

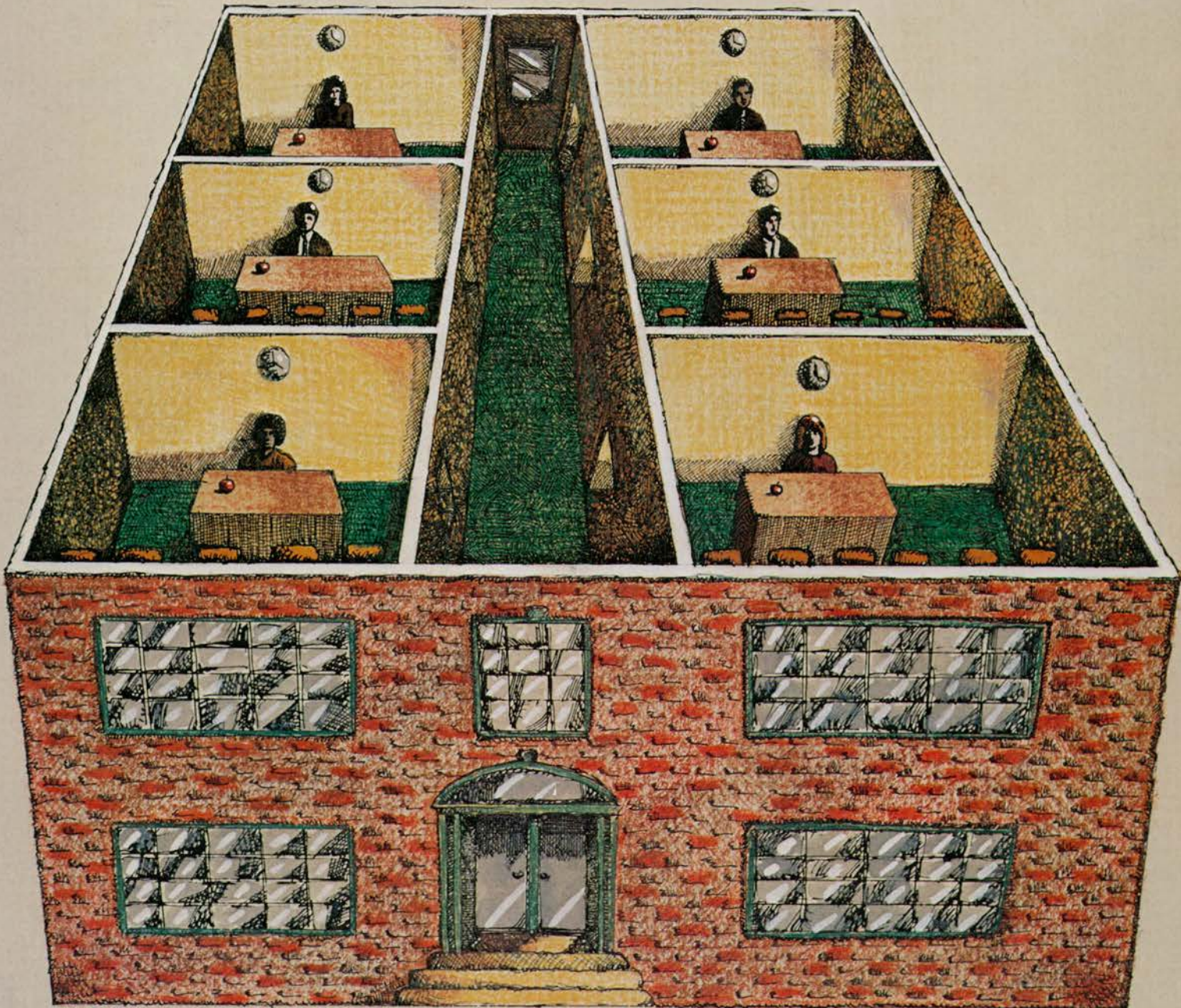
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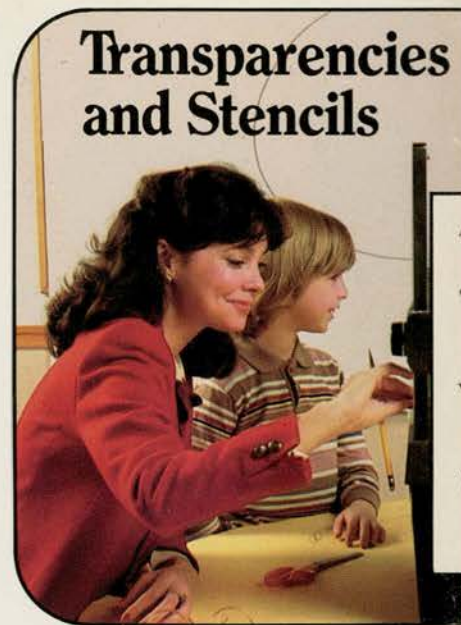
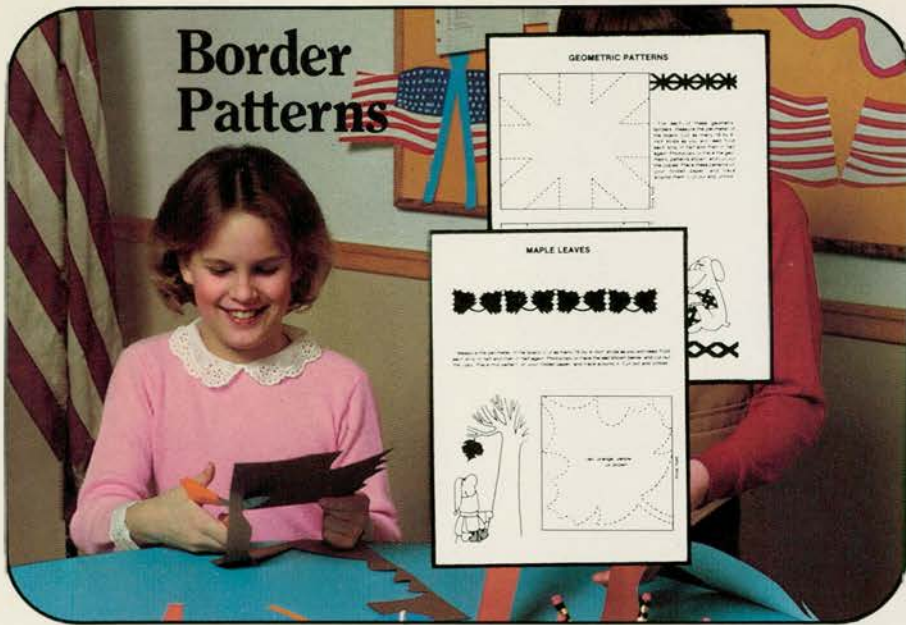
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AMERICAN FEDERATION OF TEACHERS
WINTER 1984

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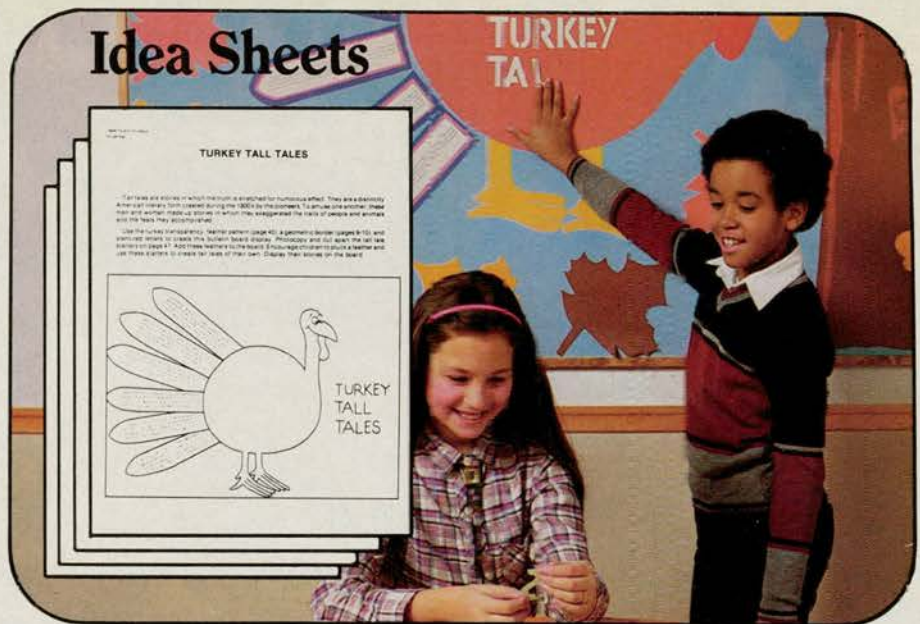
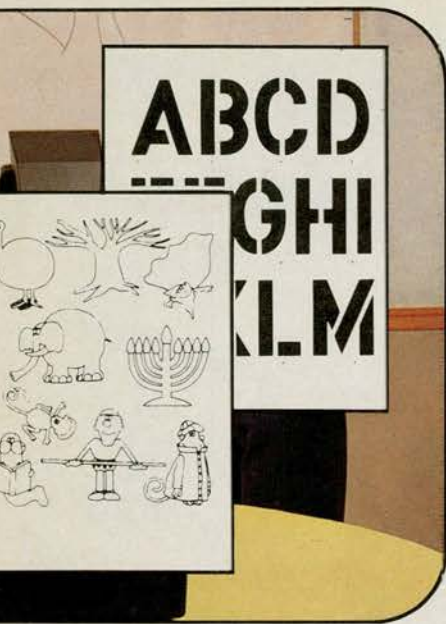
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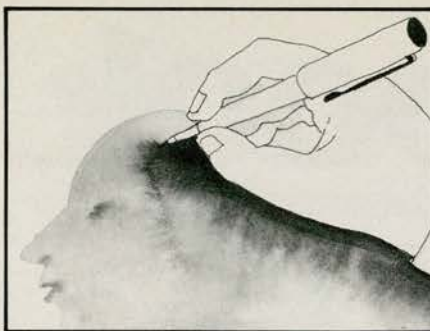
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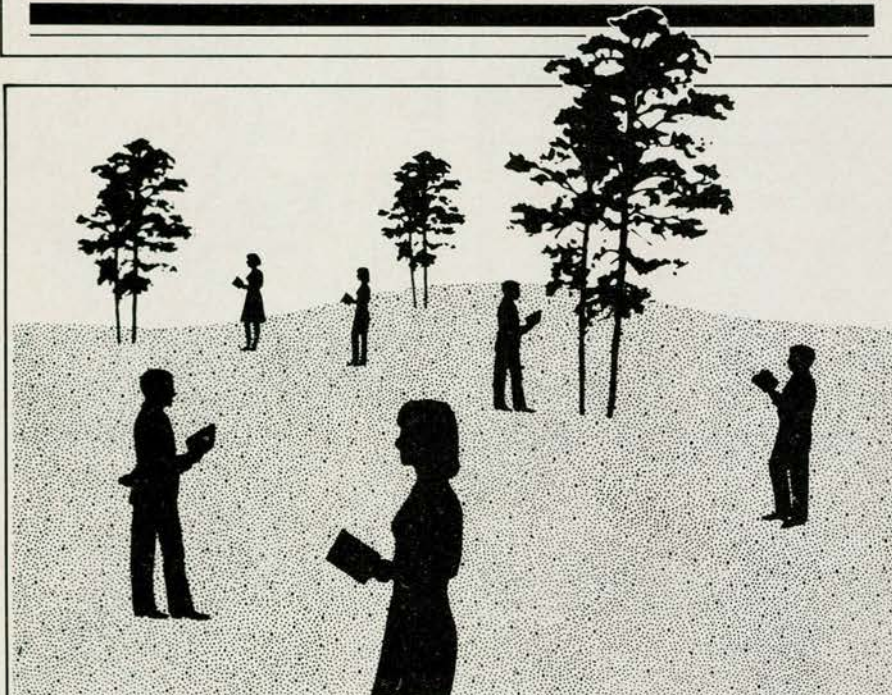
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Notebook



ILLUSTRATED BY GUY SCHUM

AQUINAS, CHURCHILL, AND THE BROTHERS GRIMM

In between five classes and 150 students a day, tests to compose and papers to correct, experiments to set up and video equipment to schedule, it's somehow hard to find a lot of time to devote to a reevaluation of the sources Gibbon used in *The Decline and Fall of the Roman Empire*, or to read Churchill's six-volume, first-hand account of our most terrible war and why it shouldn't have happened, or to trace the relationships between African poetry and the modern English tradition, or to track the theme of friendship as it appears throughout the classics, or to admire Orwell's and Djilas's search for a democratic humanism.

It is in recognition of the busy life that teachers live and their need for intellectual renewal that, two years ago, the National Endowment for the Humanities began its Summer Seminars for Secondary School Teachers. These intellectually lively retreats bring together teachers and top scholars in the field to read about, write about, reflect upon, and discuss the subjects they love. The broad range of topics offered is a showcase of the richness of the humanities.

Following the rave reviews of its 1983 and 1984 series, the NEH has announced another expansion of its popular program. Next summer, there will be fifty-nine seminars for 885 participants at forty-eight different institutions across the country. Teachers in grades seven through twelve are eligible. The fifteen individuals selected for each seminar will work under the direction of a distinguished teacher and active scholar. The seminars are from four to six weeks in length, and participating teachers receive a stipend of \$1,700 to \$2,350 depending on the length of their seminar. The stipend is to cover travel, books, and living expenses.

The deadline for applications is March 1, 1985. Teachers must send their applications to the specific seminar they are interested in attending. Posters and brochures detailing the topics, dates, and appropriate places to write to apply to the various seminars are currently being sent by NEH to all secondary schools in the country. Inquire at the administrative office at your school for further information.

OLDER AND BETTER

Another bicentennial is at hand. Nineteen eighty-seven will mark the 200th anniversary of the adoption of the U.S. Constitution by the Constitutional Convention of 1787. Commemorations and celebrations will begin in the Spring of 1985. (More on this in future issues of *American Educator*.)

To get the events off to a thoughtful start, the Honor Society of Phi Kappa Phi and the American Bar Association have cosponsored a special issue of the journal *National Forum*. The issue is written for a broad audience, with special consideration given to the needs of history and social studies classes in secondary schools. Seventeen articles examining American constitutionalism have been contributed by public leaders and scholars.

If you would like to help your students know more about the historical origins of the radical ideas embodied in the Constitution or to understand better the influence of this incredibly enduring document on contemporary life, write for a free copy of "Toward the Bicentennial of the Constitution." Send your request to: Presidential Classroom for Young Americans, Attn. Stacey Smith, 441 North Lee Street, Alexandria, VA 22314.



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ILLUSTRATED BY JOHN HENRY

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ONE FOR ALL AND ALL FOR ONE

Numerous studies have shown that cooperative learning methods have a positive effect on a broad range of social and psychological attitudes such as self-esteem, race relations, cooperation, and acceptance of handicapped students. But what is the effect of such group methods on student achievement? Do students learn more when they work together in small groups? The answer, says Johns Hopkins researcher Robert E. Slavin, who did an exhaustive review of the relevant studies, is that it depends.

In cooperative learning programs, students work together in small, heterogeneous groups in which they are expected to help one another learn. Within this overall format, conditions may vary widely. The most typical practice, used commonly in postsecondary education, employs individual rather than group rewards. Students study together but are graded solely on the basis of their own work. In other configurations, there are both group rewards and a group product. That is, the group produces a communal worksheet, test, or other display of performance. A group reward may also be based on individual learning. For example, the test scores of all individuals within a group may be tallied to get the group score.

Which of these combinations boosts student learning? According to Slavin, there are two key factors: (1) The rewards — recognition, grades, praise, or tangible items — must go to the group as a whole rather than to individuals within the group; and (2) There must be individual accountability, that is, every student's individual perform-



ance must be assessed in arriving at the group's performance.

Unless these two elements are present, group study per se has not been found to increase student achievement more than having students work separately. On the other hand, twenty-eight of the thirty-two field experiments that used this combination of factors found "significantly higher achievement for the cooperative groups than for the control groups."

