiring exception. Minnow argued that television *could* be nurturing children as it does in other countries. For older students, he mentioned Ken Burns' programs on the Civil War as evidence of what television *could* do for education. Minnow declared that students could learn more from those programs than from all their years of studying history in school. Sounds like historians aren't the only ones who engage in revisionism.

A Less Than Modest Proposal

Frances Schrag, a professor of education at the University of Wisconsin, has proposed a novel experiment. Rather than continue to try out education reforms by spending just a few dollars more than we usually do on each student, let's try spending, say, five times that figure. Then, Schrag argues, we'll learn whether the failure of any particular reform is really a failure to make the necessary investment.

GED on the Rise

The General Education Development test may be coming into its own. Last year there was a 12% increase in the number of people taking the test, from 682,728 in 1989 to 763,618 in 1990. Ohio, which began to offer the test free of charge, saw the biggest jump. What's more, the GED exam has gotten tougher. But it still means access to jobs and higher education for thousands of Americans.

Help Needed for Foster Children

Education Week rightly devoted two major articles to foster children and their school problems. There are now 360,000 school-age children in foster care – an 18% increase since 1986. These children move often, so they develop few close ties with schools and classmates. One of the most promising developments to help these children is Washington State's Homebuilders program. Some schools invite the Homebuilders' teams of professionals into the classrooms to act as consultants to the teachers of children who have come out of troubled homes.

Fed Spending Down in the 1980s

Federal spending on education dropped during the 1980s. The National Center for Education Statistics found that the feds now spend $50.5 billion for elementary, secondary, and postsecondary education – a 47% increase over 1980. When that figure is adjusted for inflation, however, the change is actually a 5% decline. As Harvard economic historian Robert Reich has demonstrated, aid to elementary and secondary education from business dropped during the same period. Somebody ought to have told the rest of us that you get better national defense and better health care by spending more money, but that's not the way you get better schools.

Free Speech on Campus?

Politically correct speech is the new boogieman on campus, except that a lot of students aren't aware that they're being menaced. According to higher education critics, such as best-selling author Dinesh D'Souza, leftist students, weak administrators, and professors who are refugees from the unscrubbed Sixties insist on conformity in language. The critics say that new campus speech codes, ostensibly written to stop students from using profanity and racial slurs to harass women and minorities, undermine free speech and free inquiry.

The *Chronicle of Higher Education* reports that the campuses are fighting back in the way that civilized people generally do – with more name-calling. The *Chronicle* notes that the Modern Language Association issued a statement accusing the critics of misrepresentation and false labeling. And there's more than a smidgen of that in D'Souza's work. But perhaps the best answer to D'Souza came in a quite balanced *New Yorker* review of his book, *Illiberal Education*. The reviewer said, "Like many people who write critically about the contemporary academy, D'Souza knows nothing about the history of the American university, and this makes it impossible for him to evaluate what he's observed."

On the subject of academic freedom, the American Association of University Professors lifted sanctions this year against three schools for violations of academic freedom. And, for the first time in 24 years, the AAUP issued no citations whatsoever for violations of academic freedom. K

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Inoculating with Science

BY GERALD W. BRACEY

EVERY NOW and then I hear people arguing over whether math or science is the worst-taught subject in elementary school. I would vote for math because virtually every teacher teaches math, while many teachers opt out of science instruction to a large extent. The teaching of both subjects could use much improvement.

One long-term examination of an attempt to improve science instruction has been conducted by Joseph Novak of Cornell University and Dismas Musonda of the University of Zambia. They report on a 12-year longitudinal study in the spring 1991 issue of the *American Educational Research Journal*.

Novak developed a series of audio tutorials for an elementary science program that he refers to as AT-ESP. Carrels were installed in classrooms, and children heard the lessons via cassette recorders that they could start, stop, and rewind as needed. In the years 1971-73, 28 of the best such lessons were administered in 11 elementary classrooms in grades 1 and 2. The lessons focused on developing two major concepts in a variety of ways: 1) that matter is particulate in nature and 2) that energy is needed to change things or is released when things change.

One group of students did not receive AT-ESP instruction. Since virtually no science instruction was offered in the elementary schools outside of AT-ESP, Novak referred to this group as the uninstructed group. As high school seniors, the instructed and uninstructed students had nearly identical Scholastic Aptitude Test scores, both verbal and mathematical.

The impact of the lessons was evaluated over the years through modified Piagetian interviews that focused on "specific changes in concepts and propositional meaning rather than generic changes in cognitive functioning" (the latter being the primary focus of Piaget's work). "Our practice was to design interviews that would probe students' thinking about objects or events they had observed and/or manipulated in the audio-tutorial lessons," Novak and Musonda write. "Following these questions were other questions dealing with similar phenomena but using novel materials."

Graduate students with a "sound grasp of science concepts" were trained to conduct the interviews. Videotapes of past interviews were used in training new interviewers over the years.

Cognitive psychologists have struggled for many years over how to represent the private knowledge that a person has about a topic or concept in some public way that is reliable and meaningful. Using recent ideas from constructivist epistemology and from David Ausubel's assimilative theory of cognitive learning, Novak and Musonda devised the notion of a concept map. A concept map shows the ideas a person has about a topic – valid and invalid – and how they relate or don't relate. It is a difficult subject to summarize in a paragraph, and I commend readers to the original text for a comprehensive explanation. For our purposes, it is enough to know that different people constructing concept maps from the same interview come up with "remarkably similar" maps and that these maps can be scored reliably.

After completing the AT-ESP program in the second grade, students were interviewed again in grades 7, 10, and 12. The uninstructed students were also interviewed. Students who had received AT-ESP instruction held significantly more valid concepts about science than did the uninstructed students. Moreover, there was a grade-by-instruction interaction indicating a cumulative advantage for the instructed students: while the number of invalid concepts decreased for all students as they got older, this decrease occurred more rapidly for the instructed group than for the uninstructed group. Write Novak and Musonda:

> The data suggest that primary grade children have much science concept learning capability that goes unexploited in schools. In our study, some children showed better understanding of the particulate nature of matter in grade two than was evidenced by some twelfth graders. This is likely to be true in other disciplines as well. . . . If only a relatively few hours of quality science instruction in grades one and two can have a discernible influence on science learning throughout the school years, at least in regard to the particulate nature of matter, it seems evident that much meaningful learning potential remains undeveloped in our school children.

GERALD W. BRACEY is a research psychologist and a policy analyst for the National Education Association, Washington, D.C.

