Schools are going to improve only after we've taken a close look at our values and priorities and recast the school structure.

High schools, even small ones, are very complicated places. Most have multiple objectives. Virtually all have a complex, sensitive apparatus of departments, grades, class schedules, and activity programs. Without exception, every one is filled with those perplexing creatures called adolescents.

Over the years, a set of conventions about how to "keep high school" has emerged and is now so familiar that it is rarely questioned. Students proceed upward, grade by grade, grouped by chronological age. The curriculum is the long shadow of departments classified as English, mathematics, science, social studies, physical education, business education, and so forth. The coinage in school is valued by time spent—the 55-minute period, the year ("four years of English"), and "units" completed. School starts in the early morning and ends in the early afternoon, with a calendar of some 180 days stretching from Labor Day to about a fortnight before Independence Day. The dominant metaphor for education is that of donation: we older folks give an education to students, we deliver them a service. High school teachers accept a comprehensive charge to help adolescents prepare for adulthood—academically, socially, vocationally, personally, even morally.

Any time one wishes to challenge—much less change—any one of these conventions to any significant degree, one finds that most of the others are also affected, often crucially. Eliminating age grading upsets the sequencing of courses. Lengthening the time of each class period reduces the number of classes per day, cutting out some departments' offerings and thus employment for its teachers. The recent record of trying to improve one or another aspect of school life independent of the other aspects connected to it is one of frustrating failure, as Seymour Sarason has pointed out. The "regularities" and "assumptions" of keeping school—the conventions beyond challenge—make change almost impossible!

Until we rethink those conventions and act on a new set of "regularities," significant school reform cannot take place.

Clear Thinking
Take the current high-priority goals of improving the "higher order thinking skills" of high school students—abilities of careful observation, classification, and resourceful reasoning—and of helping these young people to use those skills with clarity, focus, and even grace. The National Assessment of Educational Progress (1981) has painted a gloomy picture of current achievement in this area, one that depicts adolescents as having developed "very few skills for examining the nature" of their ideas. The College Board (1983) has identified certain key "reasoning" competencies as...
"basic": "the ability to identify and formulate problems, to recognize and use inductive and deductive reasoning, to draw reasonable conclusions from information found in various sources, to comprehend, develop, and use concepts and generalizations, to distinguish between fact and opinion." The need is evident. The ends are clear. What is required to achieve them?

First, teachers need time to figure out how each student thinks; all 15-year-olds, for instance, don't conveniently reason in similar ways. One cannot help another to reason logically without understanding how that person now reasons; one starts with error and leads to accuracy. This routine cannot be mass-produced; it proceeds one by one, step by step.

Second, students need to be able to verbalize, or in some way show, the product of their thoughts. Unless teachers can grasp the steps used by students in their own minds, they cannot begin to help pupils learn to reason clearly. Just telling youngsters that they've got the right or wrong answer doesn't help very much. Students must learn why answers are right or wrong; to make this possible they must be able to account for their thought processes in a manner comprehensible to the teacher.

These two steps are not remotely possible if a teacher is responsible for 150 to 180 students. That's too many minds to comprehend. Only personalized work will be effective, and this can happen only if the total number of "minds to get to know" falls below 80.

Furthermore, the time-absorbing task of analyzing a student's thinking cannot proceed if "coverage" is a non-negotiable imperative. If you have to get to the Civil War by Christmas, you may not have time to help students puzzle out the reasons for their faulty observation, unpersuasive analysis, or flawed reasoning about the War of 1812.

Reasoning competencies as outlined by the College Board are part of every "subject" in the curriculum—or of none, if teachers elect to ignore them. While there is some interesting evidence that teaching thinking directly—essentially as its own "subject"—is effective, few schools have seriously considered creating special courses focused on the processes of inquiry and analysis. Tradition insists that such skills must remain implicit in existing "subjects"—where, in fact, they usually remain neglected.

One tests for intellectual clarity by examining a student's thinking processes, usually expressed in a written essay, or if necessary, orally. Such tests are difficult to construct, complicated to validate, and very time-consuming to criticize well. Tests of facts are easier, both to take and to grade. Thus, the over-busy teacher shys away from thought-provoking and thus thought-evaluating tests, and students don't complain.