Without group rewards and individual accountability, explains Slavin, "there is little reason for group members to care about their groupmates' learning." For example, when assessment and reward are based on a single group

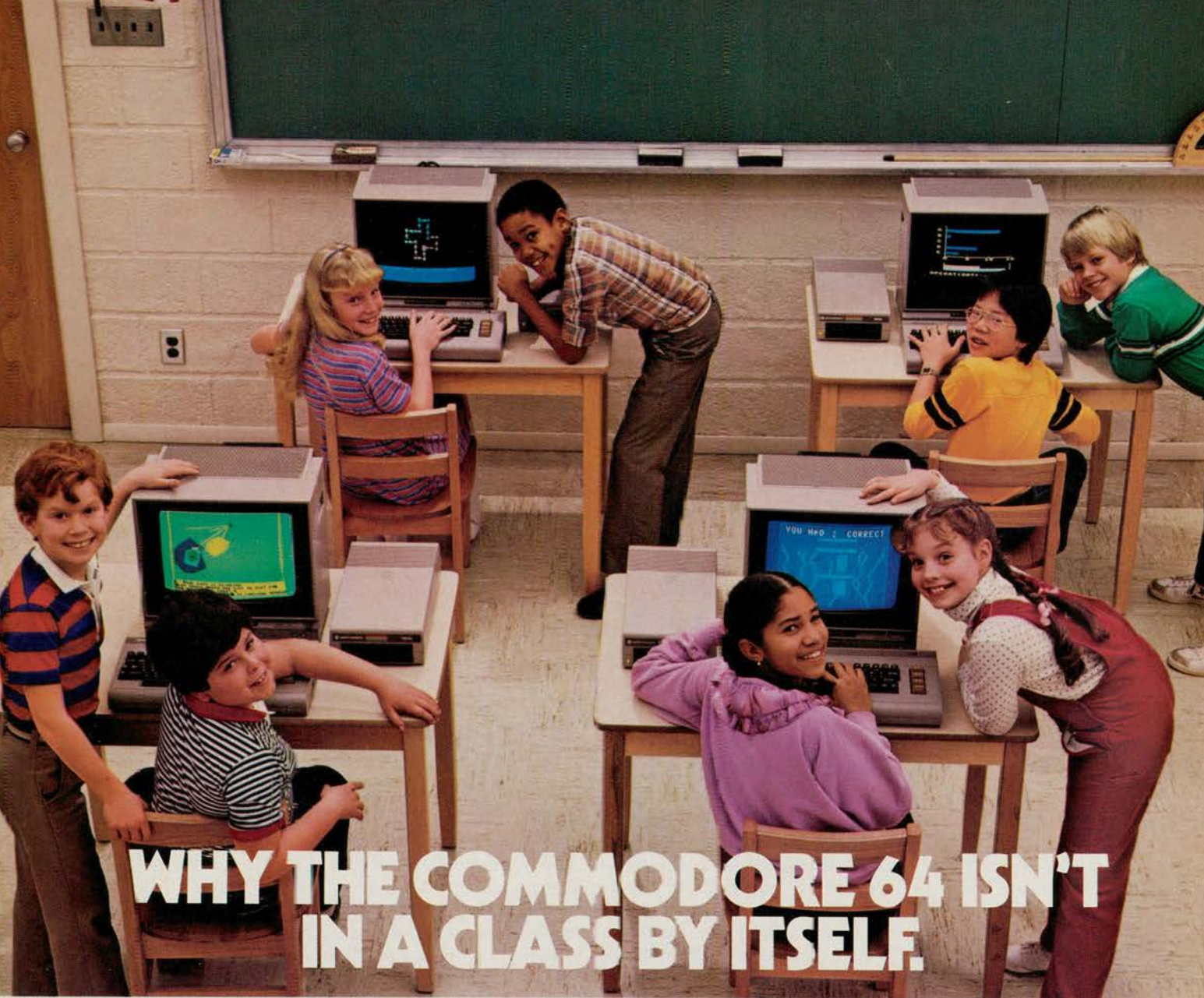
product, it is possible for one or two members of the group to do most or all of the work. Likewise, there is not sufficient incentive to involve the less-able members. For maximum learning, there must be a relationship between others' behaviors and one's own reward, and the performance of each group member must be "clearly visible and quantifiable to the other group members." When this occurs, peer pressure weighs in on the side of achievement: "[Students] are likely to pay attention to one another's learning efforts, to reinforce one another for outstanding learning performance, and to apply social disapproval to group members who are goldbricking or clowning instead of learning."

TEXTBOOK RESEARCH

In the wake of continuing criticism of the quality of school textbooks, the Harvard Graduate School of Education, under a grant from the Association of American Publishers, is beginning plans to establish a training program for editors and a center for textbook research. Graduate students who choose a concentration in educational publishing will study the concepts from reading research that can be applied to textbook preparation and will be given practical experience in developing, organizing, and analyzing instructional materials, including computer software.

The proposed Center for Research on Textbooks would provide an ongoing research base for the instructional program, disseminate research findings to schools and publishers, and, hopes Harvard, "attract doctoral students who will become the future researchers and scholars of instructional materials."

The Harvard reading faculty, under the direction of renowned reading specialist Jeanne Chall (See *American Educator*, Winter 1983), are currently engaged in research on readability measurement, computer programming for reading and language instruction, and the measurement and development of vocabulary.



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TEACHER ISOLATION: BARRIER TO PROFESSIONALISM

BY SUSAN J. ROSENHOLTZ AND SUSAN J. KYLE

LUGGING A cumbersome basket of papers and books through the still-empty school corridor, she crosses paths with an equally bleary-eyed colleague also making headway toward the office. "Morning," both mutter, more habitual than genuine. Pulling her mail from the "Ms. Brooks" slot and precariously balancing a cup of coffee and the latest office memos with her books and papers, she carefully negotiates the corridors to her classroom where she prepares to spend almost all of the next seven hours alone with thirty-one students. As usual, a thirty-five minute lunch break is sandwiched between morning and afternoon segments of the school day. Here in the faculty lounge, teachers gather both to grab a quick bite and to hear about social news or the teaching frustrations of others. Today Ms. Brooks had some grouching of her own to do. "Mary Ellen Griffith is driving me crazy. Do you know what she did?"

As she fills in the details, a sympathetic colleague nods. "Oh yea? Just wait 'til you get her brother, Michael — he's even worse!"

After the final dismissal bell, Ms. Brooks spends an hour or so cleaning work stations and preparing for an evening of paper correction in front of the T.V. On her way to the faculty parking area, she encounters two colleagues, themselves ready for departure. "Night,"

Susan J. Rosenholtz is an associate professor of education and sociology at Vanderbilt University, and in January will become associate professor of education at the University of Illinois at Champaign-Urbana. Susan J. Kyle is a doctoral student in education at Vanderbilt.

they mutter, more habitual than genuine. "See ya tomorrow."

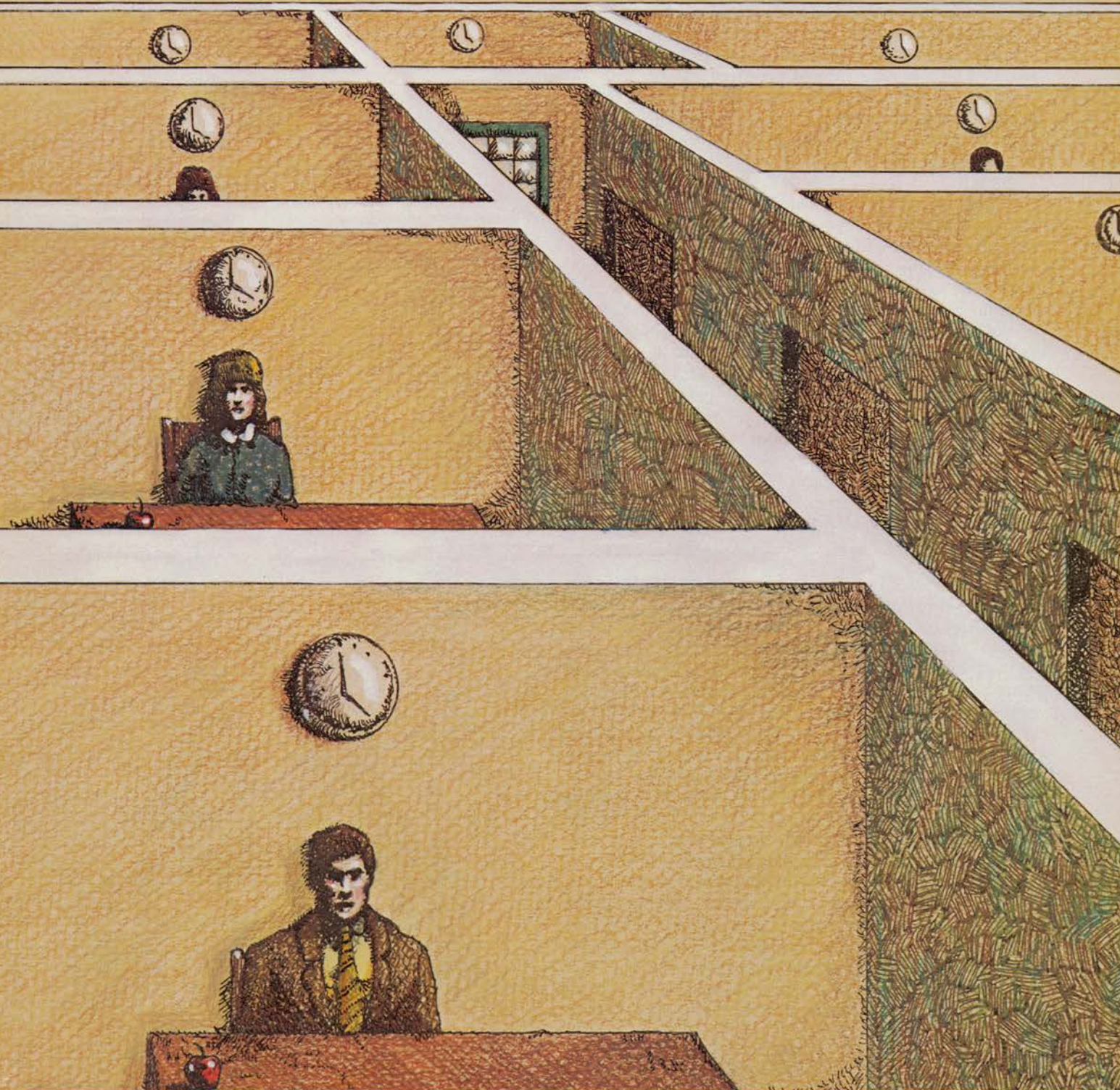
Typical of many teachers' work days, our Ms. Brooks and her colleagues suffer a common yet serious malady infecting many schools — teacher isolation. The problem appears in settings where teachers spend much of their time cut off from their co-workers, neither seeing nor hearing others teach. In fact, many teachers report no adult contact at all during their working day.

In this article, we explore the problems that arise from teachers' lack of professional contact with each other. The first section identifies several negative consequences of teacher isolation culled from research on teaching. Next, we outline alternative school organizations that do not isolate teachers one from the other. The final section draws attention to issues in professionalizing teaching.

THE EFFECTS OF TEACHER ISOLATION

TEACHER ISOLATION is more than just a physical separation. In isolated settings, there is a shared sense that teachers alone are responsible for running their classrooms, and they are accorded and accord to others full autonomy to do so.

The autonomy teachers come to expect is rooted almost entirely in their preservice preparation, a training that differs dramatically in form from other professions. Medical training, for example, stresses collegial ethics, where novices learn by interacting not only with their colleagues but with experienced professionals as well. "Rounds" are particularly poignant examples; here patients' problems are discussed in interaction among



medical students and between those same students and a skilled practitioner. Through daily patterns of collective consultations, medical students learn that the diagnosis and treatment of particularly difficult medical cases can best be accomplished in concert with one's colleagues.

In contrast, most teacher education programs unknowingly teach the professional ethic that it is wrong to intrude on a colleague's turf. Problems experienced by student teachers are rarely (if ever) collectively shared. Moreover, the teachers to whom these novices are assigned are themselves isolated and thus rarely model collegial behavior for student teachers to emulate.

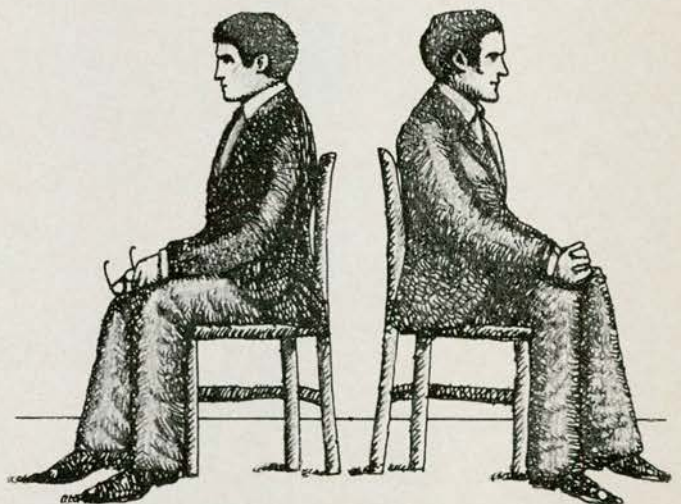
Teachers in most schools come to believe, therefore, that it is wrong to inflict suggestions for improvement upon each other, however well intentioned, and that it is proper to avoid any face-to-face criticism, however constructive. Isolated teachers appear instead to enact a live-and-let-live professional protocol.

In fact, there is the sense in isolated settings that to seek advice from other teachers is to admit, at least to some degree, a lack of teaching competence. The offering of unsolicited advice is equally poor etiquette, because it implies that the advisor possesses greater teaching competence. In other words, teachers do not generally approach each other with requests for, and offers of, assistance because those actions convey, undeservedly, an aura of superiority or inferiority. To avoid such implications, when teachers do talk with one another, like our Ms. Brooks, conversation often is maneuvered around professional issues, with talk about politics, sports, the latest trends and social situations interrupted only occasionally by the swapping of stories about hopelessly uncooperative students or parents. Since it is believed that teachers have both the duty and the right to establish their own classroom standards and procedures, professional protocol in isolated settings prohibits professional dialogue about the substance of teaching, even about the most routine matters. As a result, as the conversation becomes more social, the intellectual vigor of the faculty diminishes.

THE IMPORTANCE of professional dialogue cannot be overestimated. Without it, teachers have no avenues for using their limited time together to share ideas, discuss teaching problems and possible solutions and, in turn, develop better teaching skills. Without professional dialogue, teachers' skill acquisition and development is ironically banished to an off-campus location — hardly the place it belongs if teachers are to continue improving the instructional services delivered to students. First and foremost, then, teacher isolation is costly in terms of professional development and, ultimately, student learning.

The swapping of "war" stories, as our Ms. Brooks illustrates above, is sometimes the closest school faculties come to professional conversation. Yet it is not a helpful substitute for teacher problem solving. While teachers' "experience swapping" about problem parents or students produces sympathy and social support among faculty members, and may make teachers feel less alone, it does little to end teachers' isolation from professional knowledge. Experience swapping carries

There is the sense in isolated settings that to seek advice from other teachers is to admit, at least to some degree, a lack of teaching competence.



with it no remedies, no implications, no recommendations for change.

In fact, experience swapping sometimes produces the belief that there is nothing that can be done for and about problem students. Complaints about students that are unaccompanied by possible remedial action convey a lack of certainty that anything can or should be done. Indeed, the offer of only sympathy about coping with difficult students may reinforce teachers for acts of nonteaching. That is, the absence of hope often causes teachers to abdicate responsibility, with problem students sometimes relegated to the back of the classroom and given busy-work to prevent their potential disruption of other students. By supporting negative patterns of student-teacher interaction, then, experience swapping by colleagues may ultimately worsen an already difficult problem.

Second, without professional dialogue, there is little opportunity for teachers to develop common goals and means to attain them. Teaching goals become strikingly individualistic when teachers are forced to construct their own conception of professional excellence and a manner in which to attain it. In essence, what occurs are countless reinventions of the wheel. Successful teaching strategies become single, isolated triumphs, neither to be noted nor experienced by others. Lessons that prove unsuccessful for specific populations of students are doomed to endless repetition for want of better ideas that could be produced collectively and shared by teachers.

Third, without common objectives and methods, the instructional program within a school becomes fragmented into as many pieces as there are teachers. Skills students learn in freshman English may not be reinforced and built upon in sophomore English. Students in one fourth-grade classroom are introduced to geometry, while the other fourth-grade teacher introduces fractions instead. Now the fifth-grade teacher must begin again in both areas. In short, the costs of professional isolation, in terms of student learning, are high. Moreover, without shared teaching objectives, individual teachers will point their efforts toward improvement in entirely different directions, making staff development at the school level an almost impossible undertaking. The isolation thus produces a vicious circle: Without common goals, teachers have little reason to engage one another in professional dialogue, while without professional dialogue, there is little chance that common goals will emerge.

IF TEACHERS in isolated settings seldom engage in constructive dialogue about the nature of their work and do not collectively develop or pass along helpful strategies, how then do they learn to teach? Unfortunately, it is generally not through teacher training programs. Teaching novices in isolated settings instead learn to teach mostly by trial and error. Through on-the-job experience, they develop strategies, try them out, assess their effectiveness, and cast aside those least successful. In this laborious way, one builds a teaching repertoire. But teachers' individual growth and development depend heavily on their own ability to detect problems and find solutions. Although beginners confront common problems (such as classroom manage-

ment) that could be shared with and solved by more experienced colleagues, professional silence prevails. Tricks of the trade acquired through many years' experience seldom get passed along to new teaching recruits.

With professional reputations at stake, novices hesitate to make requests for help; similarly, more experienced teachers do not wish to offend junior colleagues by volunteering advice or assistance. Therefore, in their search for models of teaching excellence to guide them, beginners in isolated settings are more apt to fall back on memories of favorite teachers from their own student days than to seek models among their own contemporaries. The benefits of this approach are restricted by both memory spans and the limited perspective one brings to the role of student.

Beginning teachers often deal with their professional isolation by defecting from teaching. Two-thirds to three-fourths of teachers who leave the profession do so in their first four years, before they have invested large amounts of time and effort. And the reasons teachers cite for leaving result from their isolation: doubts about their ability to succeed with students, lack of opportunity for professional growth and development, conflict with principal or colleagues, and failure to deal effectively with student misbehavior.