Illustration by Jim Hull

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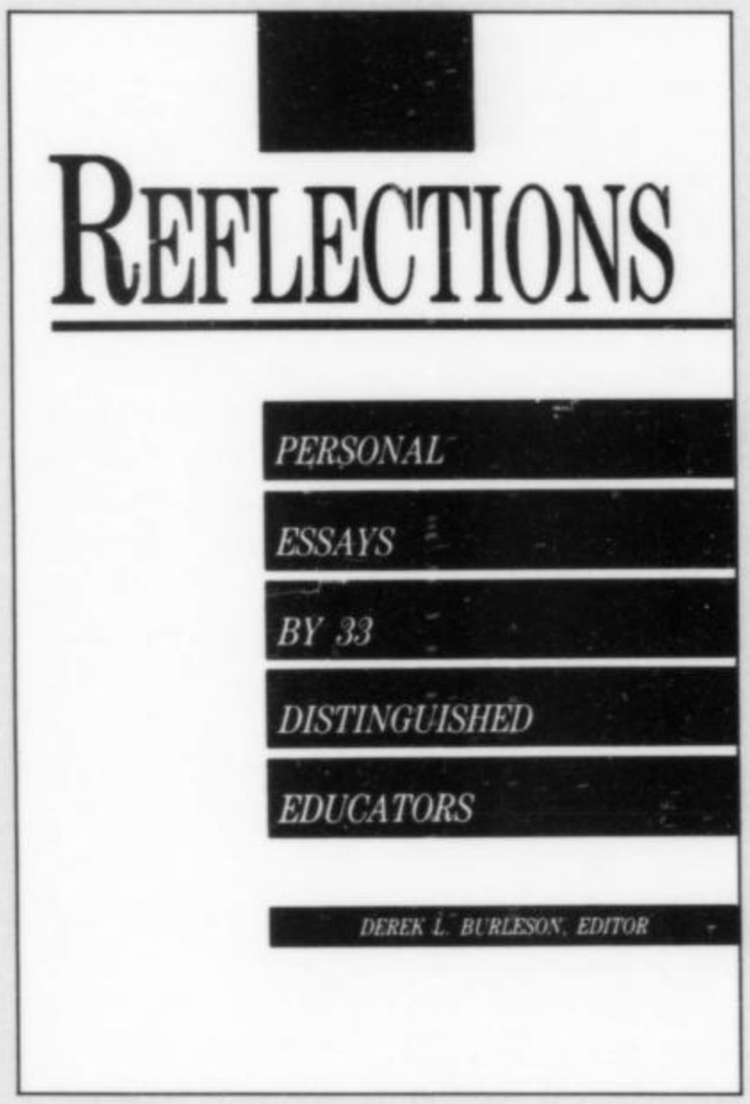

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While anniversaries are a time for celebration, they are also a time for reflection. To reflect on public education in America, Phi Delta Kappa invited 33 distinguished educators to contribute personal essays from the vantage point of their own careers. The 33 biographical essays serve as a historical review of public education in the latter half of the 20th century, with several of the authors playing central roles in that often turbulent history. They offer the reader much to ponder.

The distinguished contributors to this volume are: William M. Alexander, Ernest L. Boyer, John Brademas, Samuel M. Brownell, Jeanne S. Chall, David L. Clark, James S. Coleman, James P. Comer, Alonzo A. Crim, Larry Cuban, Jack A. Culbertson, Luvern L. Cunningham, Elliot W. Eisner, Stanley Elam, Jack Frymier, N. L. Gage, John I. Goodlad, Maxine Greene, Asa G. Hilliard III, Harold Howe II, Philip W. Jackson, Nancy Larrick, Edward J. Meade, Jr., Alice Miel, A. Harry Passow, Arliss L. Roaden, J. Galen Saylor, Harold G. Shane, Albert Shanker, Julian C. Stanley, Jr., Ralph W. Tyler, Carolyn Warner, and Arthur E. Wise.

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It is important to point out that the teachers were discouraged from discussing the lessons with the children. Novak and Musonda state that this is an attempt on their part to control for differences in teacher knowledge of and enthusiasm for science. "Ideally," write the authors, "AT-ESP lessons would be accompanied by extensive class discussions and class or individual project activities, but our purpose was to provide exposure to basic science concepts."

I wonder whether this comment is an afterthought. Earlier, Novak and Musonda had written, "Given the poor preparation of most elementary school teachers in science, we sought to develop an alternative instructional approach using audiotape to guide individual students through hands-on experiences with science materials illustrating basic science concepts." This comment seems to place the program squarely in line with the "teacher-proof" approaches popular in the Sixties and early Seventies. Overall, I don't think those approaches were successful, and they are certainly out of favor today.

In addition, I am struck not only by the fact that a brief treatment in grades 1 and 2 produces measurable outcomes in grade 12, but also by the fact that the outcomes were produced using a relatively primitive technology. One would think that the effects of presenting the same concepts through well-designed, computer-assisted videodisc instruction would be much more powerful. The operative phrase in that last sentence is *well-designed*. As they were developing the AT-ESP materials, Novak and Musonda explored using both photographs and line drawings as visual materials to accompany the tapes. They report that the photos contained *too much* information. What appears to be clever design to an adult might be cognitive overload for a child.

Tutoring in College

TODAY, people express concern over the dropout rates from college, as well as over those from high school. This is quite a change from my first convocation as a college student, when the dean of men at a state college proudly announced that 50% of us would not finish. Today's concern is deepest with respect to minority students. In the summer 1991 issue of the *Journal of School Psychology*, Daniel House and Victoria Wohlt of Northern Illinois University report on a tutoring project that tried to help "underprepared students" in the freshman year. House and Wohlt defined *underprepared* as coming from a large city, being a first-generation college student, and not having taken a college-preparatory curriculum.

To assist these students, juniors, seniors, and graduate students at Northern Illinois were trained in study skills, test-taking skills, communication skills, and ways to reduce math and test anxiety. They then served as tutors for the underprepared students. The freshmen had to request the tutoring.

At the end of their freshman year, neither the group of students tutored nor a group of similar nontutored students had been academically dismissed or were eligible for such dismissal. However, 71% of the tutored black students returned for their sophomore year, while only 55% of the nontutored black students did so. For Latino students, the comparable figures are 77% and 68%. The tutoring had no impact on Asian students, who tended to return either way: 83% of tutored students, 81% of nontutored students.

House and Wohlt acknowledge that, since the tutoring was voluntary, those who asked for it may have had greater motivation to succeed in the first place.

Culture and Giftedness

ONE EXPLANATION for the alleged superiority of the Japanese education system was put forth a few years back by then Prime Minister Nakasone. He said that we have the wrong kind of students. Americans are too ethnically diverse, and he singled out blacks as a burden on the system. Strongly rebuked for these remarks, he promptly issued an apology, which no one believed.

Still, it remains true, as Mary Frasier of the University of Georgia observes in the spring 1991 issue of the *Journal for the Education of the Gifted*, that many minority groups are underrepresented in programs for the gifted. Not only are few gifted minorities found by means of such traditional methods as tests, says Frasier, but attempts to develop other methods of identification to get around the limitations of tests have thus far failed as well. Checklists and rating scales designed to accommodate cultural diversity, alterations of traditional procedures, culture-specific identification systems, and programs designed to eliminate experiential and language gaps have not solved the problem.