Most schools assert that a 1:80 teacher-student ratio is a pipe dream; that Coverage is King, that a special focus on the College Board academic competencies for reasoning has somehow to be enveloped within existing departmental programs; and that there isn't time for careful testing. As a result, schools don't teach kids to think clearly and deeply.
The abysmal evidence of this continues to slosh around our feet.

Money
Take another sort of issue, that of teacher salaries and school budgets. Most of us want salaries to go up, a lot. Few Americans want budgets to go up much at all. The paralysis is total between rhetoric ("our devoted teachers deserve salaries comparable to those offered to similarly trained persons in industry") and reality (government at all levels is faced with immense problems merely covering existing commitments, much less adding to them). One does not have to be a cynic to observe that the intense political interest in merit pay—whereby only a few folks would get more, thus creating no big new budget pressure—is nice evidence of the current financial log-jam.

All budgets ultimately are expressions of compromises. We value A more than B, so we fund A at a 95 percent level and B at a 35 percent level. If we change our values—that is, make different compromises—we see different results.

One practice high schools value is the specialist system. We compromise other things to protect it. Administrators administer. Art teachers teach only art. Coaches coach. Custodians sweep. Librarians tend libraries. High school teachers are more narrowly circumscribed to the areas they may teach than are many faculties of graduate schools of law or business. Such specialization carries great costs; it is wasteful, however nice. It might well be changed.

Consider the following pro forma budget argument: Take the average "regular day" cost per pupil in Massachusetts (that is, excluding special, bi-lingual, and vocational education) and add 10 percent, which would be a politically reasonable hike in educational expenditure for that state. The total per pupil is around $3,100. Thus a typical senior high school of 800 students will get an operating budget of $2,480,000. In Massachusetts, 73.5 percent of such a typical school's budget goes to "instruction, administration, and pupil services" or, in our example, $1,822,800. Let us assume that 10 percent of this sum is for expendable equipment and materials; this leaves us $1,640,520 for salaries and benefits. Let's be generous on benefits, with 15 percent. That leaves us $1,394,442 for cash salaries.

Let us set the average cash salary at $28,000—some $7,000 over the existing national average (Boyer, 1983, p. 169). That gives us about 50 full-time-equivalent (FTE) professional staff, or a 1:16 staff-student ratio.

Now let's put two FTE aside for administration and create only four departments or areas, each (for simplicity's sake) with 12 FTE teachers. Let's assume that each teacher is actively in the classroom three quarters of the time; that is, 37 teachers would be actively with students at once. This yields an in-class ratio of 1:22. If that "three quarters of the time" were, in fact, three two-hour instructional sessions over a two-day period, each teacher would need to "know" only some 66 individual students.

This model assumes but four departments or areas. Happily, there are powerful arguments in favor of such simplification that have nothing to do with money, ones that just happen to coincide with the financial imperatives. One such division into areas would be the four subject groupings of Inquiry and Expression, Mathematics and Science, Literature and the Arts, History and Philosophy. There may be others (Sizer, 1984). The principle is that teachers would be expected, individually or in teams, to teach more widely across the curriculum than is presently the case—in a word, to shed their narrow specialization.

The model assumes teacher operation of most support services—media center, library, counseling, athletic coaching. This is quite possible; many financially strapped schools do it now, with good results. Teachers with student loads of 66, rather than 150 to 180, could handle this efficiently. The gains in the counseling area could be the most dramatic.

The model also assumes big time blocks for each curriculum area. Again, there are pedagogical reasons for this, independent of financial considerations. One can continue the explanation for this pro forma budget and program... and one can already hear the howls of challenge and protest. However, no part of the program I have outlined here hasn't been in actual and effective use somewhere. The total package may be new; the constituent parts are not. My point is, however, simple: by compromising specialization, one gains far more favorable teacher/student ratios and conditions for learning than usually now seen, and higher salaries—at no appreciably different per-pupil cost.