For those who continue teaching, the story may have an equally disturbing ending. Many veteran teachers feel stuck or professionally stifled, with no new input for their professional development. As a matter of fact, there ceases to be a relationship between teachers' years of experience and their effectiveness with students after they've taught for five years. In other words, twenty-year veterans appear no more effective in helping students learn than those who have taught only seven years. This general tendency is again the result of isolation and the trial-and-error learning that isolation compels. It is entirely likely that after five years teachers have exhausted their own personal resources for experimentation. Indeed, some studies find that teachers reach their prime effectiveness after four or five years of teaching. But without fresh ideas and experimentation, not even the greatest teachers continue to grow professionally.

An equally strong and persuasive indictment of isolation can be mounted using studies on teacher absenteeism. Here we find that in isolated settings, schools experience far greater absenteeism among the faculty when compared to settings that do not isolate teachers. The commitment of teachers changes profoundly where working together with one's colleagues is both expected and required, and this added commitment operates in ways to reduce teacher absenteeism. But we are getting ahead of the story. Let us first explore more positive working conditions of teaching, how they arise, and the unique consequences that they bring.

COLLABORATIVE SETTINGS

ONCE IN her classroom, she hurriedly dumps her books and papers that represent unwavering commitment from the night before. If she pushes it, there's just enough time before the beginning bell to grab a cup of coffee and wrestle with a lingering problem from yesterday. Her rushed entrance to the faculty lounge

reveals four colleagues already convened in conference. At an appropriate lull and in response to a how-are-you inquiry, Ms. Brooks laments, "Mary Ellen Griffith is driving me crazy! Do you know what she did yesterday?" Her co-workers lean forward attentively as she describes the infraction.

"She did the same thing to me last year," another confesses, "But my will won out when I made her work with Julie Calloway — great student, you know, but still devilish enough to be popular."

"Think I'll try that. I've got Julie this year, too."

Lunch time, however, uncovers a new dimension to the problem. "How did you get Mary Ellen to work with Julie when they're in different reading groups?" Ms. Brooks asks her previously helpful colleague.

"Julie knows how to help Mary Ellen with her work," comes the reply. "I just let Julie tutor her. But I set some ground rules for the help, like. . . ."

Recommendations pipe up from another quarter. "That one doesn't work too well for me. When I let kids help each other, what works for me is to. . . ."

"Hmmm . . ." responds the first adviser. "I like that way better, too."

As the warning bell sounds, Ms. Brooks catches Julie at the corner of the playground. "Julie, will you do me a big favor?"

The above conversation differs dramatically from the earlier one. Whereas in isolated settings Ms. Brooks's complaint produced only sympathy for her problem, in the latter setting, Ms. Brooks garnered both social support *and* possible strategies to solve her problem.

In the most effective schools — schools where the learning of both teachers and students is greater — teachers collaborate. Requests for and offers of assistance are not inhibited by ideas about relative competence or the necessity of total autonomy. Instead of mere grouching, faculty interaction in effective schools centers on the work of teachers and ways to improve it. Whereas complaints about parents, students, and other teachers are the focal point of work-related conversation in other schools, professional dialogue in effective schools centers not so much on people as on problems. Many more teachers talk shop with each other in collaborative settings, and they shop-talk more often than they exchange social amenities such as recipes or recreational experiences. Indeed, in collaborative settings, teachers believe in the importance of continuous improvement and they view that improvement as a collective rather than solo undertaking. That is, teachers do not bring their skills up to par or excel beyond average expectations by individual initiative alone. Rather, there exists the belief that teachers become more effective instructionally through analysis, evaluation, and experimentation with their colleagues.

In the conversation above, our Ms. Brooks receives freely offered, unabashed advice from others whose opinions she has grown to value and trust. She leaves the faculty room with specific strategies to help her deal with a difficult student. Others who profit from the exchange (such as the initial advisor, for one) will also engage in greater classroom experimentation — precisely the kind of activity that produces instructional improvement.

MULTIPLE BENEFITS accrue to teachers in collaborative schools. Because collaborative conditions give rise to greater experimentation, and greater experimentation results in better teaching, the rewards of teaching are increased. Specifically, teachers who collaborate come to believe that difficult students are capable of learning and that they as teachers can reach these students. These beliefs prompt the search for, and the testing of, new teaching ideas. There is something particularly satisfying about reaching students who have been written off by less-diligent others. In other words, professional dialogue in collaborative schools makes teachers feel more certain about their teaching abilities. It inspires them to summon undauntedly the effort needed to procure teaching success. A primary benefit of collaborative work arrangements is that teachers earn the ultimate reward of their profession — students' growth and development.

A second benefit of collaborative arrangements follows quite naturally from the first. Because of increased professional rewards, collaborative schools experience less teacher defection and less teacher absenteeism than do schools that isolate teachers. Decisions to remain in teaching and to productively contribute are directly related to the rewards teachers receive. As long as the rewards of teaching outweigh the frustrations, individuals will choose to remain in the profession. Because collaborative exchange helps all teachers to improve continuously, the product of the exchange — student learning — provides the needed inducement to continue teaching.

Third, learning to teach and to teach better is far easier under collaborative settings than it is under isolated conditions. For beginning teachers, the advice and assistance tendered by highly skilled colleagues means that years of practical knowledge can be mastered in far less time, without the trauma and frustration of trial-and-error learning, and, therefore, with earlier and greater professional rewards. Novices' feelings of success combined with the knowledge that they belong to a cohesive group — a profession — account for their more infrequent defection from the work force.

For veteran teachers, collaborative settings offer a continual source of renewal, where one's ideas build upon another's, in essence, producing a better joint product than either could have come to individually and in shorter time. This observation is buttressed by studies showing that, unlike most schools, in collaborative settings there is a significant relationship between teachers' years of experience *in the school* and their success with student learning. That is, through work-related interaction over time, teachers accumulate a body of knowledge about successful teaching practices and sources of expertise from which to draw that knowledge. Good teachers who work with other good teachers become even better, and their skill acquisition and teaching rewards prompt the further development of collaborative bonds with teaching colleagues.

An additional source of professional pride and commitment for veteran teachers comes from the recognition of the value of their individual contributions. More experienced teachers defect from teaching not only because of the work conditions enumerated earlier, but

When teachers share experiences through problem solving, they build a body of professional knowledge that stands apart from the lay person's knowledge.

also because they receive no recognition for the valuable contributions they make. Mentoring, however, boosts veterans' morale as well as their skill acquisition in two important ways. For one thing, problem solving with one's colleagues builds cohesiveness and commitment, as teachers share responsibility for the school's successes and shortcomings. It is precisely this school commitment that permits teachers, over time, to develop the collegiality crucial to their own professional development. Second, the act of evaluating, deliberating, and modifying classroom strategies increases teachers' clarity about their instructional programs. This leads in the end to better teaching, as decisions become conscious choices instead of arbitrary actions.

PROFESSIONALIZING TEACHING

THE SIMPLE act of asking a colleague for advice and receiving it builds professionalism. It is also, from a sociological point of view, one of the characteristics that differentiates professionals from rank-and-file workers. An examination of some of these classical elements of professionalism demonstrates the centrality of the collaborative ethic:

1. Professionals share technical knowledge that is developed through professional training. When teachers share experiences through problem solving, they build a body of professional knowledge that stands apart from the lay person's knowledge. Just as attorneys and physicians have specialized knowledge and a technical language to transmit that knowledge, so, too, do teachers in collaborative settings.

2. Professionals determine what and how work is to be done and the goals of the work. Similar goals afford teachers a reason to share ideas about how and what work is to be done and how success is to be measured. If the school's fourth-grade teachers agree that it is important to introduce geometry, they then can explore ways to introduce it, evaluate their attempts, and develop alternatively successful strategies. In short, professionals control their work and the standards for that work.

3. Finally, professionals supervise, review, and evaluate their own colleagues with a view toward quality control. A professional protocol of live and let live, in which teachers are left adrift to survive primarily by their own wits, invites scrutiny by outsiders whenever quality appears to decline. Professionals police themselves in order to maintain control over the work that they do and the manner in which it is done. An underlying danger of teacher isolation is its risk of losing the professional discretion teachers require to function optimally. If teachers do not collaborate about their work, helping both themselves and the less able to add to their fund of teaching skills, the profession is endangered by public takeover and control, a phenomenon we appear to be witnessing in many state legislatures today.

Teachers today are accorded less autonomy and prestige than was true two decades ago. In fact, some teachers feel like mere jobholders, with heavy restraints and little support to perform their daily work. It is by no means inevitable, however, that the teacher work force undergo a permanent loss of control. Collaborative settings represent one step by teachers to reclaim the profession of teaching. □



TEXTBOOK HONESTY: THE CASE OF THE MISSING FUTURE

A REVIEW BY CHESTER E. FINN, JR.

Why Are They Lying to Our Children? by Herbert I. London (New York: Stein and Day, Inc., 1984).

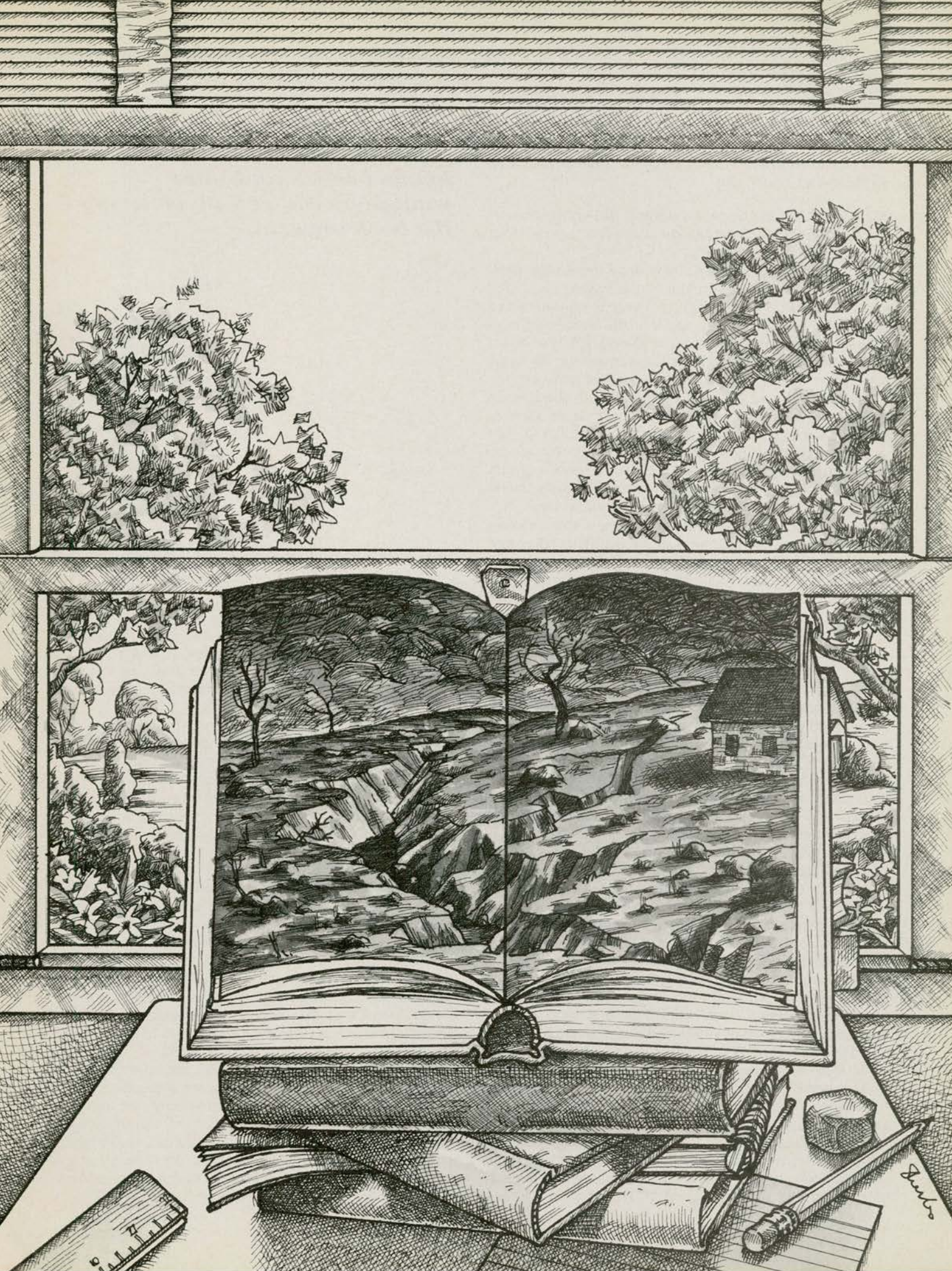
THE RESPONSIBLE educator faces no more difficult challenge than deciding how best to teach impressionable youngsters about matters that evoke uncertainty and controversy among adults.

Small children have notoriously concrete minds and scant tolerance for ambiguity. They look to adults for clear signals, definite answers, and reliable information. They often seem to inhabit a binary world in which things are right or wrong, good or bad, true or false. The primary school my own son and daughter attended would virtually suspend its regular classes on "United Nations Day" every autumn and devote most of that time to lectures, films, and other lessons about the United Nations. In the evening, the children would proudly report: "Daddy, today we learned about what a wonderful place the United Nations is and what good

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things it does." My wife and I would then try to explain that, in our view, not everything about the United Nations was swell, that while its agencies engaged in many valuable humanitarian functions it was also a place that gave Israel a very hard time, that it did not value political freedom as highly as we did, and that it tended to be less forgiving of the sins of the democracies than those of totalitarian regimes. "Daddy," the puzzled youngsters would ask, "does that mean the United Nations is bad?" And I would start all over again, attempting (with scant success, at least until they reached fifth grade or so) to convey the possibility that the United Nations embodies both good and evil, the highest aspirations of mankind as well as some of the sleazier practices to be found in the modern world. My son and daughter did not welcome — and for all practical purposes could not assimilate — that degree of ambiguity. They expected their parents — and their teachers — to impart simple truths, to show them a cosmos consisting of fixed stars.

The point, of course, is not my own opinion of the United Nations or of any other vexing contemporary issue. It is, rather, that once we move outside a few reasonably stable scientific and mathematical principles (and rules of grammar and simple historical chronologies), anyone who teaches young people finds himself dealing with matters about which "truth" may not be



Julius

knowable, about which opinions differ, and about which reasonable people may come to contrary conclusions on the basis of the same evidence. Although older students have a higher tolerance for ambiguity and greater capacity to handle uncertainty, they also look to their teachers for conclusions and answers and may be considerably frustrated by an "on the one hand, on the other" response.

FROM THE teacher's standpoint, the conscientious handling of such pedagogical situations poses four problems.

First, it may not be obvious when a topic slips from the realm of fact into the realm of uncertainty — or vice versa. The line is often blurred. There is no doubt that F.D.R. was responsible for most of the social and economic legislation we know as the "New Deal," but is that what really ended the Great Depression or, as some scholars contend, was the major cause of recovery the stimulus produced by American entry into the Second World War? Medical science may not know how to prevent cancer, or indeed even what causes it, but where there *are* significant correlations between exposure to certain substances and the incidence of certain kinds of cancer, should we not teach these as "facts" to youngsters whom we see smoking cigarettes?

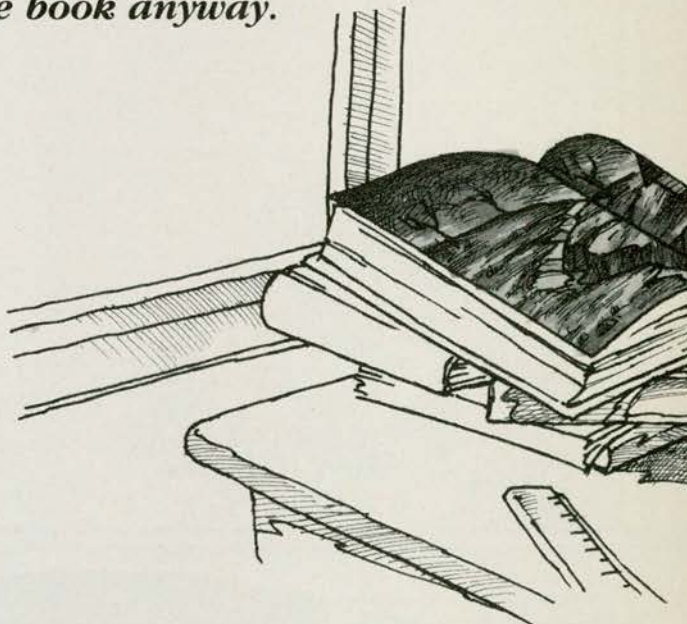
Second, when we indicate to students that matters are uncertain, that opinions differ, and that alternate interpretations are equally "legitimate," we court total relativism and may violate the obligation of educators (and other adults) to inculcate sound values in our students. It is one thing to tussle with the pros and cons of the United Nations and the ambiguities of genetic engineering; it is quite another to encourage open-mindedness when the subject is the Holocaust, child abuse, or Stalin's purge trials.

Third, particularly when dealing with contemporary controversies of a political or moral sort, most teachers have strong opinions of their own and may well be members of "interest groups," even activists on behalf of particular causes and policies. Ought they keep their views to themselves and be scrupulously "neutral" in the classroom? Is this genuinely feasible? Ought they propagandize their students, perhaps even try to recruit them to their causes? Or should they settle for a course of action that lies somewhere in between?