Frasier contends that, "if we are to succeed in identifying gifted children from all cultures, we must resist the tendency to compare them to dominant culture standards." Some might question this conclusion and even find that it smacks of "political correctness." But Frasier goes on to propose a new method, the Frasier Talent Assessment Profile, which she hopes will identify gifted minority children "without eroding quality and without requiring excessive data collection or excessive expenditures of time."

Frasier's profile examines data about academic, creative, artistic, leadership, and motivational characteristics of a child. The data collection may not be excessive, but "every possible way is sought to involve every segment of the community in the nomination process."

Frasier has not yet presented any data on the utility of her method, and she acknowledges that staff development will play a large role in the success or failure of her scheme. I'd be interested in hearing about the experiences of anyone who uses her techniques. K

Illustrations by Jim Hull

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Filling in the Gaps

By John A. Stewart

HOW DO you create an excellent school? According to Sandra Hellmann, principal of Snively Elementary School in Winter Haven, Florida, you start with the techniques developed for creating effective schools, add the methods of mastery learning, and combine these with a lot of old-fashioned caring.

That is the approach to school improvement that Hellmann and her staff have taken during the last five years. The results have been impressive. Achievement, as measured by statewide criterion-referenced tests and districtwide norm-referenced achievement tests, has risen substantially since 1986, even though many of the children in the school are from low-income families whose first language is not English. (In 1990 nearly half of the student body was Hispanic, and 25% of the student body was migrant.) Attendance is over 95% (up from 55% five years ago), and vandalism and graffiti have been virtually eliminated.

Snively's performance has won the district's Flag of Distinction Award five years running. The school's success with its own students has inspired it to offer satellite programs for parents, area preschoolers, and non-English-speaking locals.

That's pretty good for a school with a 105% turnover rate, a student count varying from 300 to 400 (depending on what local fruit is in season), and parents who are often illiterate at best and drug- or alcohol-dependent at worst.

JOHN A. STEWART (Florida Southern College Chapter) is the superintendent of schools in Polk County, Florida.

THE SAME OLD STORY

The school's disadvantages are not unique. Snively is located in a rural area where migrant workers, low-income families, and no-income individuals congregate. Eighty-five percent of the students receive free or reduced-price lunches.

The Snively difference is a principal and staff willing to believe in the possibility of building excellence in the worst of circumstances – and working to make it happen.

Until five years ago, "effective schools" and "mastery learning" were no more to Hellmann than buzz words she kept coming across in education journals. But the more she read, the more applicable the concepts seemed to Snively. As she explains, "We've always known we had bright, educable kids at Snively. But we also admitted that they compete in a system that is geared toward students from a totally different environment." Therefore, the staff at Snively must build on the children's limited foundation of prior knowledge before "teaching" can begin.

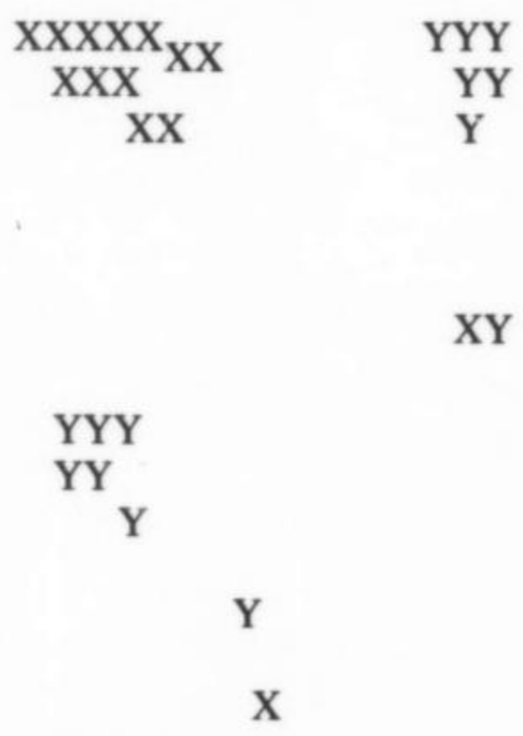
For instance, in order to understand a simple book about a Japanese child and his dog, many Snively students would have to be given a good deal of background information. Chances are they've never heard of Japan, much less developed any sense of the customs, clothing, physical characteristics of the people, or other cultural givens that are elements of a simple story line. "It's a constant process of filling in gaps," Hellmann says.

HOW DID Hellmann turn the school around? She began by becoming familiar with the work that had been done in identifying effective schools: those schools in which 1) most students complete the intended coursework and 2) there is no difference in the distribution of achievement by race/ethnicity, socioeconomic status, or gender.

Hellmann took a close look to see how Snively measured up against these two criteria and decided it was time for action. Her first step was to familiarize Snively staff members with the effective schools model and see if they were willing to adopt it for their school. She began

Classroom Types

BY VAL R. CHEATHAM



"I'm the substitute teacher. First of all, let me say that your seating arrangement does not match the one your teacher has in her plan book."

by spelling out the extra hours that staff members would have to put in if they accepted the challenge. She warned that teaching strategies might need change, emphasized that 100% participation would be vital for any degree of success, and pointed out the benefits for students.

Out of Snively's 25 teachers and 15 additional staff members, 17 volunteers showed up for the first after-hours organizational meeting. Custodial workers, teachers, lunchroom workers, and members of the clerical staff all wanted to get involved as well.

With the help of county research analysts, Hellmann created a survey instrument to determine the staff's perceptions of the extent to which Snively exhibited the traits of an effective school: a strong statement of mission, strong instructional leadership, a safe and orderly climate, high expectations and a commitment to learning, and the ability to monitor student progress. Committees were formed to study each trait and to identify the staff's perceptions of it through in-house surveys, discussion groups, observations, and past records. County support staff explained national, state, and county test data and how Snively fit into the picture. Teachers learned to read and interpret test scores and norms to find weak links in teaching strategies and then participated in brainstorming sessions to look for innovative, effective solutions.

Snively's mission statement now reads: "Snively Elementary School believes that the education of children is our reason for being. We expect each child to learn all skills needed for promotion to the next grade." This 29-word summary of educational objectives forms the basis of Snively's activities, lesson plans, and attitude.

In line with the mission statement, Snively teachers decided that high expectations would be a vital part of learning at the school. Each class now begins with an announcement of what the teacher expects of the students, and the teachers keep students aware of progress, problems, and possibilities through long-range planning, pacing, and the setting of intermediate goals.

Critical-thinking skills have become a vital part of a Snively education. A beginning math warm-up may be as simple as a thumbs up/thumbs down signal from each child in answer to whether a problem requires addition (thumbs up) or

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subtraction (thumbs down), but every student must respond in a tangible way. So begins the process of mastery learning.

Through teamwork, Snively teachers bond their instructional programs into one. The curriculum is reviewed by grade level, not just subject matter, and schoolwide faculty meetings highlight successes – large or small. The faculty lounge has become a place for mutual assistance at Snively.