More money put into the existing highly complex and specialist-dominated system is a more comfortable solution to our problems than changing our existing compromises. Yet that money is highly unlikely to come. Therefore, if we don't realign our priorities, we will continue with the familiar "regularities": low teacher salaries, frenetic daily schedules, and tremendous student loads on each teacher.

All this pro forma exercise suggests is that we try some new compromises, by altering the structure and the ways that services are delivered. In so doing, we inevitably assert new priorities—in this example, those of teacher compensation and student load. Perhaps these priorities are better ones than those to which we currently cleave.
Student as Worker

Let's say that we believe that the most important thing our students can carry away from their experience in school is the ability to teach themselves, and the habit of doing so. We know that each of us forgets some 80 percent of the factual information we collect at school within but two years (Goodlad, 1983, chapter 4). Thus, learning how to learn is the key for long-term usefulness.

Just as in learning to write, sing, reason, or to throw the discus, the principal manner of grasping this skill of “learning how to learn” is through experience. These abilities of knowing how to cast a question (whether an abstract rationale) or to understand and to follow customary instructions...to develop and use general and special vocabularies...to understand and to follow customary instructions..." The Board's (1983) argument concludes that "sensible outline of "Basic Academic Competencies." Under the label of "Studying," the Board lists various skills: "the ability to set study goals...to locate and use resources...to develop and use general and special vocabularies...to understand and to follow customary instructions..." The Board’s (1983) argument concludes that “successful study skills are necessary for acquiring (the basic academic) competencies as well as for achieving the desired outcomes in the Basic Academic Subjects (English, the arts, mathematics, science, social studies, and foreign language). Students are unlikely to be efficient in any part of their work without these study skills” (p. 10).

Can students learn how to learn to “study,” when they are rushed from class to class over a seven-period day, where they are being taught by six or seven different teachers, no one of whom sees them more than five hours per week (and usually in groups of over 20 students), and when there is rarely any unequivocally reserved time for private study (homework, study halls)? Of course not. Yet many, indeed most, high school students live with this sort of regimen. No wonder they lack the study skills the College Board admires.

New Compromises

Such are but three examples of the poor fit between some widely accepted goals for high schools and the routines we have long used to try to achieve them. Until we honestly confront the inadequacy of school structure, we will continue to cheat students, frustrate teachers, and waste money. John Goodlad (1983), after a painstaking, exhaustive analysis of American schools, put it simply:

I do in fact doubt that schooling, as presently conceived and conducted, is capable of providing large segments of young people with the education they and this democracy requires...far-reaching restructuring of our schools and indeed our system of education probably is required for us to come even close to the educational ideals we so regularly espouse for this nation and all its people (pp. 91, 92).

There are steps to take to tighten up the existing system; Goodlad suggests many, as have others. But true excellence awaits the bolder remedies, or to put it more humbly, different compromises □

See Seymour Sarason, 1972 and 1983. The three volumes emerging from our Study of High Schools elaborate on this theme of "structural" problems in the schools. My book, Horace's Compromise: The Dilemma of the American High School (Sizer, 1984), focuses on it. Robert Hampel's (1984) history of high schools since 1940 tracks some aspects of schooling that have changed, some which have not, and why. And an analysis of 15 high schools carried out by Powell, Cohen, and Farrar, is due in fall 1984.

While these competencies are especially directed at the 50 percent of high school students who are college-bound, it is difficult to see how most of the Board's recommendations would not apply to all students.

See, for example, the various arguments presented by de Bono (1967). The NASSP-sponsored programs to assist students to prepare for the SAT are, in some important respects, courses in thinking. School people would also do well to reflect on the "direct" teaching of analytic thinking in law and business schools, using the case method.


See Horace’s Compromise, Part III (Sizer, 1984). On hearing of this idea for broadening the teaching responsibilities of teachers, some friends protest: many teachers are incompetent in their native fields, and you want even to expand their areas of incompetence? My response is to acknowledge that education’s glass is half empty and that we should worry about that. But it's half full, too: there are many teachers ready and able to take broader responsibilities—and a corps of able potential teachers out there who might join the profession if the conditions of work improved. Education policy today focuses too much on the empty part of the glass, the weaking teachers. We’d do better to shift more attention to the best instructors, and on ways to attract and hold them in the profession.

References