Fourth, are the textbooks and other materials available to teachers for instructional purposes adequate to the presentation of a balanced or multi-dimensional view? Or do the books themselves — books on which most teachers must rely for most lessons — draw one-sided conclusions, create controversy where there need not be any, or suggest certainty where a bit more tentativeness might be in order? Few teachers have the time or resources to develop all their own materials and are therefore captives, to greater or lesser degree, of those who write, publish, and select the textbooks for their schools or school systems.

All four of these problems deserve sustained and careful attention. Each has many dimensions and subtle nuances — moral, ethical, professional, practical. Few educators want to be accused of "indoctrinating" their students; few, however, are comfortable feigning complete neutrality about the great issues and controversies

If the textbook says that green is red or up is down, the teacher must waste precious time correcting it (assuming that he knows better), and some youngsters will end up believing the book anyway.



of past or present. Yet teachers and other responsible grown-ups must also ask themselves to what extent the perplexities, fears, passions, and anxieties of the adult world should be inflicted upon children — and in what manner, at what age, and for what reasons. "I never attempt to get children to share my beliefs or my prejudices," wrote the celebrated progressive educator A. S. Neill. "I would never consciously influence children to become pacifists, or vegetarians, or reformers, or anything else. I know that preaching cuts no ice with children. I put my trust in the power of freedom to fortify youth against sham, and against fanaticism, and against 'isms' of any kind."

I don't entirely agree with Neill. I want my children's teachers not only to describe the differences between democracy and totalitarianism, between honesty and treachery, between kindness and cruelty, but also to convey a clear preference for one over the other, setting forth good reasons — and deep conviction — to give muscle to their preferences. Yet I know this can easily slip into a form of indoctrination that I would not like. And I do not want children terrified by the quarrels and hatreds of adults at times when they should be acquiring basic skills and elementary knowledge.

These are tough issues, and they are important ones to which the education profession has in general paid insufficient attention. To my knowledge, we have no code of ethical conduct or professional standards from which teachers and other educators can derive guidance about how to approach controversial issues, about which disputes are suitable for classroom consideration, and about which can — and perhaps should — be



left outside the schoolhouse or deferred for more mature consideration. Individual educators develop and modify their own ground rules — I know one who has decided that no one under the age of eighteen should be exposed in school to anything that happened since 1945 — but the profession as a whole has been woefully inattentive to these matters.

Besides general codes, we would benefit from careful scrutiny of the way particular issues are presented in the textbooks on which most teachers must rely. For here is where the individual educator, however conscientious, is apt to wield the least influence and be hardest pressed to redress matters. If the textbook says that green is red or up is down, the teacher must waste precious time correcting it (assuming that he knows better), and some youngsters will end up believing the book anyway. Almost all of us tend to give greater credence to the printed page than to the oral presentation — and never more so than when the page is part of something called a “textbook,” a publishing category that (like encyclopedias and other reference works) is commonly assumed to guarantee accuracy and objectivity.

THE WHOLE process of textbook preparation and selection is getting closer scrutiny these days (see, for example, the three articles in the summer 1984 issue of *American Educator*) and properly so. But most contemporary criticism seems to concentrate on issues of intellectual rigor and cognitive challenge: Are the books “difficult” enough to give their readers a proper mental workout? Of course, there are also the ideological witch hunters of both left and right, who pore over school-

books in search of “bias” of one kind or another and who either excoriate or praise the books depending on whether the perceived bias conforms to the ideology of the reviewers. But so far as I know, few critics have been analyzing textbooks for general accuracy or veracity, and fewer still have set about to ascertain whether unresolved issues and unknowable facts are being treated as if they were settled.

Herbert I. London’s book is a welcome exception. Despite the provocative title, it is the report of an examination of sixty-three contemporary social studies textbooks in widespread use in American schools, an examination that sought to determine how these books handle perhaps the least knowable issue of all: What does the future hold? London’s inquiry was prompted, he recalls, by finding one of his children in tears — she had learned in school that “I don’t have a future” — and the other informing the family dinner table that “by eating ‘so much food’ we are depriving Cambodians of nutrition.” When he went off to visit his daughters’ schools to see why these thoughts had been planted there, he found one teacher simply reflecting what she had uncritically read in a gloomy textbook, the other quite adamant that “We do eat too much and others have too little. Isn’t that true?”

This led London — a dean at New York University and a researcher at the late Herman Kahn’s celebrated think tank, the Hudson Institute — to look at some of the textbooks himself and to borrow as well from the more systematic study of his colleague Jane Newitt. He organizes his findings under six topical headings: population and food; energy; minerals; environment; economic development; and outlook on the future. Under each of these, he presents quotations, examples, and lessons drawn from the books themselves and accompanies them with analyses and commentaries of his own.

In the “environment” chapter, for instance, London quotes this passage from a Harper & Row textbook:

Ugliness, junk, clutter and noise scream for attention. What solution is there to ‘too much’ of everything? . . . While billions were spent on the moon shot and the war in Vietnam, problems of public life mounted. The United States, like other industrial countries, was plagued by pollution of the water and the air . . . and by hideous graveyards of abandoned cars . . . Strong regulations protecting our national resources and controlling pollution may be needed to avert a possible ecological disaster. Yet industry sees such measures as being too restrictive.

In this and other volumes, London comments, one finds

the recurring question of whether the Earth will be habitable in the future . . . In these texts, industrial and governmental leaders are depicted as unenlightened individuals who think living space is unlimited and the environment is indestructible . . . These characterizations — of the degree of environmental damage and the insensitivity of our leaders — are grossly exaggerated and in most instances unsubstantiated . . . Economic and social trade-offs have to be considered. Improvements in the standard of living or the environment usually come at a price. We may not want to pay it, but there are consequences for inaction. The textbooks, however, often depict gains without risks, or suggest that risks are not worth taking regardless of the consequences . . . What the textbooks offer is a set of utopian goals: Eliminate pollution, leave the environment pure, and don’t tamper with nature. Yet this seemingly straightforward message . . . is strangely ambivalent since it also seeks to preserve the material wealth and standard of living that is ostensibly the cause of a great deal of the hated pollution . . . The teachers’ goal should be to cultivate

realists who know how to weigh evidence, examine problems, and know how to make informed judgments . . . Dealing with the environment is not a simple matter of right and wrong. That, however, is precisely what one generally finds in the presentation of these issues in the social studies textbooks . . .

In the chapter on "energy," London cites (among many examples) a Silver Burdett textbook entitled *This Is Our World*. Its author presents the issue of depleted natural resources in these words: "We ought not to say to ourselves how lucky we are to live in this age of machines, power, abundant food, and comfortable homes. Rather, we should ask how long our luck will last."

London finds this statement "extraordinary";

It is based on the assumption that our wealth and advantages are functions of luck. Luck, as we know, is capricious and transitory. To emphasize a throw of the dice is to subordinate personal effort and enterprise to sheer happenstance. Why should young people admire our system, or be willing to defend it, when it is not a creation of labor, effort, enterprise, and imagination? Why should anyone work hard to promote his or her own future if success is based on luck? . . . The implication of the textbook arguments . . . is that fossil fuels will soon disappear. Invariably authors who accept this gloomy prognosis question why we can't curb our appetites. . . . Yet very few writers recognize the quite reasonable possibility that there are products in the ground and in space whose value to us is unknown at the moment but that may well alleviate the 'depletion' of oil. Did anyone in the nineteenth century know there was uranium in the ground, that it had value, and that it was a source of energy?

THE RECURRENT conclusion of London's analysis is that many recent social studies textbooks are based upon a particular ideology that he terms "limits to growth," here borrowing the title of the famous 1972 report of the Club of Rome that proclaimed that, if current trends continue, "the limits to growth on this planet will be reached sometime within the next 100 years." Not only are the textbooks needlessly gloomy and depressing, London reports, but they also suffer from four large general faults.

First, they present as fact much that is at best speculation about what the future holds.

Second, they omit or downplay the progress of the last few decades. As counterpoint to their vision of a future in which population outstrips food supply, the world is crowded into less living space, population growth spirals out of control, mineral resources are exhausted, and Planet Earth becomes literally unlivable, London wonders why examples of positive developments such as the following are generally ignored:

- "World grain and food production per person from 1950 to 1982 shows a continuous increase."
- "The living space in the homes of the world's people has progressively increased over the past 40 years; in the United States, for example, in 1940, 20.2 percent of the households had 1.01 or more persons per room, but in 1982 less than 4 percent reached that level."
- "From the beginning of recorded history until about 1776, population growth was static. Only from the late eighteenth century until the mid-1960s was it on a steady upward slope; since 1965 the rate of growth has been declining at a substantial rate. For example, world population growth was 2.1 percent in 1965 and 1.7 percent in 1981."
- Primarily because of continual development of new technology that allows us to extract minerals that were



The recurrent conclusion of London's analysis is that many recent social studies textbooks are based upon a particular ideology that he terms 'limits to growth.'

too expensive or simply not able to be extracted before, "there has been a 4,000 percent increase in known mineral reserves [those that we have the know-how to obtain at reasonable cost] between 1950 and 1970 alone In fact, the costs of almost every natural resource have trended downward over the course of recorded history Moreover . . . we have learned to employ less of the raw materials [For example] a single communications satellite in space provides inter-continental telephone connections that would otherwise require thousands of tons of copper."

Third, their simplistic utopianism is intolerant of the complexities inherent in finding workable solutions. Inattentive to "trade offs," neglectful of gains that are bought at a price, the books are indignant about problems but silent about the feasibility and costs of solving them. Their call for an undefiled world is strangely oblivious to the need for the wealth that technology generates and without which no society can upgrade its standard of living, pay for solutions to its problems, or assist poorer nations to solve theirs.

Fourth, despite their implied insistence on certain policy changes, the textbooks are oddly fatalistic, suggesting to readers that man is essentially helpless before nature, that one's specific actions have little effect on one's future, that there is not much we can do to gain control over our destinies, save perhaps by abjuring consumption, economic activity and enterprise and thereby sentencing ourselves to a kind of impoverished subsistence agrarianism. The textbooks, in sum, virtually ignore the possibility of purposeful progress. If the future of humanity is fundamentally grim and essentially immune to the vigorous exercise of human will, we should be surprised neither that London's daughter was sobbing nor that many youngsters seek distractions, immediate pleasures, and pharmacological escapism.

THIS IS a lively, provocative, and worthwhile book, though it is not conventional social science. London searches out horrible examples (and finds a great many of them); he does not give us the documentation we would need to be sure how widespread these shortcomings are or whether some textbooks are substantially free from them. Thus, he has not produced any kind of manual or guide for those who must actually select books and teach from them. Rather, he has published an effective and eloquent "consciousness raiser" that sets forth some profound considerations that teachers and book selection committees should bear in mind and some egregious problems that the authors and publishers of social studies textbooks need to solve. Regardless of how an individual teacher resolves the large dilemma of "balance versus commitment" or the equally difficult decision about which adult worries to bring into the sixth-grade classroom, it is well to read the textbooks with a critical and knowing eye, to recognize that bona fide disputes may be presented as if they were settled facts, that reasonably secure truths may be presented as if they were matters of lively controversy, and that when we decide to bring heated current controversies into the curriculum, we'd best recognize that there is generally more than one side to them, but that we cannot always depend on textbooks to help our students gain this necessary awareness. □



CHANGED LIVES

A Twenty-Year Perspective on Early Education

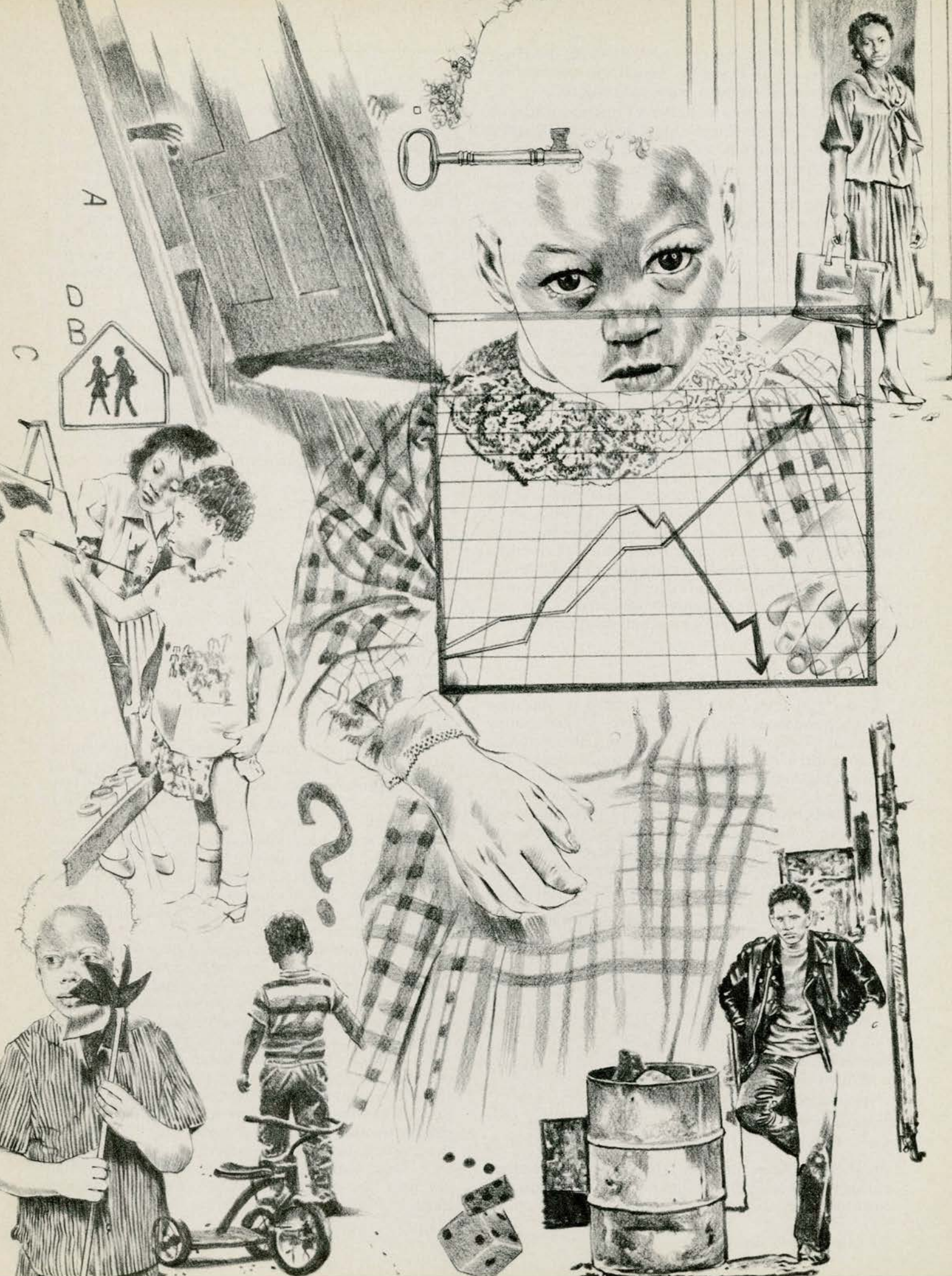
BY DAVID P. WEIKART

THE IDEA of longitudinal research may not seem very exciting to nonresearchers: year after year pursuing a dusty round of data collection, verification, retrieval, and analysis. Twenty years of such effort could lead to outcomes of little interest to the public and dear only to the heart of a researcher. And yet, maybe not. Over the last twenty years, those of us involved in the Perry Preschool study have watched 123 young children grow from toddlers to adolescents to young adults. It has been fascinating and sometimes painful to watch their lives unfold to age nineteen. Now we have vital information to share about what we have learned from the Perry Preschool study of economically disadvantaged children — information about how young people grow and what we as educators can do to help prevent some of the major social problems our society experiences. The outcomes of this landmark study, recently published under the title *Changed Lives*, are proof of the value of high-quality early education and are a tribute to teachers and the power of good programs and schools.

David P. Weikart is president of the High/Scope Educational Research Foundation and principal investigator of the Perry Preschool study. Changed Lives: The Effects of the Perry Preschool Program on Youths Through Age 19 can be ordered from High/Scope Press, 600 N. River Street, Ypsilanti, MI 48197. \$15 prepaid.

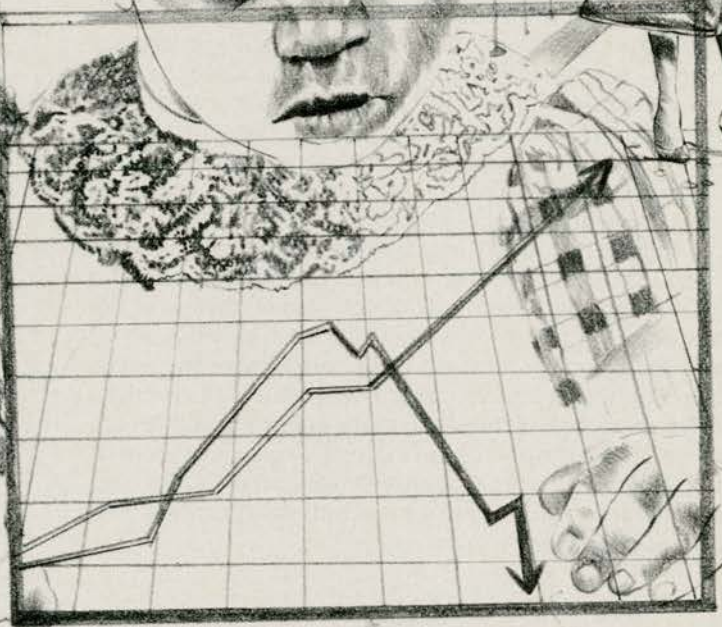
The Perry Preschool study is the longest and most extensive evaluation of early childhood education ever undertaken. It is also distinguished by the fact that it adhered to the strictest standards of social science research.