While curriculum can never be totally individualized, Snively offers flexibility in its curriculum and learning techniques. Peer tutors, tape recorders, computers, and simulations are part of everyday life at Snively.

The physical environment of Snively cannot help but develop a sense of pride. The school itself is more than 60 years old, but the classrooms are freshly painted, the floors shine, and the brightly colored cafeteria sparkles. The Winter Haven Chamber of Commerce has awarded the school its Clean Campus Award for the last four years. Student and faculty work is on exhibit throughout the school.

The positive spirit of Snively's administration has set the tone of the school. More than 50 students a day skip, walk, or burst through the doorway of the principal's office to share a joke, an achievement, or just a hello. Corporal punishment is nonexistent, and the front door of the school remains open in most weather.

The word about Snively is out in the community as well. Local churches work in conjunction with Snively to provide summer activities, student clothing, and more. A group of local businessmen set up an annual college scholarship fund for Snively students, based on academic interest and need. Follow-up studies will track these students and encourage them to continue their education. As part of Snively's attempt to build key experiences for a schoolful of children whose worlds are sadly limited, the staff arranges a wide variety of field trips, including visits to a farm, a skating rink, and a factory. It's another gap filled.

Parents and preschoolers have also been touched by the changes at Snively. Hellmann wrote a letter asking if parents would like to learn to use the school library and receive library privileges with their children. She was overwhelmed with 65 responses. Today's "class" includes about 50 women who meet twice a month for half a day to discuss a variety of topics, from child care to hygiene to writing. The program has outgrown its volunteer beginning and now receives United Way funding. Hellmann also obtained state money to run two four-hour morning programs for preschoolers in the Snively area. Participants must qualify for federal free or reduced-price lunches, and parents sign a contract to meet with the supervisor twice monthly in class and twice monthly at home. Another gap is filled.

A federally funded program now pays for tutors for migrant children whose teachers have determined that they need extra help in such language skills as vocabulary and reading comprehension. In addition, a special bilingual program helps educate students in Spanish. Some migrant students are enrolled in both programs.

What is happening at Snively is clearly effective. It's exciting, it's progressive, and it's working. In fact, Snively Elementary has become a model for educating disadvantaged children. The most recent recognition of Snively's successes and potential accomplishments has come in the form of a grant from the Next Century Schools program, sponsored by the RJR Nabisco Corporation. One of 15 schools awarded grants in 1991-92, Snively will receive $750,000 over the next three years to expand and document its strategies.

SHARED PLAUDITS

Hellmann is quick to give her teachers and staff members full and unqualified credit for Snively's dramatic results. The Snively staff members pass the praise right back to Hellmann, attributing their success to her never-say-die attitude.

But Snively's climb to excellence is by no means finished. Each year, the school will target different areas, since, as Hellmann emphasizes, "We can't do it all at once and do it well."

When you come away from Snively, you feel good. Good about the school. Good about its students and teachers. Good about the system. It's comforting to know that Hellmann and her staff and other dedicated people like them are working to fill in the gaps. K

A Kink in Copying?

BY PERRY A. ZIRKEL

KINKO'S Graphics Corporation, a photocopying service, has a chain of 200 stores located near college campuses across the nation. For approximately 20 years, Kinko's has sold course packets, which are customized anthologies of excerpts from published books and articles that a professor has compiled for a specific college course. Kinko's openly solicits reading lists from professors for this purpose, providing incentives such as faculty discount cards for timely orders.

Unaudited financial statements for the corporation show revenues of $42 million in 1988 and $54 million in 1989. Separate figures for its "Professor Publishing" venture are not available, but Kinko's promotional materials admit that "tremendous sales and profit potential arise from this program."

Two of Kinko's New York City stores serve students at various local institutions of higher education, including Columbia University, the New School for Social Research, and New York University. Among the "anthologies" that these stores have sold to students were five packets ranging from 212 to 388 pages, copied from as few as seven to as many as 43 sources. The prices of these packets ranged from $11 to $24, which was far less than the total price of the books from which the excerpts were taken.

Each of the packets had a printed cover page bearing the Kinko's logo, "Kinko's Copies: Professor Publishing." Only one of the five packets listed a charge in the space provided for royalty fees. On the inside cover of three of the five packets was a sheet titled "Education and Fair Use: The Federal Copyright Law." None of the excerpts carried the copyright credit line that federal law requires.

Various major publishers, including Basic Books, Harper & Row, McGraw-Hill, and Prentice-Hall, brought a copyright infringement suit against Kinko's. They alleged that Kinko's had violated federal copyright law by copying and selling for profit, without permission and without payment of royalties, excerpts from books whose rights were held by these publishers. The plaintiff-publishers cited 12 specific instances of copyright infringement, pointing to excerpts varying in length from 14 to 110 pages that were included in the five course packets sold by the two New York stores. A few of these excerpts were taken from out-of-print books. The excerpts constituted from 5% to 25% of the original sources.

On 28 March 1991 the federal district court in southern New York decided against Kinko's, awarding the plaintiff-publishers over half a million dollars in damages and additional relief.[1] The primary issue in the case was whether Kinko's copying could be considered "fair use," which is an exception codified in the Copyright Act for purposes such as making multiple copies for classroom use. The four factors that determine fair use are 1) the purpose and character of the use, 2) the nature of the copyrighted work, 3) the amount and substantiality of the portion used, and 4) the market effect on the copyrighted work.

The court found that the first factor favored the plaintiff-publishers. Although Kinko's claimed an educational purpose, the court found that its purpose in copying the material was to make a profit. Moreover, the nature of the use was mere repackaging, rather than literary or other scholarly transformation.

The second factor weighed in Kinko's favor; the copyrighted works were almost all factual rather than fictional works. The court explained that factual works are believed to have a greater public value, thus requiring less protection.

The amount and substantiality factor, which relates not only to the quantity but also to the centrality of the portion used, weighed in the plaintiff-publishers' favor. Kinko's was on the losing side with regard to the number of pages copied and the percentage of each work copied. Kinko's also lost with regard to centrality: the court concluded that the excerpts were "critical parts of the books copied, since that is the likely reason the college professors used them in their classes." Moreover, since in almost every instance of alleged infringement Kinko's had copied at least an entire chapter of the original book, "these excerpts are not material supplemental to the assigned course material but *the* assignment."

The fourth factor, market effect, is the most important element of fair use, and again Kinko's was on the wrong side. By winning the competition for student dollars, Kinko's lost the market-effect test. Rejecting Kinko's argument that its anthologies serve to whet the appetite of students for more information from the authors, the court concluded that "it is more likely that purchase of the packets obviates the purchase of the full texts." Similarly, when Kinko's pointed out that some of the copied materials were out of print, the court countered that the "impact is more powerfully felt by authors and copyright owners of the out-of-print books, for whom permissions fees constitute a significant source of income."