HOW DID the project come about? In 1960, Gene Beatty, Pete Kingston, and John Salcau, school principals in Ypsilanti, Michigan, met with me and other special services staff of the school district to discuss the achievement problems of low-aptitude youngsters who came from economically impoverished homes. As a result of these discussions, Gene Beatty, principal of Perry Elementary School, offered his building and school attendance area for a preschool experiment to see if early childhood education might improve the school performance of economically disadvantaged youngsters. Consequently, I and my colleagues developed the Ypsilanti Perry Preschool project, in which, over a five-year period, we randomly assigned fifty-eight youngsters from disadvantaged homes to a school-based preschool program and sixty-five of their matched peers to a no-preschool group. The fact that the study employed random assignment with no volunteers or referrals provides a scientifically valid basis for our findings. The preschool program offered children twelve and one-half hours of schooling over five mornings each week and one weekly ninety-minute home teaching



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B



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visit to the mother and the child. In 1970, the High/Scope Educational Research Foundation assumed responsibility for the operation of the project.

The curriculum used in the Perry Preschool project is now known as the High/Scope Cognitively Oriented Preschool Curriculum, an approach based loosely on the developmental theories of the Swiss psychologist Jean Piaget. In this curriculum, each child constructs his or her own learning experience within a classroom environment designed by the teaching staff to accommodate such activity. The core of the curriculum requires that each child make a plan that is recorded by the teacher. The youngster is then responsible for carrying out the plan during an hour-long work time and for evaluating it at the conclusion of the work period. This plan-do-review cycle develops children's initiative, sense of responsibility, problem-solving ability, social cooperation, and individual competence in a variety of psychomotor and intellectual skills. The curriculum model encourages teachers to focus on developmental principles and to build on children's existing strengths and accomplishments. The curriculum is not a pre-academic orientation program designed to provide early practice to the child in skills normally mastered at the kindergarten or first-grade level. While the program includes such activities as story dictation and focuses on language development, it is designed to meet the needs of preschoolers and is not a transplanted curriculum drawn from the early elementary school grade levels. (The High/Scope preschool manual, *Young Children in Action*, describes the Cognitively Oriented Curriculum and is widely used in college and university child development programs.)

THE BASIC question under investigation in the study is, "Can high-quality early childhood education make a permanent impact on the lives of participating children?" Following our 123 economically disadvantaged children to age nineteen, we found a clear and convincing answer to that question. High-quality early childhood education does make a difference in how successful children are in school, how they function in the community, and how they participate in the world of work. Some of the key findings can be summarized as follows, when those who attended preschool are contrasted with those who did not:

	Preschool %	No Preschool %
Completed high school	67	49
Attended college or job-training programs	38	21
Classified as mentally retarded	15	35
Hold jobs	50	32
Support themselves by their own or their spouse's earnings	45	25
More satisfied with work	42	26
Arrested for criminal acts	31	51
On public assistance	18	32

Another significant outcome is that these gains result in substantial economic benefits for the community. An investment in a one-year preschool program returns

FROM THE CASE STUDIES . . .

"If I could, I would change a whole lot. I'd change everybody's personality and mine too. If I could change back the hands of time, I'd become a more better person than I am already, you know, 'cause there are a lot of things I want in life and I came at it the wrong way. . . . For one thing, when I was coming up in school, I should have knew what I wanted to do because now I kind of regret being bad in school and hanging out. I still ain't accomplished what I want in life. . . . I wanted to become somebody and I haven't become that yet."

—YVONNE BARNES,
age 19, no preschool

"The environment . . . the parents and the neighbors and the friends, to me, if they are right, if they want you to do right, then you should do all right. And I would say really it's the person that makes the difference. . . . When you get to a point where you're out of high school, you got to wonder what you want to do. If you want to do it; you can set your mind to do it, you can do it."

—JERRY ANDREWS,
age 19, preschool participant

more than 11 percent (after adjusting for inflation). To put it another way, such an initial rate of return makes the investment in early childhood education for disadvantaged children competitive with investments in high-technology opportunities.

The findings are most encouraging. As *The New York Times* editorialized: "It has different names — Project Head Start, developmental day care, nursery school — but the idea is the same: high-quality preschool education. And it works."

Why is early education such a powerful preventive approach? Several stages of development converge to make the preschool age an opportune time for intervention. Physically, the young child has matured to the point where he or she has achieved both fine- and gross-motor coordination and is able to move about easily and freely. Mentally, the child has developed basic language capabilities and can use objects for self-chosen purposes. In the terms of Jean Piaget, the child has shifted from sensory-motor functioning to preoperational capacity.

Socially, the child is able to move away from familiar adults and social contexts into new settings. The fear of strangers, so common earlier, is gone, and the youngster welcomes relations with new peers and adults.

When we look at the basic accomplishments of early education, what stands out is that the child develops new competencies related to emerging social and physical skills and intellectual thought. Armed with these new competencies, the child learns to relate to new adults who respond to his or her performance very differently from the family. In short, the child learns to demonstrate new abilities in new settings and to trust new adults and peers enough to display these skills willingly. The child's willingness to try new things and develop new competencies is the seed that is trans-

Early success is linked grade by grade, year by year, into young adulthood; each stage leads to a better performance at the next.



formed into later school and life success. Early success is linked grade by grade, year by year, into young adulthood; each stage leads to a better performance at the next. These steps are documented by the research. It is, as the old folk adage has it, "As the twig is bent, so grows the tree."

THE STUDY indicates what has been done in a project offering a high-quality education program, but not all early education programs are of such quality. Improving them is a major task of educators. As with elementary and secondary school programs, early education programs must meet basic standards. For preschools, those standards proposed by the National Association for the Education of Young Children are the most comprehensive. To be of high quality, a program must employ a well-developed and validated curriculum such as that used by High/Scope, a system of supervision and ongoing inservice training, a cooperative team of adults who plan carefully for each day, an ongoing evaluation system, and a strong parent involvement program. These elements are neither easy to effect nor cheap to maintain. Yet the advantages of high-quality programs far outweigh the effort and cost of providing them.

The Perry Preschool findings have wide-ranging implications. They indicate that high-quality early childhood education can have a positive, long-term effect on the lives of participating children. Their early educational success leads to later school success, higher employment rates, and fewer social problems, such as those associated with crime and welfare dependence. While we can look at these outcomes dispassionately in terms of statistics, it only takes a moment to switch perspectives and see them in more personal terms. In our case studies, Jerry Andrews's "can-do" attitude leads to a very different life from Yvonne Barnes's "if-only" regrets. Early education can change individuals and help them realize their innate potential. But the Perry Preschool study's findings show more than good outcomes for individuals. They also indicate that communities can expect substantial improvement in the quality of community life. An effective program can help reduce street crime, limit the number of teenage pregnancies, and bring welfare dependency down to a more manageable level. Further, an important improvement can be made in the available work force because of increased job satisfaction, better educational attainment, and improved job-holding ability.

There is another crucial implication to consider: the financial return to the taxpayer. While the exact financial benefits are yet to be fully determined, for they are understated at this time, it is clear that public investment is returned in a very tangible way. It is cheaper to provide early education as prevention than to pay for more costly social remediation later on. The study has tracked the users of these remediation services and finds that the public pays substantially more later in providing such services for those to whom early education was not offered. Thus, we find a social program — early education for disadvantaged children — that offers major benefits to all involved: the child, the community, and the taxpayer.

(Continued on page 43)

THE UNVARNISHED, GOSPEL TRUTH ABOUT WRITING IN SCHOOL

BY JAMES HOWARD

I HAVE YET to meet the teacher who contends seriously that it doesn't matter whether students write. Reading and writing, both, are functions of literacy — the ultimate basic — and most teachers would reject out of hand the notion that writing doesn't matter. They deplore the fact that poor reading ability often prevents students from learning the subjects they teach and concede that if their students were better writers, they would assign more writing.

At the same time, I have also to meet the teacher who greets with enthusiasm the suggestion that writing become a regular practice in her class, or his. I have the definite impression, moreover, that administrative decrees requiring teachers to give writing assignments generate more heat than light — more reluctant conformity, that is, than eager cooperation. Former Education Commissioner Harold Howe sized up the situation last spring when he told the Education Writers Association that “teachers hesitate to assign writing because correcting it carefully at the rate of five minutes to each of 150 papers takes twelve hours of intensive work.”

The irony is that when teachers *do* make writing a

For many years a classroom teacher and headmaster, James Howard is now an education writer and writing consultant. He is the former editor of Basic Education, co-author of Empty Pages: A Search for Writing Competence in School and Society, and author of Writing to Learn.

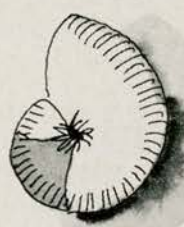
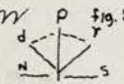
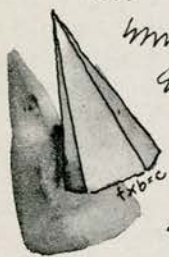
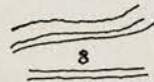
regular practice, their students not only become better writers, they become better learners. In the bargain, the teachers become better teachers, whatever their subjects — more sharply focused, more confident, more effective. And they don't spend anything like twelve intensive hours correcting a batch of papers.

That's the unvarnished, gospel truth.

THERE WAS a time when students virtually wrote their way through school and college. That was before multiple-choice testing and “paper-and-pencil activities,” following a version of Gresham's Law, drove writing out of the curriculum. Teachers assigned writing and students wrote, routinely. The promotion of girls and boys from grade to grade, their graduation from high school, their admission to and progress through college, all such rites of passage depended largely on the sentences and paragraphs they put together in compositions and reports, on tests and examinations.

In those days not quite beyond recall, I was a callow, young teacher of history. Following the example of senior colleagues, I gave my classes writing assignments: quizzes and tests with “essay questions,” occasional book reports, research papers. And I followed their example when it came to correcting and grading. For the mere mention of appropriate “history,” I gave them full credit, whether there was any evidence of

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their understanding; and probably because I didn't know what else to do with their writing, I conscientiously corrected all their mistakes in "English." Correcting took an unconscionable amount of time, but it must have done something for my ego.

One weekend, when I had forsaken everything and everyone else to confront a massive accumulation of papers, I had the first of two revelations. Red penciling my way through the third or fourth set, I realized for the first time that if what students were writing represented what they were learning under my tuition, something was seriously the matter. It wasn't their mistakes in English that shocked me; it was the fact that much of their writing simply made no sense.

I didn't stop teaching history and begin teaching English, but I determined that my students' writing would be at least intelligible. Disregarding their mistakes in spelling, grammar, and the rest of it, I pressed them to write in coherent, complete statements, insofar as possible using their own words. I pressed them, in short, to make sense out of the history I was trying to teach them.

For weeks, that was the only criterion I used to judge their written work, and their writing did become more intelligible. They began to choose words with some care and to make statements that were complete. Their statements gained coherence; and although their spelling and grammar did not miraculously improve, mistakes were more readily correctable because the students' new coherence made mistakes easier for them to recognize and understand.

Then I had the second revelation. It became apparent that, for the first time, my charges knew what they were talking about when they used terms like "absolute monarchy," "balance of power," or "mercantilism" in class discussion. And because they were beginning to know what they were talking about, they were more interesting to teach and more interested in learning. Clearly, there was a connection between their writing and their motivation to learn, between their writing and their knowing.

THE RELATIONSHIP of writing to learning and knowing is an intimate one. Learning is the process by which one works through information and ideas so as to understand them, to make sense of them. Writing is the process by which one works through ideas and information to put them together — compose them — so as to carry out a particular assignment or solve a problem.

Intrinsic to this writing or composing process are many if not most of the "thinking skills" that have recently come to claim so much attention. Some writing, of course, is little or nothing more than transcription — the notes teachers commonly give students to take down, for instance, or findings of the "research" students in text and reference books. Any writing that requires students to find their own way and go it alone, however, calls for critical thinking, decision making, problem solving, and more.

Even the simple narratives elementary school pupils write take some of these "higher-order skills." Children have to gather information — to recall, or make up, events and characters. They have to make decisions, to choose the words that best tell what happens, and de-

cide how to put the words together into statements. And they have to solve the problem of moving their characters plausibly from event to event, bringing them at last to "The End."

Never suppose that the cute little stories children write spring full blown from their cute little heads. Children think when they write. And writing puts adolescents in junior and senior high school in the way of thinking and learning as no other school activity can. Arthur Applebee made the point in *Writing in the Secondary School: English and the Content Areas*: "It is only when students begin to write on their own that the implications of new knowledge begin to be worked through and that they really come to know the material."

In order for writing to be an effective instructional practice, teachers and students must accept it as — and expect it to be — a *regular* practice. Regularity implies frequency, but not necessarily a lot of writing. A paragraph two or three times a week, a few sentences every day — that much writing does more to advance teaching and learning from day to day than a once-a-year, twenty-page term paper with footnotes, bibliography, and all the trimmings.

This above all: Writing in school must be worthwhile, worth the students' while and worth their teacher's while. If it is not both, it is a waste of precious time.

Writing is worthwhile when it helps students learn something they need to know. For example, because they need to have some basic understanding of the scientific method, it is worth the while of junior high students to explain the difference between an observation and an inference. In a senior history class, it is worth students' while to show the part slavery played in bringing on the Civil War, because they need to know how social, economic, and political developments interact.

Writing doesn't have to be exciting, or even fun. When students recognize that assignments are calculated to help them learn something they need to know in order to make the grade, they write willingly, and they learn. And whatever time the assignments cause teachers to spend will be worth their while, because when students write on their own, they "really come to know."

HOW MUCH time *do* teachers spend? And what *about* correcting?

Making worthwhile writing assignments is not a simple matter of diction. In order to frame a good question, one has to decide what in a day's work, say, or a week's, is most important for students to learn. That decision is seldom easy to make, but it puts teaching in sharp focus and enables one to frame questions or pose problems that will promote or confirm learning. It takes imagination and persistence, as well as trial and error to develop the skill of making assignments. Teachers are sensible when they expect to err.

Once they gain the expertise, however, teachers may expect to spend no more time than they ordinarily take for careful planning and preparation, and it takes little enough time for students to do an assignment; in class, seldom more than fifteen minutes, occasionally as much as an entire class period. If the writing promotes or

Red penciling my way through the third or fourth set of papers, I realized for the first time that if what students were writing represented what they were learning under my tuition, something was seriously the matter.

confirms important learning, the time can hardly be considered wasted.

Correcting and correctness are separate and equally sticky issues.

Correctness is undeniably important. Students need to learn to write correct, standard English. When they are learning science and literature, history and social studies, however — and yes, language, mathematics, business, and technical subjects, the arts, and home economics — making sense takes precedence over being correct.

Teaching students to write correctly is a responsibility of teachers of language arts and English. That is, or should be, part of their particular expertise. And while teachers of other subjects have no business undermining the efforts of colleagues in English and language arts, it is not a primary responsibility of theirs to correct writing.

When it comes to correcting, they ought to hold out for complete sentences, because in order to make sense, a statement must have both subject and predicate, as well as clear indications of the beginning and the end. They may want to hold out for the correct spelling of important words peculiar to the subjects they teach — like “divisor” and “dividend” or “impressionism.” When opportunity arises, a teacher of any subject ought to acknowledge other mistakes, especially when it is a mistake in English that obscures the sense a student is trying to make. If teachers spend hours of intensive work correcting, however, more than likely they will shortchange the responsibility that is theirs and theirs alone.*

That responsibility is to help students make sense of history, science, math, or whatever. With papers to read, teachers meet the responsibility by deciding whether the papers are in fact satisfactory executions of an assignment. If grades are necessary for the record, they can be derived from the decisions. Graded or not, whenever a student’s writing is more than satisfactory, or less, the teacher must be able to say why and do something about it — commend or correct the writer or, it may be, amend the teaching — accordingly.