Kinko's attempted to rely on an additional factor, citing the typical reasons for the widespread use of their course packets. The court was not convinced: "Notwithstanding professors' complaints of costly original materials, rapid change in course subject matter, and inadequate current offerings – which are all good reasons for desiring anthologies – defen-

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dant's witnesses did not produce evidence which would explain why they could not seek and pay for permission to create these anthologies."

Finally, Kinko's argued fair use based on the "Agreement on Guidelines for Classroom Copying in Not-For-Profit Educational Institutions," which is a part of the legislative history of the Copyright Act. Representing a negotiated compromise on the part of authors, publishers, and educational institutions, the guidelines provide more specific standards for fair use, including the use of multiple copies in classrooms. Pointing out that Kinko's is not a teacher or a nonprofit educational institution, the court concluded that, even if its copying had qualified for review under the guidelines, Kinko's would have received a failing grade for these reasons:

- The copying exceeded the standard of *brevity*, which includes an excerpt of "not more than 1,000 words or 10% of the work, whichever is less."
- The copying did not meet the standard of *spontaneity*, for Kinko's did not show that it did not have enough time to obtain permission.
- The copying failed the *cumulative effect* standard, which prohibits any more than "nine instances of multiple copying for one course during one class term."
- Kinko's did not include a copyright notice on the works in question, which is required in addition to meeting the tests of brevity, spontaneity, and cumulative effect.
- Kinko's failed the apparently overriding prohibition against anthologies, which the court regarded as important, although not alone absolute.

Losing conclusively on the question of fair use, Kinko's tried and failed with various secondary defenses, such as alleging monopolistic misuse and unconscionable delay by the plaintiff-publishers.

AS FOR THE remedies, the court issued an injunction against the defendant's future anthologizing and copying of the plaintiffs' present and future copyrighted works, unless Kinko's shows permission and prepayment of fees when the copying goes beyond the boundaries of fair use, as demarcated in this case. The

court rejected a more inclusive injunction, "for the simple reason that some anthologizing may fall within fair use requirements." Similarly, the court granted the plaintiffs a declaratory judgment that did not encompass their requested scope of "*any and all* instances of copying or 'anthologizing' without permission" but applied only to instances that exceed the boundaries of fair use. Third, the court granted statutory damages of $510,000, which were intended to deter future infringing rather than to represent the plaintiff-publishers' actual losses.

Kinko's tried to argue that it was an innocent infringer, but the court found that it knew, or should have known, that it was infringing the plaintiffs' copyrights. Kinko's also tried to transfer liability to the colleges and universities, arguing that it was merely acting as their agent. However, the court disagreed, finding that Kinko's had not shown that the professors exerted a sufficient level of control over the relationship.[2] Based on Kinko's "historic willful blindness to the copyright law," the court also awarded attorney's fees and costs.

As a result of this suit, Kinko's and other copy centers will probably put stricter emphasis on obtaining permissions and pass the increased costs of royalty fees on to the student-purchasers. According to the attorney for the plaintiffs, Charles Sims, Kinko's has already changed its policy to require permissions for *all* multipage excerpts for its on-demand anthologies. Kinko's attorney, Jeffrey Handelman, would not confirm this purported policy change, asserting that such matters, including the amount of attorney's fees, are subject to confidential negotiations with the plaintiffs.

Some off-campus copyshops are attempting to put the burden on professors. For example, Longhorn Copies, a photocopying store near the University of Texas at Austin, plans to require professors to sign a waiver saying that they have received the necessary permissions.[3]

The indirect effects on other educational "copiers" are much more speculative. The court was careful to note expressly that it was not deciding the issue of "copying performed by students, libraries, nor on-campus copyshops, whether conducted for-profit or not." Nevertheless, the decision gives these individuals and organizations cause to recheck the limits of fair use.[4] Those who are engaged in copying for nonprofit educational use have wider latitude than Kinko's, but this factor obviously should not be interpreted as being a license without limits.

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1. *Basic Books, Inc.* v. *Kinko's Graphic Corp.*, 758 F. Supp. 1522 (S.D.N.Y. 1991). Supplementary information was obtained via telephone interviews with the plaintiff-publisher's attorney, Charles Sims, and Kinko's attorney, Jeffrey Handelman, in early July 1991.

2. Kinko's cleverly had the professors sign an order form that stated that "the materials to be copied . . . constitute only a small part of the entire work," and "[i]f such copies were not available, I would not require students to purchase the work." The court found, however, that Kinko's retained responsibility for the permissions process.

3. Debra Blum, "Copyright Ruling on Anthologies May Spur Vigilance," *Chronicle of Higher Education*, 10 April 1991, p. A-14.

4. See, for example, Perry Zirkel, "Know Your Copy Rights," *Teacher*, May 1990, pp. 68-69. Other doctrines in the Copyright Act, such as "works-for-hire," are also relevant to educators. See, for example, Margaret Smith and Perry Zirkel, "Implications of *CCNV* v. *Reid* for the Educator-Author: Who Owns the Copyright?," *West's Education Law Reporter*, 3 January 1991, pp. 703-12. K

IN CANADA

National Testing, Canadian-Style

BY TOM MCCONAGHY

WITH THE rise of political conservatism in the United States, Great Britain, and Canada in the past decade, the use of standardized testing has greatly increased. The debate over standardized testing in the U.S. recently reached a new pitch when President Bush announced his America 2000 strategy for education, which includes a provision for nationwide achievement testing. Nationwide achievement testing is also the focus of much discussion and debate in Canada.

In Canada, politicians want a common measure of how well the provincial systems are preparing students for the economic reality of the next century. Another argument for national testing – also heard in the U.S. – is that this snapshot of what students are doing or not doing in the core subjects will provide policy makers and educators with the data necessary to adjust the education system to be more competitive with Japan, Germany, and other world economic leaders.

Alarmed by reports of falling Scholastic Aptitude Test scores in the U.S. and propelled by the desire to become more competitive with the leading industrial nations, provincial politicians in Canada decided to initiate a cooperative effort to look at Canada's educational performance. In 1989 the Council of Ministers of Education, Canada (CMEC), a body made up of ministers of education from the 10 provinces, the Northwest Territories, and the Yukon Territory, approved the goals and objectives for a School Achievement Indicators Project (SAIP). This national testing program will develop Canadian instruments to assess the reading, writing, and mathematical skills of 13- and 16-year-old students in each province.

TOM McCONAGHY (University of Alberta Chapter) is an editorial consultant and education writer in Edmonton, Alta.

In announcing the SAIP, Jim Dinning, minister of education for Alberta, said: "This program will provide a useful information base that we've never had before. We will have data that will allow us to compare Alberta's educational system with the schooling in other provinces and territories.

The tests will be developed by a team of civil servants from the education ministries of Alberta and Quebec. This approach to testing seems likely to differ from that of the U.S., which will probably use commercial firms to devise its proposed national achievement tests. Another difference between the proposed American achievement tests and the SAIP is that the American tests will attempt to document students' knowledge in five core subjects (mathematics, science, English, history, and geography), whereas the Canadian tests will focus mainly on literacy and numeracy.

In a recent development, many educators, school board officials, businesspeople, and parents who favor national testing were shocked when Marion Boyd, the education minister in Ontario's newly elected New Democratic Party (socialist) government, announced that her province would not participate in the nationwide tests scheduled for May 1993. Most editorial writers condemned Ontario's decision as a threat to a promising experiment.

How are the national achievement tests different from other standardized tests administered by most of the 10 provinces? According to Jim Brackenbury, director of the Alberta SAIP, this assessment is being designed with the help of Canada's classroom teachers and will focus on what students *can do* rather than produce headlines about what they *can't do*. Teachers will validate the criteria and will be involved in administering the assessment activities. Teachers will also score portions of both the field tests (Sep-

tember 1991-December 1992) and the final tests (May 1993). The assessment instruments will include machine-scored and open-ended questions, as well as performance-based activities, which will be designed by teachers.

Even though teachers are to be involved in all aspects of the testing program, the Canadian Teachers' Federation (CTF), representing 230,000 elementary and secondary teachers, reaffirmed its opposition to standardized tests when it held its annual meeting last July. But Stirling McDowell, secretary-general of the CTF, warned delegates at the meeting that teachers will have to be prepared to explain their opposition to a national testing program; otherwise, critics will say that teacher unions oppose tests because they might reflect badly on teachers' competence.

The teacher organizations in Ontario supported the education minister's decision to opt out of the program. However, many school board officials were upset over Ontario's withdrawal from the SAIP. In a memorandum to all school boards in the province, dated 5 July 1991, Boyd outlined her reasons for not cooperating with the SAIP. Her main objections are that the sample of students to be tested is too small and that the project design does not ensure that the sample will be adjusted to reflect the demographics of the province. She also does not believe that the project will help Ontario to evaluate how its curriculum and its teaching methods can be improved.

With Ontario maintaining an observer status in the SAIP and excluding its students – the largest student body in Canada – from the testing program, a glaring gap will be obvious in what, according to CMEC officials, was intended to be a national profile of Canada's elementary and secondary school systems. Nevertheless, the CMEC is going ahead with the project, in the hope that Ontario's concerns can be resolved satisfactorily. Even if Ontario continues to refuse to participate, the proponents of the SAIP believe it will still provide useful data.

On another front, it is possible that the federal government, which has recently released a discussion paper on a proposed national education program, will undertake its own national program of standardized testing. But that's a topic for another column. K

BACKTALK

A Loss for Us All

The recent and unexpected death of Michael Bruce, the *Kappan* In Europe columnist, leaves a gap that will be difficult to close. For those who knew Michael, the loss is intense, for he was not only a knowing person; he was also a caring person and a person with a great joy in living. He was open, warm, and spontaneous. His friendships were real and lively, and his quest for knowledge was deep and lasting. Since Michael's family consisted of his friends and readers, we shall all feel his passing deeply. As no man is an island unto himself, we are each affected by the loss of one such as Michael Bruce. – *Elizabeth Stimson*, assistant professor, Bowling Green (Ohio) State University.

Gibboney Got It Right

From practice teacher in Evanston Township High in the 1930s to advisor to the Citizens School Committee in Chicago today, I've been engaged with just about every reform adventure. In "The Killing Field of Reform" (May), Richard Gibboney has it right!

Unless we recognize the technological mindset for what it is, I fear for our hopes to prepare the young – and our nation – for the century soon to be upon us. And should we, by some miracle, succeed in going for "fundamental change" along intellectual and democratic lines, as Gibboney advocates, we will surely need a monumental intellectual and democratic effort to bring it off.

So who's to destroy and then prepare the "killing field" for fundamental reform? We are. That's who. – *Milton Garfield*, Evanston, Ill.

Errors in Baker

Several assertions in Keith Baker's analysis of the effect of expenditures on educational achievement, "Yes, Throw Money at Schools" (April), are wrong and should have been corrected by the editors.

First, Baker claims that the U.S. Department of Education (ED) has used the annual State Education Performance Chart – the Wall Chart – to show that spending does not produce higher academic achievement by comparing costs and achievement in Alaska and Vermont. In reality, ED has never used Alaska as an example, because ED recognizes that the high cost of living in Alaska makes that state's expenditures statistical "outliers," not comparable to expenditures in other states.

Second, in an attempt to discredit the Wall Chart, Baker states that the results of the statistical analysis of the data prepared by the contractor "are not shared with the public." On the contrary, this analysis is typically referenced in a summary of the indicators that accompanies the chart and is made available to the public.

Third, in another attempt to discredit the Wall Chart, Baker states that the average scores on the college admissions tests reported on the chart completely depend on differences in the proportion of students taking the tests and on state policies governing who takes which tests. As proof, he cites a .80 correlation between the proportion of students tested and a state's average score. He claims that ED management did nothing about this finding.

In reality, the Wall Chart does take into account differences from state to state in proportions of test-takers: a state's score on a particular test is shown only if more than 40% of the state's graduates take the test. Thus Scholastic Aptitude Test scores are shown for 23 states, and American College Testing Program scores are shown for 27 states. Using this method, for ACT states, the correlation between 1989 test scores and the percentage of graduates taking the test was –.02; for SAT states, .14. These results are inconsistent and insignificant. That is, once states with very small proportions of their students taking the test are removed, test participation has little effect on the state's average score.

I am concerned that incorrect statements of fact slipped through the process of reviewing the article. The statements could have been verified or shown to be false with a simple phone call to my office from the *Kappan*. The issues Baker has raised are important, and this office stands ready to contribute correct facts and figures to any analysis of them. – *Alan Ginsburg*, director, Planning and Evaluation Service, U.S. Department of Education, Washington, D.C.

The Author Responds

Before I respond to Alan Ginsburg's specific points, I wish to note what he, apparently speaking for the U.S. Department of Education (ED), did not disagree with. He did not disagree with my conclusion that there is a positive relationship between spending and achievement, contrary to the repeated claims of former Secretaries William Bennett and Lauro Cavazos and their minions. He did not disagree with my statement that, while Bennett was claiming that the Wall Chart showed no relationship between spending and achievement, the Wall Chart

We welcome comments on Kappan *articles. Address letters to Backtalk,* Phi Delta Kappan, *P.O. Box 789, Bloomington, IN 47402. Letters selected for publication may be edited for space and clarity. Please hold your comments to no more than 250 words. – The Editors*

analysis showed a positive relationship between them. He did not disagree with my conclusion that the policy of ED on this issue was wrong.