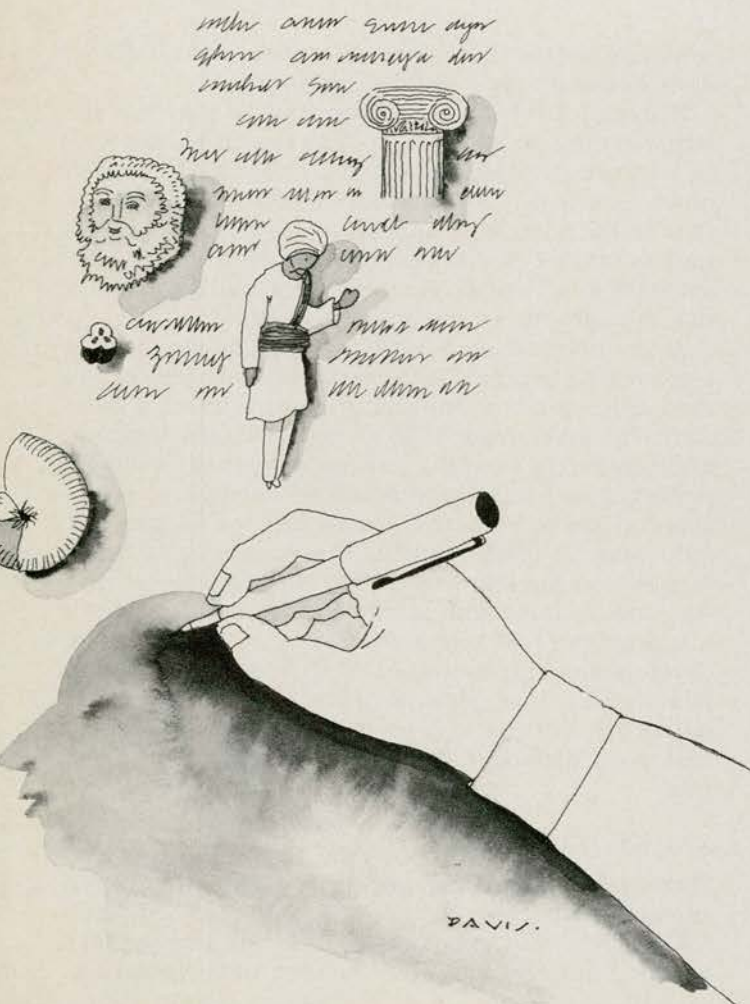
Sometimes the decisions are a snap to make and take no more time than checking responses to a true-false exercise. At other times, decisions follow long agonies of indecision. It is not always easy to distinguish between the satisfactory and the more than satisfactory; it is almost always difficult to acknowledge that a student’s paper is less than satisfactory when the distinction means failure. Notwithstanding, making such decisions is a central responsibility of teaching.

SOME SUBJECTS appear to lend themselves better to writing than others, but writing belongs in just about every subject — academic, technical, commercial — of the school curriculum.

Two years ago, in a demonstration project in which only the traditional academic subjects were represented, mathematics teachers were among the most

(Continued on page 43)

*These rules of thumb for correcting apply to papers done in class, which students write under the pressure of time and with the inevitable distractions of a classroom full of students. Teachers of writing would equate such papers with first drafts.



THE USES OF ERROR

BY ANGELICA BRAESTRUP

The following scenario will be familiar to most teachers: When students are handed back their papers or tests, they immediately turn to their grade. Then the class divides into two groups: Those who received poor grades surreptitiously slip their exams into their bookbags or the back of their notebooks, whereas the good students stand where they are and start to read the teacher's comments in the margins and re-read what they themselves wrote. I believe this scene illustrates a primary distinguishing mark of the good student, namely, he knows how to learn from his errors.

In my years of teaching students who find improvement difficult, I have asked the poor students what they tell themselves when they receive poor grades. Their strategies for doing better next time essentially come down to two: Study "harder" (which usually means study longer) and study longer. Conversely, these students are equally at a loss to explain when they occasionally do well, ascribing the windfall grade simply to good fortune rather than to anything they could consciously work to replicate. Thus, it would appear that aside from the factor of time, many poor students share a view that grades are fundamentally beyond their control. This in turn undermines confidence and makes procrastination one major strategy for defending them-

Angelica Braestrup is an educational consultant who specializes in intervention education. She teaches analytical reading and reasoning, with specific emphasis on preparing students for national undergraduate, postgraduate, and professional school standardized tests.

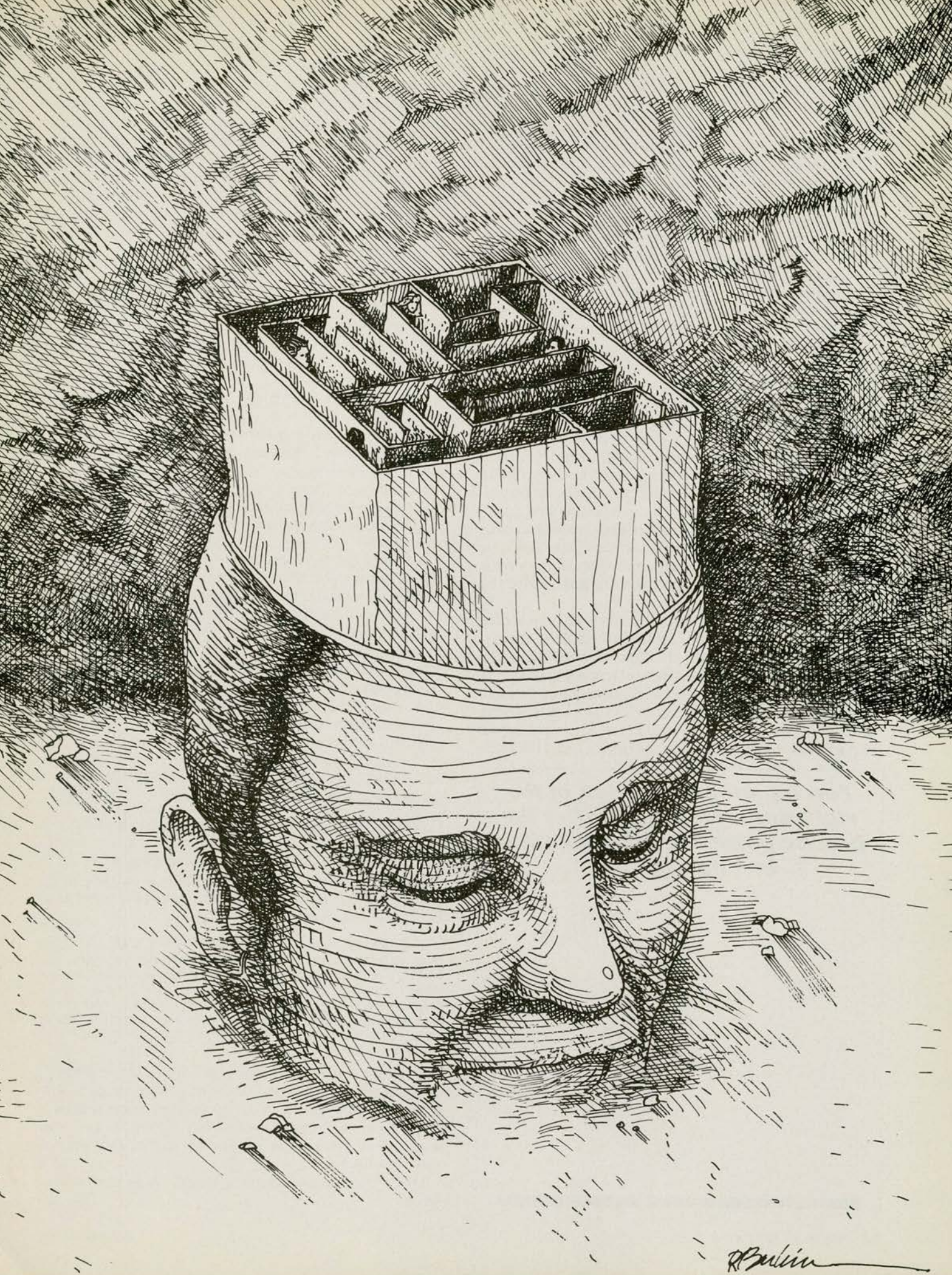
selves against the irrational buffets of fate: "I would have done better if only I had had more time."

Because of this insistence on time as the essential factor in their poor grades, I often start my classes with an untimed exercise and the instruction to do only so much as can be done absolutely correctly. With the time factor removed, it quickly becomes apparent that time is not the primary problem. Indeed, as I tell my students, if we worked for time, we would only ensure that they get the wrong answers faster.

As an intervention education specialist for the past eight years, I have learned again what was made clear in the Garden of Eden: One salient factor in learning is the ability to profit from your errors. Teachers seriously interested in helping students improve their academic performance would do well to teach them some strategies for the constructive use of error. I suggest the following: 1) teach students the difference between recognition and knowing; 2) give students the permission and confidence to acknowledge when they aren't learning from text simply by reading it and help them develop alternate strategies; 3) show students how to identify individual patterns of error and how to break out of the pattern; 4) teach students how to apply analogous thinking or the use of examples to re-create a rule.

KNOWING VS. RECOGNITION

Perhaps I can best illustrate the distinction between knowing and recognition by using the T.V. program "M*A*S*H*," which in our family one could say we have watched rather too often. When we turn on the T.V.



now, everyone knows within the first few minutes whether he/she has seen that episode before; but if we were to turn off the T.V., no one could relate what happens to the end. That is, we recognize, but we do not know.

Student failure to distinguish between recognition and knowing interferes with learning in a variety of ways. For example, many poor students read and underline their textbooks on the night the homework is due with a promise to themselves that they will study the material over the weekend when they have more time. Unfortunately, most students do not know that we learn best the first time through a text. One reason for this is that in subsequent readings recognition interferes. The way the lines look on the page, the illustrations, even the student's own underlinings contribute to his sense that he knows the material when, in fact, he only recognizes it.

A student only knows the text when he can close the book and relate back the essentials of what he has read. Since this is best and most easily accomplished with fresh material, the student would have done better to put off the initial reading until he had the time to learn it the first time through. Moreover, related to the problem and indeed implicit in it is a misconception about review, which too often means "learn it for the first time." That is, many students separate reading from learning: They have done their homework if they have read the required pages, but real learning, disguised under the word review, is often postponed until just before the next examination.

Similarly, recognition can interfere with learning when a student asks the teacher to explain again a problem he failed to learn the first time through. The teacher takes chalk in hand, the way teachers always do, and proceeds to write on the blackboard, going through his explanation slowly and carefully once again, trying to make his explanation crystal clear. The student, on his part, sees the same lines on the board, hears the same

Forcing an explanation of the right answer often clarifies the precise point where a student is having difficulty.

words the professor used before, albeit more slowly this time, recognizes the explanation, and happily says, "Oh yes, I knew that. . . ." But once again, the chances are that he has confused recognition with knowing, for if he "knew" it, he would have gotten it right the first time.

When the teacher has explained a problem, then, the student needs to be given the time to explain it back, first the problem at hand and then a similar problem to ensure not just that the answer is correct but that the reasoning is also correct. The reasoning constitutes the pattern that will allow the student to do similar problems correctly.

As a corollary, one less obvious perhaps, I do not think it is a good idea to let a student explain his wrong reasoning. Allowing the student to explain his wrong reasoning simply reinforces the wrong pattern. Instead, the teacher might give the student the correct answer and persuade him to explain why it is right.

When a teacher does this, certain truths become apparent: First, students, along with the rest of us, resist relinquishing their wrong answers; second, forcing an explanation of the right answer often clarifies the precise point where a student is having difficulty; and third, when the student can finally explain why the right answer is right, there is a light-bulb effect as he suddenly does indeed really understand. However, unless the student reinforces the new understanding over time, it will vanish.

A final suggestion on the uses of *recognition v. knowing*: When a student fails a test, say on enzymes, he will usually try to learn about enzymes again from the same book he used the first time. There are two reasons why this is a poor idea: In the first place, the initial reading, for whatever reason, did not "take"; secondly, everything looks familiar and so, once again, the recognition faculty interferes with "new" learning. Instead, the student should be encouraged to go to the library, find another, unfamiliar textbook, look up the chapter on enzymes in the index, and learn from this "new" text.

LEARNING HOW TO ADMIT IT WHEN YOU AREN'T 'GETTING IT'

Learning something the first time through a text is not as simple as it sounds. The student needs to know how to recognize when he isn't comprehending what he is reading and what to do about it. This is hardest to do when the text appears easy to read word for word as in the following example:

If a membrane separates two compartments both containing pure water, the flow of water in both directions is equal, and neither compartment changes volume. If the membrane does not allow the passage of sugar molecules, and half the water molecules on one side are replaced with sugar, the flow of water from that side to the other is 1/2 of its former rate, while the flow of water in the contrary direction is unchanged. The result is that water flows from the pure water side . . . etc.

This material was taken from class notes handed out in medical school. The good student will know, probably from about the middle of the second sentence, that he is going to have to make a series of diagrams in order to learn about osmosis in a way that will enable him to solve problems.

Or consider this example, a short article from *Newsweek*:

GUILTY BUT INNOCENT

The scene was Agatha Christie's elegant *Witness for the Prosecution* shifted to the meanest streets of Boston. The defendant was John Evans, accused of murdering a taxicab driver. On the witness stand sat David Coleman, a friend of Evans. The prosecutor questioned Coleman as follows:

Q. You took your .38 and put it up to [the driver's] brain and you fired. Correct?

A. Correct.

Q. And you killed him?

A. Yes, I did.

Coleman swore that he had acted alone. The jury took only 75 minutes last week to find Evans not guilty. What the jury didn't know was that Coleman had been tried for the same murder several weeks earlier and had been acquitted; a friend had sworn he was elsewhere. Coleman returned to jail where he awaits trial on two armed-robbery charges. But he can't be tried again for murder because of the Constitution's double-jeopardy clause. Said District Attorney Newman Flanagan: "Coleman literally got away with murder."

Newsweek/March 15, 1982

To break through this text, which appears deceptively easy when taken word for word, the student may need to unscramble the chronology as a means of following the events to their conclusion.

Many students need permission to admit when they aren't "getting it" from the text. Especially for highly motivated students, recognizing that reading and understanding a text are not necessarily the same can be very hard. But once the student learns to recognize as soon as possible when reading alone isn't sufficient, he can then selectively apply strategies that will help him. The key word here is selectively.

Take outlining as an example. Even when students are taught how to outline, they are rarely if ever taught when to use this strategy in order to enhance their learning and save time. Instead, outlining is often taught as a discrete module that the student abandons when he realizes that there quite simply isn't enough time to outline everything.

PATTERNS OF ERROR

Current research suggests that individual errors come in commonly held patterns.* But even without reference to the research, most teachers upon reflection know that a test in mathematics, for example, will illustrate sets of identical wrong answers. Similarly, when making up a multiple-choice test, test makers as well as regular teachers know which wrong answers to include in order to make the test more difficult.

But let me begin by illustrating an error pattern of my own. I work with a woman named Ellen ~~Evans~~-Cooper-Evans . . . well, you can see the problem in the way I wrote it. Her last name is hyphenated, and I cannot remember which name comes first; both ways sound equally "right" to me. Indeed, when I wrote it wrong on this page, I only corrected myself by imposing a conscious strategy, a mnemonic that says, "C comes before E in the alphabet and therefore her name is Cooper-Evans."

The bad news is that patterns of error are very persistent; the good news is that once recognized, it is easier

* Readers who are interested in the research might start by reading "Research on Conceptual Understanding in Mechanics," an article in *Physics Today*, July 1984, written by Lillian C. McDermott.

The good news is that once recognized, it is easier to correct patterns than random errors.

to correct patterns than random errors. Thus, when receiving back a multiple-choice test, for example, students should be encouraged to analyze their wrong answers for patterns.

The first classification would be errors of content. Has the student gotten more wrong answers on enzymes, for example, than any other content area tested? Second, does he have a test-taking pattern: Does he do better in the beginning of the test and get more wrong answers later on as he is pressed for time? Or is he a slow starter? Or does he do well for a while, then poorly, then well again? (The latter suggests a problem with sustained concentration.) Third, does the student have more trouble with multiple-choice questions, say, than with questions that ask him to fill in the blanks? Or does he do poorly on short essays? For each pattern of error, the student can work out a conscious strategy for correcting it. Within multiple-choice questions, for example, many students have particular difficulty with answer sets that are similar, which is related to my dilemma over the name of my colleague, a common difficulty test makers know and use. For instance, a chemistry question might look like this:



Balloon A



Balloon B

Assuming a constant temperature, is the pressure in Balloon B

- A) Greater than the pressure in Balloon A?
- B) Less than the pressure in Balloon A?
- C) The same as the pressure in Balloon A?
- D) None of the above?

Even if the student recognizes that he needs to know Boyle's Law, and even if he remembers the abstract

(Continued on page 44)

EDUCATION FOR THE HANDICAPPED: THE DEVELOPING LAW

BY GRACE BELSCHES-SIMMONS AND PATRICIA LINES

JUST A few years ago, public schools routinely excluded handicapped children. Today, state and federal laws guarantee these children a free public education. Well over 4 million handicapped children now receive special education, at an average annual cost of around five thousand dollars per child.

Today, the primary law governing the education of handicapped children is P.L. 94-142: the Education for All Handicapped Children Act. Though more specific than anything preceding it, it nevertheless left many unanswered questions. The complexities arising from the practical applications of the law soon became apparent. Almost immediately, disputes over interpretations of the statute's provisions found their way into the nation's courts. The purpose of this article is to sort through the major litigation, including two of the cases that have been taken up by the U.S. Supreme Court, and selected lower court cases from 1984.