Ginsburg's first point is that ED has never used Alaska in comparisons of spending because of the high cost of living in Alaska (a point I also made in my article). This is a straw man. I said that Secretary Bennett – not I – compared Alaska to Vermont at a press conference. Ginsburg does not disagree with that statement. Instead, he changes the subject to say ED does not do that. Good for them; shame on Bill Bennett.

Ginsburg's second point, which he describes as my "attempt to discredit" the Wall Chart, is another straw man. He objects to my pointing out that, while Bennett was claiming that the Wall Chart showed no relationship between spending and achievement, an analysis of the Wall Chart data done for ED showed a positive correlation between the two because ED now apparently publishes something else. As far as I know, my article was the first time that this analysis was made public. Ginsburg cites no other occasion. Instead, he changes the subject again and refers to a summary that now accompanies the Wall Chart. However, when I unfolded my 1989 Wall Chart, I could find no such summary nor any reference to any analysis of the data.

Ginsburg's third point addresses a footnote in my article. I alluded very briefly to the problems that the self-selection of test-takers poses for the use of SAT and ACT scores as national indicators. Ginsburg calls the test-takers "graduates," which is incorrect; the Educational Testing Service calls them "college-bound seniors" to reflect the fact that the SAT is taken well before high school graduation by students who plan to apply to a college that requires the test for admission. The fact that 40% or whatever of the students take the test in no way mitigates the bias this self-selection introduces into the test scores, and that bias makes them problematic indicators of the achievement of *high school graduates*.

That the Wall Chart in one year disguised the correlation between the size of the test-taking population of a state and that state's scores does not correct the problem in other years.

It is also interesting to note that one of the problems with the data relating

achievement and spending that I discussed in my article was attenuation of the correlation resulting from the failure to represent the full range of spending. Ginsburg's analysis is an attenuation of the proportion of the population taking the test. The effect is to change a correlation of .80 to zero. This is impressive, and it suggests the degree of distortion possible in the achievement/spending data.

In retrospect, I can see how Ginsburg could have mistaken the point I was trying to make for an attack on the Wall Chart (which was long ago discredited by others). However, I was attempting to provide examples of how political appointees at ED twist research in pursuit of their political agenda. The following would have been a better example:

> On September 4, 1988, I criticized the U.S. Department of Education for misrepresenting statistics to "prove" that money doesn't matter in education. The basis for my story was a graph, which I reproduced, whose source was listed as the Center for Education Statistics and that was distributed by a high Department official. . . . [T]he graph exaggerated the rise in spending . . . and exaggerated the decline in SAT scores. . . . I am relieved to report that the NCES did not prepare the graph. Unfortunately, I was nonetheless right to finger the Department for misleading the public. The graph was actually prepared by the Department's Office of Planning, Budget, and Evaluation." [Ginsburg's office]

That's from Albert Shanker's column, which appeared on 18 September 1988. Not only did Ginsburg's office prepare the graph, but the unnamed "high Department official" referred to was Ginsburg's direct supervisor, a political appointee.

Ginsburg is as aware as anyone of the problem of the misuse of research for political gain, and I know him well enough to know that he does all within his power to limit such abuse. Unfortunately, there are those in the U.S. Department of Education with more power and fewer scruples than he. There is something seriously wrong with the system when research is so easily distorted to justify bad policy for narrow political purposes.

Ginsburg says that "a simple phone call" to his office would have cleared up the supposed errors in my article. I think not. The staff of Ginsburg's office has been instructed by the management of ED not to take phone calls from journalists or from members of the public. Whenever they get a request for information, they are to relay that request, unanswered, to one of the department's political officials – even when the request deals with research.

Writing to ED doesn't always work either. All letters addressed to Ginsburg's staff are opened in the office of a political appointee. A decision is then made whether to send the letter on to the addressee or to do something else with it.

I made several requests for information to Ginsburg's office under the Freedom of Information Act, some as long as 18 months ago, which have never been filled despite the legal requirement that the information be supplied within 10 working days. – *Keith Baker*.

Keep the Wheat, Please

In "Innovation or Enervation? Performance Assessment in Perspective" (May), Gregory Cizek proves himself a champion at separating the wheat from the chaff – and keeping the chaff.

He cites my *Kappan* article, "The $150 Million Redundancy," as typical of complaints that standardized testing costs too much. The wheat word is *redundancy*. The complaint I lodged was that the money spent is wasted because it garners nothing for us. Oddly, Cizek quotes from another of my articles but ignores a discussion therein, which says that "development costs [of alternative assessments] are going to be large" and notes, without opprobrium, that an expanded National Assessment of Educational Progress might cost $100 million by itself. I don't mind spending money, per se.

Instead of searching through the haystack to find highly selective needles that appear to support his case (the wheat word is *appear*), Cizek should hang out for a while with those of us who advocate assessment reform. Had he attended a UCLA-sponsored conference on alternative assessment last March, he would have heard us talking about the long time frames necessary if the endeavor is to succeed. "We ought to be talking in decades," said Marshall Smith, Dean of Stanford University's School of Education. I know of no serious proponent of performance assessment who views it as either a fad or a quick fix (the wheat word is *serious*).

Similarly, Cizek would benefit from a little firsthand exposure to those who actually work in the field of learning. He quotes me as calling for the measurement of higher-order thinking and then cites the qualities I use to characterize such thinking. His comment on my characterization is "Zowie!" And then he finds me guilty of "Star Wars" fantasies about assessment.

I appear to own these words, however, only because the format of the article made it awkward to use attributions and references. Anyone possessing only a nodding acquaintance with cognitive psychology would recognize that those words come from the opening pages of Lauren Resnick's 1987 booklet *Education and Learning to Think*, published by the National Academy of Sciences, an organization not usually associated with fads and vogues.

I don't know if I am more gladdened by the power of Grant Wiggins' rebuttal (even allowing that he is firing in a target-rich environment) or more saddened that a serious thinker might have dignified a piece of fluff beyond its merits. In any case, it's obvious Cizek had fun writing his article. If he wants us to take him seriously, though, he must get serious himself. – *Gerald W. Bracey*, policy analyst, National Education Association, Washington, D.C. K

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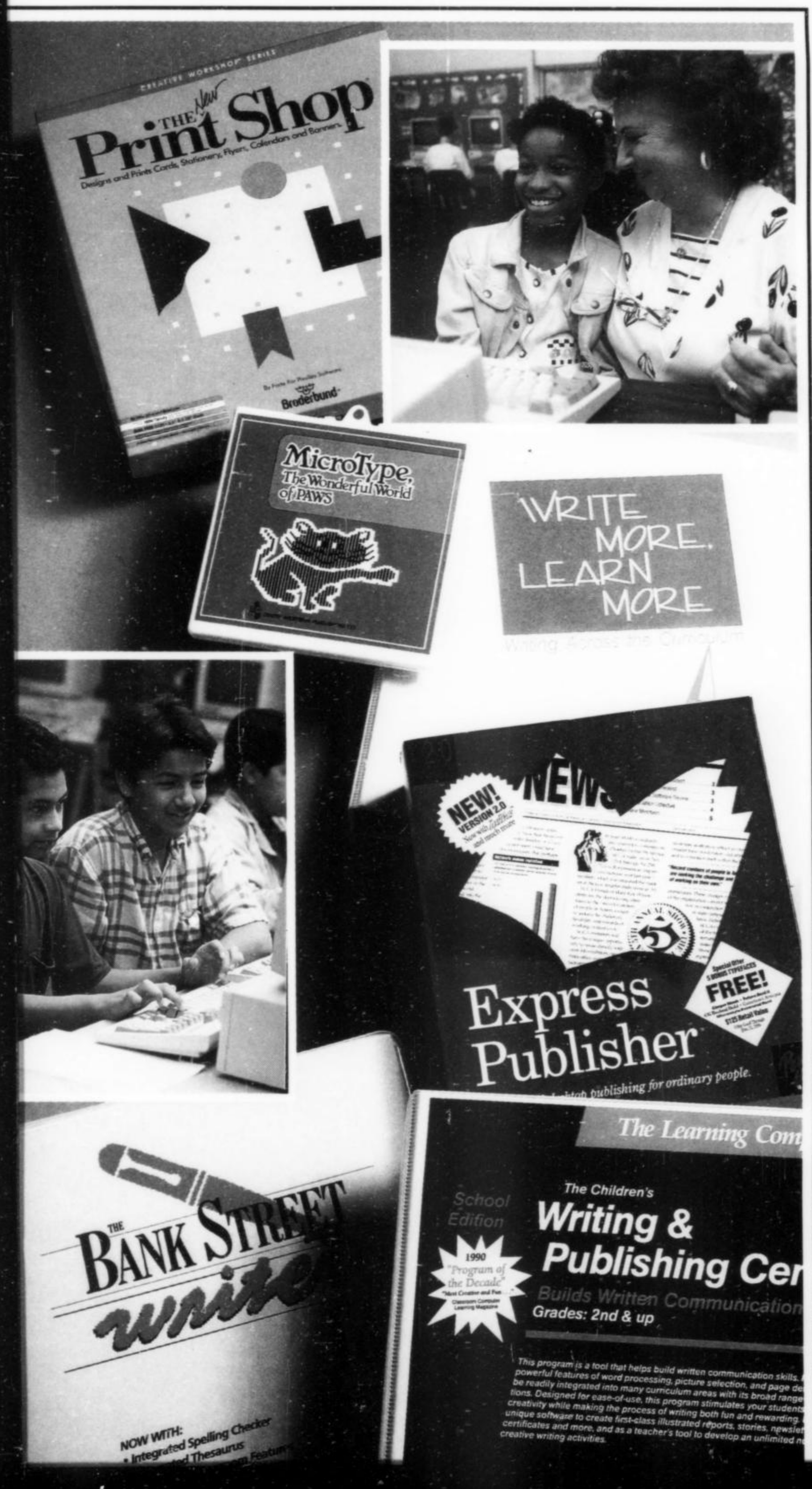

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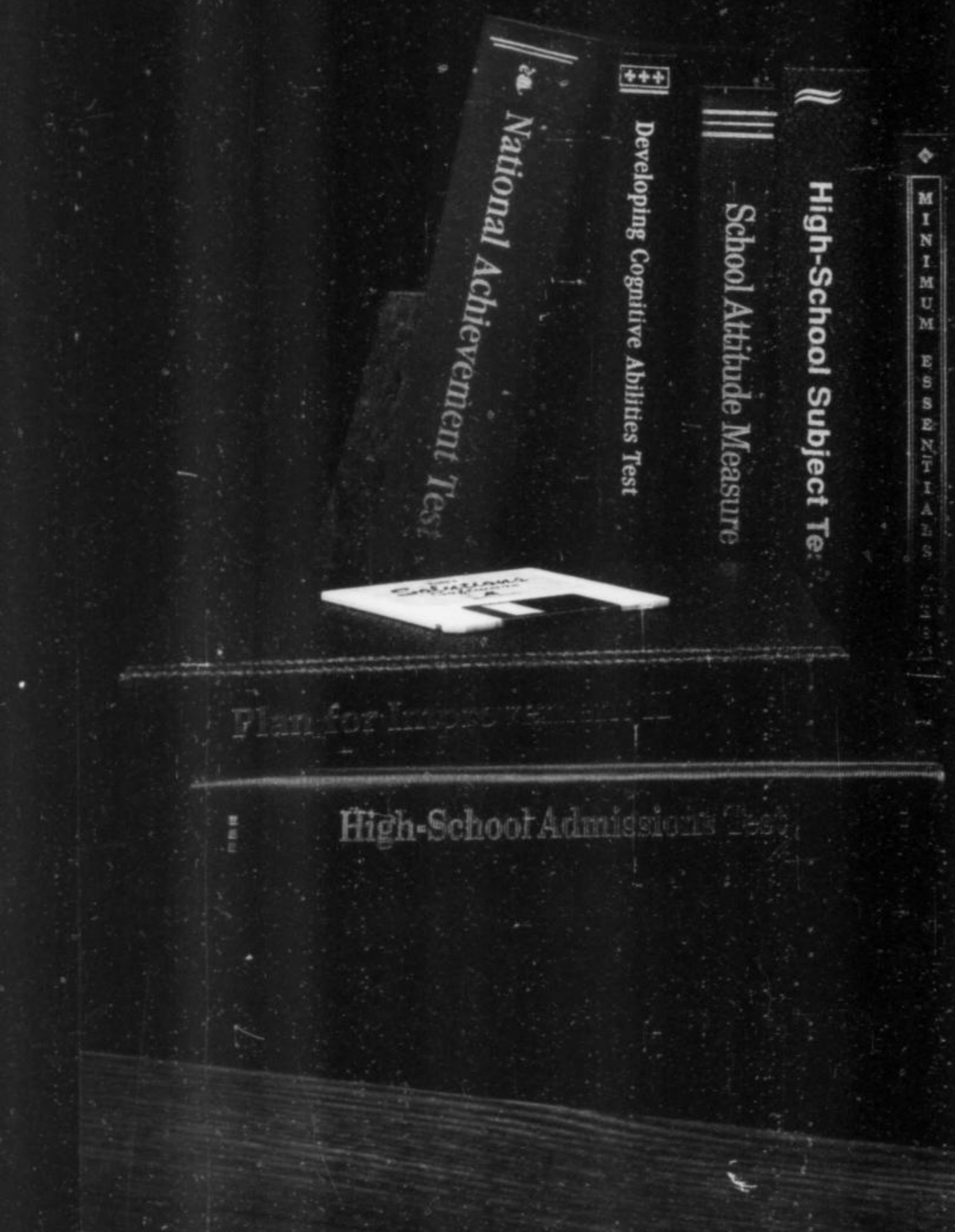

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