First a little history: The courts were the first to address the question of education for handicapped students, recognizing the rights of these young people under state and federal constitutions. Constitutional rights are the most enduring; not even Congress can roll them back. A lower state court in Utah in 1969 was one of the earliest to recognize the constitutional rights of handicapped children. However, the public did not focus on these rights until 1972, when federal courts ordered Pennsylvania and the District of Columbia to provide handicapped children with access to public schools. In *Pennsylvania Association for Retarded Children v. Pennsylvania (PARC)* and *Mills v. Board of Education (Mills)*, courts held that it violated the federal constitution's guarantee of equal protection to ex-

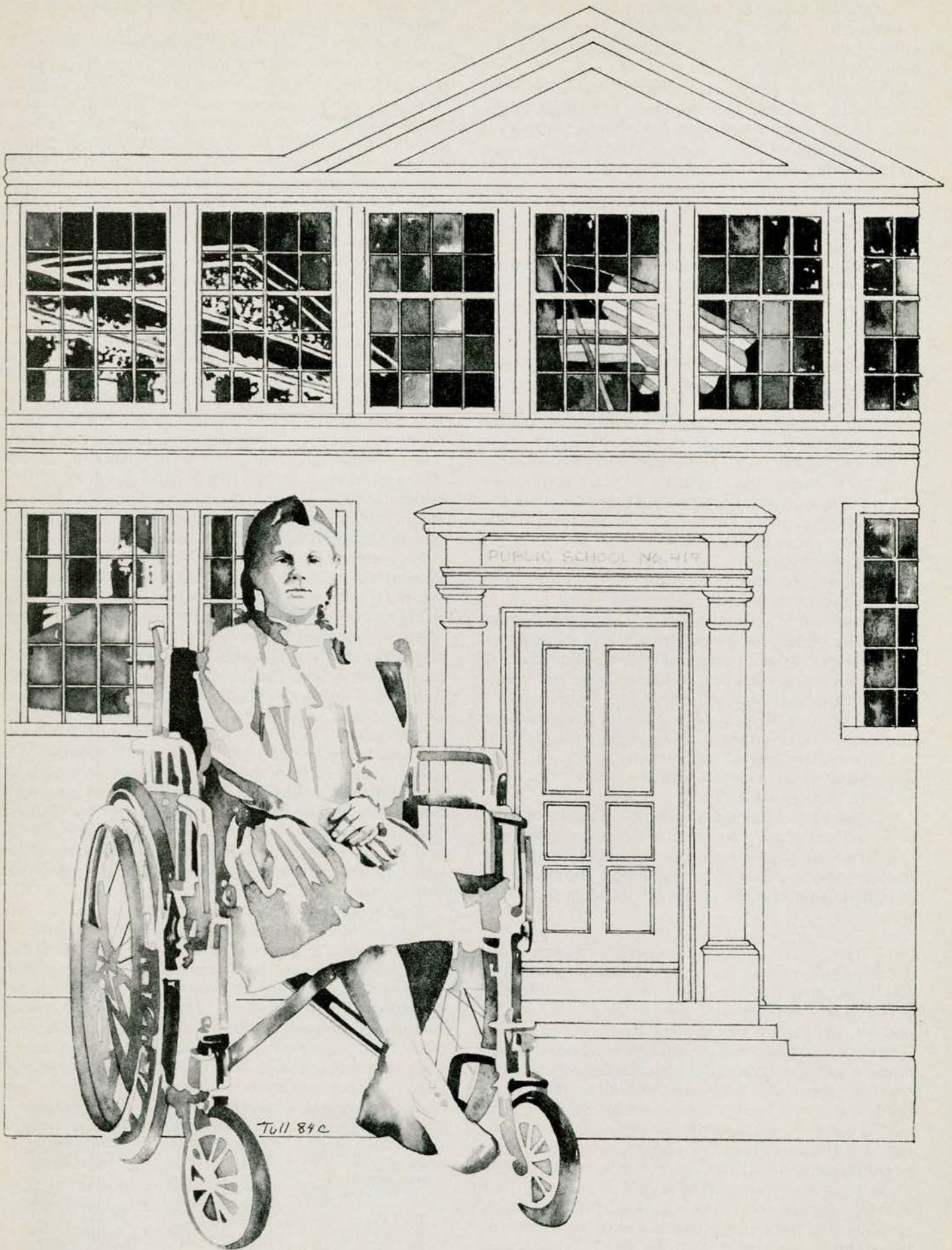
clude the handicapped from school.

Although these cases produced consent decrees (agreed upon by the parties without a trial) and so are of somewhat uncertain status as judicial precedent, most legal scholars interpret them as establishing a constitutional right of access for the handicapped. Moreover, congressional perception that states were unconstitutionally excluding handicapped children from schools was based on *PARC* and *Mills* and led directly to the passage of P.L. 94-142.

BEFORE THE courts had built a large body of precedent, Congress and the states enacted laws detailing the rights of handicapped students. Courts shifted quickly to interpreting the statutory rights, honoring a judicial preference for statute over constitution wherever possible, to avoid the charge of interference with policy making. In 1973, Congress passed the Rehabilitation Act of 1973, including section 504, which requires equal treatment for the handicapped in all federally funded programs. Then in 1975, Congress passed P.L. 94-142, which details the education rights of handicapped children and provides funding to states that agree to abide by the substantive rights of the statute. Although federal funds do not begin to cover the cost of educating handicapped children, all states now participate in the program.

P.L. 94-142, because of its greater specificity, has been more powerful than the Rehabilitation Act in assuring access to a quality education for handicapped children. Its major requirements fall into four categories. The act provides that all children have a right to a free "appropriate" public education and requires formulation of an individualized education program (IEP) for the handicapped child. It also provides for a right to be educated in the least-restrictive environment; that is, it favors placement in the regular class-

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room ("mainstreaming") wherever possible. Finally, it provides for "related services" and other potentially costly support services to enhance the ability of the handicapped child to benefit from education.

The right to a free appropriate public education is the heart of P.L. 94-142. Approximately two-thirds of the state special education statutes have similar provisions. In the summer of 1982, the U.S. Supreme Court interpreted the term in *Board of Education of Hudson Central School District v. Rowley*. Amy Rowley, a deaf child who was doing well in school, asked the courts to order the school to provide her with an interpreter so that she could realize her full potential. Failure to do so, she alleged, violated her statutory right to a free appropriate public education. The school had made some accommodations for Amy: Several individuals had taken a course in sign language interpretation, and a teletype machine was installed in the principal's office to facilitate communication with her deaf parents. Amy was provided with an FM hearing aid, which amplified the voices of the teacher and other students, who would speak into a wireless receiver. The Supreme Court decided that this was enough.

The trial court judge had found that Amy was not comprehending everything that took place in the classroom and that an interpreter would ensure that she did. The trial court, with the subsequent approval of the appellate court, held that Amy was entitled to receive an education sufficient to allow her to meet her high potential, with a "short fall" comparable to the "short fall" for nonhandicapped children.

The Supreme Court rejected this standard. William Rehnquist, writing for the majority, held that the statute required an education "tailored to the unique needs of the handicapped child" but reiterated that the statute does not mandate "a potential-maximizing education." *Rowley* permits diverse solutions, with a basic federal minimum. The Court seemed to recognize the difficulty of allowing the federal government to require more specific corrective measures when it was not taking full financial responsibility for those measures.

Teachers and administrators who are called upon to serve in formulating an IEP for a handicapped child should not be afraid to make practical decisions about the services the child will need so long as the program is designed to provide the child with an adequate education.

MANY STATE statutes, following the pattern of P.L. 94-142, require that every handicapped child be given a written IEP. The IEP is prepared at a meeting between a school district representative, the child's teacher, the parent, and in some cases, the child. The IEP is not a contract but describes the school district's plan for an appropriate education for the handicapped child. A parent who is dissatisfied with an IEP has the right to initiate "due-process" hearings. In these hearings, the issue is whether the IEP provides special education services and related services that address the peculiar needs of the handicapped child. Since the IEP is the only representation of the school district's efforts, it is most often the subject of litigation. However, teachers and others who participate in the preparation of an IEP should approach it with the goal of defining an

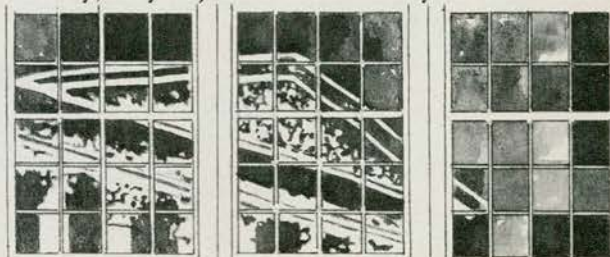
education appropriate for the child, not with an eye toward future litigation.

How "individualized" must an IEP be? The requirement is for individualized attention to the child's program, not for individualized instruction. In *New York, in the Karl case*, an educable mentally retarded woman, age twenty-one, challenged the adequacy of her IEP on grounds that it failed to be sufficiently individualized. The crux of her complaint was the assignment to a food service class with a student-adult ratio of twelve to one rather than nine to one. The U.S. Court of Appeals for the 2nd Circuit ruled against her, refusing to be drawn into judgments best left to the professional educator. The Court observed that she received individual tutoring at other times, and if educators believed that was enough, it was.

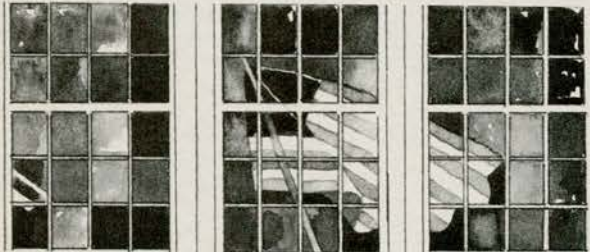
"Appropriate" education is an ambiguous term, and at times it may clash with other requirements of the act. P.L. 94-142 clearly requires mainstreaming wherever appropriate. (About half the state special education statutes have similar requirements.) This does not amount to a right always to be educated in the regular classroom. On occasion, placement in a regular classroom will be outweighed by other factors, such as sound evidence of the inability of the child to adjust to the regular school environment or the child's need for extraordinary medical services. However, failure to mainstream might result in a court order to do so.

For example, in *Katherine D.*, the 9th Circuit reviewed a decision not to mainstream. Katherine, who wears a tracheostomy tube allowing her to breathe and expel mucus secretions two or three times a day, would require some medical services in a classroom. Her IEP recommended only homebound speech therapy and parent counseling. Her parents rejected the IEP and initiated due-process hearings. In the meantime, she continued her education at a private school at her parent's expense. The 9th Circuit found that the IEP did not offer Katherine a "free appropriate public education." The court noted from the child's experience at private school that she could benefit from placement in a regular classroom. The 9th Circuit held the school district liable to her parents for her private school tuition. Rarely do courts order reimbursement for private school or other money damages, but this case seemed clear to the 9th Circuit.

Transfers may or may not be appropriate. In Arizona, in *Wilson*, school officials decided to transfer a girl with cerebral palsy after deciding that she was making insufficient progress with her teacher, who was certified to teach children with learning disabilities. They chose a district thirty minutes away, which employed a teacher certified to teach children with physical disabilities. While the parents did not dispute the fact that their daughter suffered from a physical and not a learning disability, they objected because they did not want her



separated from friends or labeled as "handicapped." Interestingly, in this case, it was the parents and not the school officials who urged reliance on *Rowley*, arguing that their daughter did not require the best possible education. The U.S. Court of Appeals for the 9th Circuit upheld the transfer, emphasizing the discretionary authority of state officials to decide what is appropriate. The Court also observed that the preference for mainstreaming the child did not take priority if a transfer was "appropriate."



P.L. 94-142 does not mention all possible education programs in its definition of special education services or related services. The statute simply requires a program that is uniquely designed to meet the needs of the child. This may require services very different from those offered to the nonhandicapped child. In *Rowley*, the Supreme Court declined to establish any test for determining the adequacy of services provided to children but made it clear that those services could be much broader than those provided nonhandicapped children. Some of these services may be major. Summer school is an example.

In some cases, the regular 180-day school year will fail to meet the educational needs of the special education child. Although several state statutes also specify that an extended school year must be provided when evidence shows that a summer interruption would cause severe regression, some states refuse to provide free special education services for more than 180 days. These states argue that P.L. 94-142 is concerned only with the kind and quality of services provided by the school district and leaves decisions about the duration of the services to the state.

Courts are rejecting such arguments and requiring states to include an extended school year in the IEP, where necessary, to meet the educational needs of the child. In 1984, in *Crawford v. Pittman*, the U.S. Court of Appeals for the 5th Circuit struck down the state of Mississippi's policy of refusing to provide for summer school in IEPs. The court held that the policy of denying an extended school year to any child despite his or her individual needs was a misreading of the state's obligations under the federal statute. The court noted: "Rigid rules like the 180-day limitation violate not only the act's procedural command that each child receive individual consideration but also its substantive requirements that each child receive some benefit and that lack of funds not bear more heavily on handicapped children than nonhandicapped children."

Teachers and other education officials involved in planning IEPs for handicapped children should analyze the effect of the long summer break on the educational progress of the child. In those cases in which the break will cause regression, so that the child (and teacher) have to "start over" every September, the courts seem to

be saying that the IEP should provide some summer services for the child to ensure that gains are not lost.

P.L. 94-142 requires schools to provide "related services." This includes transportation and "developmental, corrective, and other supportive services." The act specifies speech pathology, audiology, psychological services, physical and occupational therapy, and counseling services. Medical services are included on a very limited basis: "Medical services shall be for diagnostic and evaluation purposes only as may be required to assist a handicapped child to benefit from special education and includes the early identification and assessment of handicapping conditions in children." This definition is not comprehensive, and much litigation has taken place over the term "related services." For example, what is a medical service (other than diagnostic services), and what is not?

In July of 1984, the Supreme Court decided a case brought on behalf of Amber Tatro, an eight-year-old girl with spina bifida, a birth defect resulting in, among other things, inability to empty her bladder voluntarily. To avoid kidney injury, Amber required a procedure known as clean intermittent catheterization (CIC) every three or four hours. The Court held that CIC was a related service and not a medical service. This means that the Court felt school nurses and even properly trained teachers and other nonmedical personnel are competent to perform the service and must do so since it is essential to the child's attendance at school.

The Court was persuaded by the regulations of the U.S. Department of Education, which defined related services to include services that could be administered by a school nurse or other qualified person, but not those services requiring a physician. Amber's parents, babysitter, and teenage brother were all qualified to provide CIC, and Amber would be expected to do it herself as she grew older. The school argued that because a physician must prescribe and supervise the CIC procedure, it was a medical service and excluded from the requirements of the act. The Court rejected this view, pointing out that even nonhandicapped children received oral medications and emergency injections from the school nurse.

Typically, procedures such as CIC would be handled by the school nurse, but in his or her absence, the Supreme Court decision implies that it does not seem unreasonable to expect one or two teachers at a school to receive training and perform the task. The guide seems to be: Can a layperson do it? And are similar tasks performed for nonhandicapped children?

IN TWO of the three cases that have reached the Supreme Court, it is clear that state and local education agencies will be required to provide a great variety of special education and related services to the handicapped child. But it is also clear that courts will defer to the judgment of professional educators in areas in which they have expertise, that is, judgments about education. The courts are more comfortable with questions about basic rights and services necessary to assure those rights. The courts will look at questions about class assignment, teacher qualifications, and the IEP, but the pattern seems to be deference to the careful and expert judgment of educators. □

MANNERS AT SCHOOL

BY JUDITH MARTIN

The columnist George Will once observed that Judith Martin, who writes under the name Miss Manners®, "insists, wrongly, that she deals with manners rather than morals. . . . Actually, her book is the most formidable political book produced by an American since The Federalist Papers, and it took three Americans to produce that. Her subjects are conventions, restraints, social elbow room — in fine, correct conduct. Between anarchism and Stalinism lie civilization and Miss Mannerism."

Having set the standard for how to live graciously with each other in her best-selling book, Miss Manners® Guide to Excruciatingly Correct Behavior, Judith Martin has now directed her wit and wisdom to the subject of civilizing the young, a task in which parents and educators have a sizeable stake. With her usual high-minded hilarity, she dispenses advice to cover all occasions, from birth to marriage. Miss Manners® Guide to Rearing Perfect Children, which was published this fall, "is designed for parents, step-

Judith Martin's syndicated column "Miss Manners" appears in newspapers nationwide. She lives in Washington, D.C., and is currently at work on her second novel, Style and Substance. The above excerpts are taken from the book Miss Manners® Guide to Rearing Perfect Children by Judith Martin. Copyright© 1984 by United Feature Syndicate, Inc. Used with permission of Atheneum Publishers.

parents, grandparents, teachers, psychologists, ice-cream vendors, and all others who must, however unwillingly, deal with children constantly, during working hours or on weekends and holidays." We are pleased to be able to present excerpts from its section on proper school etiquette.

— EDITOR

TALKING WITH TEACHERS

Parent-teacher conferences are enormously educational, teachers of Miss Manners' acquaintance have confided to her. What the children haven't already volunteered about the parents' shortcomings, the parents will usually demonstrate themselves.

There are the ones that use the conference as an opportunity to quarrel with each other, and the ones who, long divorced and reunited only on these occasions, use it to flirt with each other. Some parents turn childish and tongue-tied, and others, childish and impetuous. What the parents expect to have done for them is usually spelled out — the teachers should perform the parental functions of instilling honesty, discipline, and kindness; while the children should take over the parents' unfulfilled ambitions.

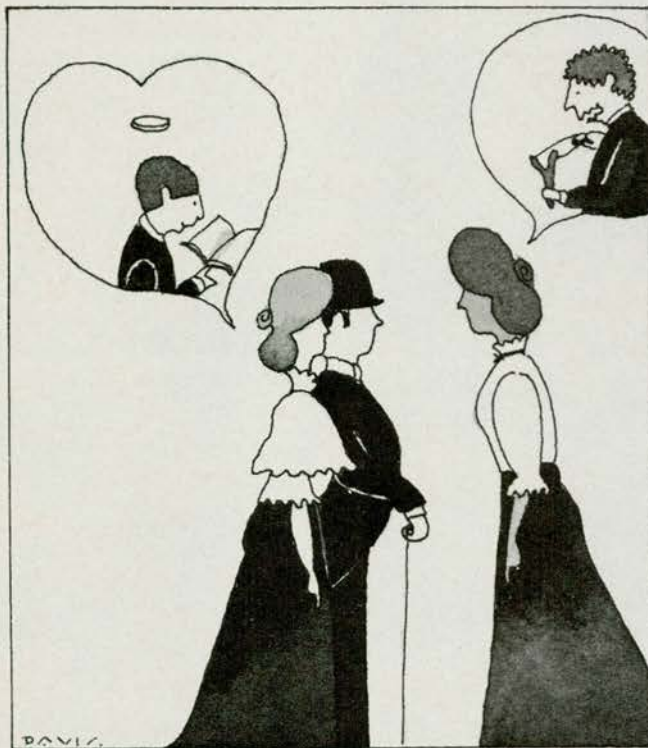
Miss Manners is against this sort of exercise, at least on the child's time. Why submit yourself to be graded when you don't have to? All the parents need do is accept the traditional parent-teacher bargain of "You don't believe everything the child tells you about me, and I won't believe everything the child tells me about



you" and spend the time exchanging useful observations about the child.

These include interests, work habits, pressures, problems, and practical suggestions on both sides as to how these may be put into the service of educating the child. They do not include general philosophical or psychological analyses by either parent or teacher. Nor is it their business to analyze each other. There is altogether too much of that kind of thing going around, and a little straight reporting on both sides — "She doesn't understand the homework," "He can't keep still in class" — is more helpful than all the vague talk about complexes and inadequacies.

All parents know that the reason educators are paid so little, in spite of our all believing that the job of educating the young is the most important task of society, is that teachers are rewarded enough by being allowed to spend their workdays with cute children and their nights and weekends reading their adorable papers. Nevertheless, she thinks it a matter of elementary manners to treat a teacher with some respect for the profession, which involves not circumventing, or helping the child to circumvent, the rules and requirements of the classroom. Teaching is cursed with being one of the jobs, like movie making or being president, that every layman is certain he could do better than the professionals.



Acting on the unchecked reports of usually unreliable sources, i.e., small children, is a mistake. The most honorable children have a lively sense of the arbitrary in human events, which does not correspond to the adult concept of cause and effect. The statement "He started it" may be correct as far as it goes, but it presupposes a void before that action. And every child firmly believes that teachers have unshakable personal likes and dislikes among their pupils, of completely undiscernible origins. Try telling a child who says the teacher hates him, or loves someone else, that a teacher's heart is

there for the taking by any child who shows interest and industry. An "unfair" teacher, in Miss Manners' observation, is generally one who refuses to waive standards on the appeal of a child who counts on having winning ways.

As much as Miss Manners admires family loyalty, she thinks it in the best interest of children for their parents to be frank about them in private conferences. Unless the parent has been doing the homework and writing the papers and therefore is really attending the conference in the hope of persuading the teacher that his work deserves better marks — don't think it doesn't happen — there is not much point in defending the child from a teacher's criticisms. The other side of this is that there is not any use in a teacher's offering a criticism without some hope for its being corrected.

"I have to keep reminding myself," said a teacher of Miss Manners' acquaintance, "that the parents are probably not going to trade the child in for another one, so there's no use in pointing out that he is impossible."

Perhaps if parents promise to behave themselves, the teachers will let them off easily and not send them home notes requiring them to produce bunny costumes, five dollars, three empty milk containers, or themselves by 10:45 tomorrow morning.

EDUCATING PARENTS

Many parents who have a tough time getting through school would find that if they could only master Basic Department, the rest would be a breeze. Disapproving teachers, the nightly burden of homework, shame over less-than-perfect grades, the embarrassment of reciting poorly in front of others — all these problems can be lessened, if not erased, if only parents could learn to behave like little grown-ups.

The children, of course, would still have all these difficulties. That is the nature of things, and the memory of difficult school years gives a person a rich feeling of satisfaction all through life at having grown beyond their reach. But parents can escape them and benefit their children at the same time.

Take the matter of reciting, which is the name given to discussing new subject matter until one's ignorance is apparent to all. Most parents, when their children report having learned something at school, feel as if they have been called upon in class. Instead of listening to the children's newly acquired knowledge, as politeness demands, they take the mention of the topic as a direction to tell everything they know about the subject, thus not only squelching the child's pride, but eventually often getting themselves into that awful situation when the child reports that the teacher's version differs convincingly from theirs.

If a wife comes home from work and tells the family at dinner what happened that day, is she immediately cut off by everyone else present with lectures based on everyone's knowledge, however vague, of her field? Yet a child who meekly volunteers something like "We studied the Declaration of Independence today" will find he has irrevocably surrendered the floor to grown-ups who consider this an opening to tell everything they know, and a great deal that they have forgotten, on this subject or anything remotely related to it. The simple



courtesy of replying, "Oh, really? What did you discuss?" and then listening, with an occasional question or comment indicating that the material is important and that the child may have acquired something interesting to say on it, is unheard-of.

Then there is the homework. If the parent takes over responsibility for homework's being done, which is not the same thing as supplying modest help on request, the parent has relieved the child of a difficult burden and taken it upon himself. Husbands and wives do not generally write each other's professional reports. However much they may advise and contribute, they usually assume that the person with the responsibility also has the competence. This may not always be true in the case of a child, but proof that a thirty-five-year-old can turn in a better paper than an eight-year-old does not do much to advance the purpose of education. The motive, of course, is to help the child capture the greatest awards of his situation. A parent who is willing to do homework is therefore under an obligation to keep it up through graduate school.

It is another common rudeness for parents to criticize grades automatically, even if they are good ones. A child who brings home a 96 is rarely congratulated; he or she is told, "Next time, see if you can make it 100."

Showing interest in, respect for, and attention to the occupations of loved ones, from their triumphs to their personal problems, is one of the constant duties family members owe to one another, and the child's career of schooling should be considered to be of top-ranking importance in this respect. But something happens to people who take a decent interest in the gainful employment of adult relatives — sympathizing with ups and downs, supplying confidence when the going is rough and recognition when it has not been sufficiently bestowed officially — when it comes to their children. It is made clear that those children must achieve the academic excellence that their parents surely achieved themselves.

It gives children a lot to live up to, of course, when they find that their parents already know everything they can learn, can perform better at their tasks, and would never settle for anything short of perfection. It also gives them the idea that, given the statistical possibilities, it is hardly worth their while to try.

CLASSROOM RULES

DEAR MISS MANNERS:

I am just starting out on a teaching career, somewhat intimidated by what experienced teachers tell me of today's discipline problems, and the lack of cooperation from parents, either in training kids or in punishing them when misbehavior is reported. My first class will be second-graders in an urban public school. My hope is that if I get them young enough, and show enough authority (keeping my qualms to myself), I will set the proper tone and they will pick it up. Can you suggest some rules for classroom decorum? I want to be fair. But if there is trouble, how do I find out who is really responsible without turning the children into tattletales and getting them into deeper trouble with their peers?

GENTLE READER:

According to a wise school director of Miss Manners' acquaintance, a teacher rules through force of personality. Here are some of her suggestions for law enforcement:

- All feet belong on the floor at all times.
- Personal remarks are never allowed, not even compliments. If you can tell the teacher she is pretty, you could presume it all right to mention that a classmate is ugly. If it is acceptable to point out that a child has nice new shoes, it would seem reasonable to point out that he also has crossed eyes.
- Do not debate family values, as in "My family says you should hit back." School rules prevail.
- You are not allowed to say everything you think; the idea is to learn to think things through first, to sift



out what is offensive, irrelevant, or otherwise inappropriate.

- The idea that a free society permits anything should be squelched immediately, and a lesson be given instead on the meaning of law in a democracy.

- When you have permission to leave, leave quietly.

As for crime detection, Miss Manners is told that it is not necessary to use informants because children can easily be persuaded to incriminate themselves. The exercise of letting them do so also serves as protection to the tipster.

First, you round up the suspects and give them a general lecture on the necessity of obeying rules, fairness, and so on — slowly and painfully closing in on the particular infraction. You then question small groups, suggesting that you know a great deal more about what happened than you are ready to share. The weakest of the wrongdoer's cohorts — they always have cohorts — will crack and start to blurt out what happened. Before the others can turn on him, you say, "Isn't that brave of him?" — thus reshaping his reputation from that of a squirt whom it is safe to attack later to something of a leader himself. The actual leader will have been powerless to keep his troops in line and will be a leader no longer.

Miss Manners hopes this will be of use to you as a teacher. If not, she can think of several other lines of work in which you might try it out.

CAR POOLS

Telephones are busy in the fall with anxious and cajoling voices setting up their most significant networks of relationships for the season. These are the human ties that will determine how, and sometimes if, they will get through the year. Miss Manners is referring, of course, to the arranging of the car pool.

Specifically, she is referring to the children's car pool to and from school, with side trips to related institu-

tions, such as ballet school, the orthodontist, and the hospital emergency room. Such car pooling is second only to marriage in the unrealistic expectations it inspires and the corresponding bitterness. And it's not second by much. People expect it to work and make their own plans on their nondriving days, confident that their children will be picked up by others. There are few times that an adult can be so unfeeling about the illness of a child as when that adult realizes that therefore that child's parent is not going to drive.

Sick leave, as well as vacations, business trips, and malfunctioning automobiles, must therefore be built into the car-pooling contract. There should be a substitute driver always on standby duty. This is, naturally, impossible, since all the participating adults are overbooked by definition of being parents. It helps to draw as many people as possible into the situation — not only both fathers and mothers but all adults under the roof. Two weeks as the live-in lover to a person with school-age children and you are eligible for the draft. While allowances must be made for individuals' schedules (such as the fact that everybody can drive in the morning and nobody in the afternoon), it is no fair fathers' claiming it's all the mothers' problem and then leaving the mothers-with-jobs and the mothers-without-jobs all to claim that the others are expecting too much of them.

Nothing, as Miss Manners is well aware, will make car-pooling children bearable. But there are a few suggestions to alleviate the torture:

- Each driver may set his or her own rules to accommodate such adult idiosyncrasies as not being able to stand choruses of "A Hundred Bottles of Beer on the Wall."

- Passengers planning to go home with friends after school must notify the car pool rather than letting it sit there and wait.

- All fights must be verbal.

- Promptness is preferable to presentability. If one must finish putting on one's shoes or chewing one's breakfast in the car to avoid keeping the car pool waiting, so be it.

- Passengers are requested not to exhibit to one another two-day-old lunch items or what they have under their knee bandages.

- Equipment that makes sudden, startling noises, such as band instruments and dolls that say "I WANT ANOTHER DRINK OF WATER!" are banned.

- Choice seats must be rotated.

- Items of which passengers wish to dispose inconspicuously, such as vitamins, bubble gum, or undesirable lunch ingredients, may not be buried in the back seats of cars.

- Distances that will be traveled to pick up forgotten items should be codified. It could be announced, for example, that the car pool will return within one block of the pickup point to retrieve a forgotten lunchbox, two blocks for a costume needed for a play, and three blocks for homework.

- The driver is allowed to relish privately all information about the private lives of the other drivers, as information overheard when these people's children expose the details to the other children — but must regard it as privileged conversation, which may not be repeated (except to the driver's spouse). □



(Continued from page 25)

FINALLY, AS educators, we can take pride in the findings of this twenty-year study. Here is a project receiving great national attention, and "we" did it. At a time when the education profession is receiving considerable criticism, the Perry Preschool project is a special triumph for a group of dedicated teachers who provided years of service. It also is a triumph for the entire education profession in that it shows how education can make a positive difference in the lives of children.

As educators, we can take pride in the findings of this twenty-year study.

The widespread establishment of high-quality early childhood programs in the United States can only be accomplished with the substantial support of both educators and the public. This support must start at the local and state levels. Certainly, key decisions, particularly about the national Head Start program, will continue to be made in Washington, D.C. However, we anticipate that major new decisions on education programs that must be made in the next decade will be made by state governments. In fact, state governments have the most to gain from the establishment of these programs, for state governments now bear the vast costs of education (particularly for children from low-income families), of the legal system, and of the welfare system. The initial financial outlays will, in the long run, result in savings in state budgets.

It is time for the nation to recognize the importance of early childhood education to the healthy development of its children. The research does not indicate that all programs can produce such positive outcomes as reported in the Perry Preschool study, but it does indicate that programs of high quality hold tremendous promise. Early childhood education is not a panacea, however. It will not solve the nation's unemployment problem. It will not solve the problem of how to deliver effective education in the elementary and high school years to the "graduates" of good early childhood programs. It will not solve the problems of welfare. It will not solve the nation's crime problem. Early childhood education is part of the solution to society's ills, not the **whole** solution. High-quality early childhood education can help society make progress in resolving all of these issues with a financial payback that is greater than the investment. The key question we must ask ourselves now is, "Why are we not providing quality early childhood education to all disadvantaged children?" □

(Continued from page 29)

imaginative participants. Observing that math students commonly learn procedures without understanding the mathematics involved, these teachers were quick to come up with sharp writing assignments like the following:

- "Explain what an angle is and how you label it."
- "Using complete sentences, define the slope of a line. Discuss the implications of zero, positive, negative, and no slope."
- "What is the difference in the mathematical terms 'factor' and 'coefficient'?"

In workshops since, in big-city and small-town schools, teachers of business education, industrial arts, special education, English as a second language, and other subjects have all found that writing gives them concrete advantages. It is not too much to say that writing has given some teachers a new lease on life.

My favorite conversion story is that of a physical education teacher who opened a workshop presentation with a tongue-in-cheek apology. "We don't write often in the gymnasium," he began, and went on to recount an experience with his wrestling skills class.

The assignment he gave was one that might pin even a wrestling buff: "Explain the procedure of scoring a wrestling match." Written with the enthusiasm of someone who loves his sport, the best paper was truly a fine piece of expository writing. Another must have been the work of someone who signed up just to meet a diploma requirement. A few didn't go a single round. The great majority were clearly satisfactory, however; and their teacher promptly exploited the assignment by having his wrestler-writers take turns refereeing in-class matches.

There is no package of strategies that, unwrapped, will install writing in any teacher's classes. Nor is there any one right way to make effective use of writing. In schools where writing has not been the general practice, it is important if not imperative to begin with inservice training under the direction of a staff member or consultant who is familiar with the practice.

Ultimately, however, everyone has to find, and follow, the way or ways that suit one's own purposes and style. There are countless ways. The objective is to keep students working their own way through the content of education. The goal is better teaching, sounder learning.

At the last of one series of workshops, a teacher remained unconvinced. "I don't believe writing is the panacea you make it out to be," she said, testing my faith.

I have never claimed that writing is a panacea for the shortcomings of education, but for a certainty writing is an essential means of learning — probably the best means boys and girls have of comprehending what they go to school to learn. It is my conviction that unless schools and teachers recognize and exploit the relationship of writing to learning, literacy will not rise much above the "functional" level, and learning in school will continue to be what is for countless American young people today — the uncertain accumulation of information, most of it unrelated, and much of it trivial. □

THE USES OF ERROR

(Continued from page 33)

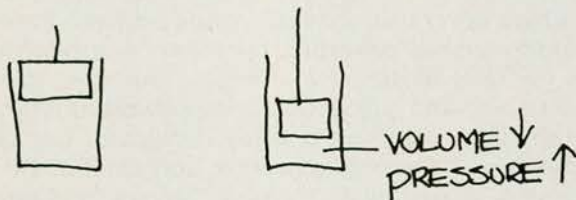
formulation of this law, he may still find he has trouble choosing, curiously enough, between choice A and choice B, that is, between the diametrically opposed answers. The student who is least confident, furthermore, will often resolve the dilemma by choosing C because, so they tell me, it seems the "safest." Furthermore, even the student who is confident enough to choose between A and B tends consistently to choose the same answer on tests, even if that answer is wrong. That is, the wrong answer is patterned just as the right answer is patterned. The student who has an established a wrong pattern will consistently get the wrong answer unless he develops a conscious and deliberately applied intervention strategy.

What are some strategies? The one I have already illustrated, of course, with Mrs. Cooper-Evans' name is developing a deliberate mnemonic — one that is easy for the student himself to remember, however simple-minded it may seem to others. But perhaps the most neglected and the most useful strategy is remembering a specific example that makes sense to the individual student and thereby allows him to re-create a rule and apply it analogously to solving less-apparent problems.

USING ANALOGOUS THINKING TO RE-CREATE A RULE

Consider again the problem with the balloons and Boyle's Law. Boyle's Law states that, with the temperature constant, the volume is inversely proportional to the pressure. Chemistry students dutifully memorize this law, but then a certain proportion of them consistently have trouble applying it to a problem such as that with the balloons.

Now, I am not a chemistry teacher; indeed, I am barely a novice student in science, so I share some of the same difficulties as my students. That is, unless I use an example of Boyle's Law that I find both easy to remember and to understand, I too have difficulty choosing between A and B. The example I use for remembering Boyle's Law involves the piston in my car. As the piston goes down, the volume is reduced, but I know the pressure gets greater because eventually it gets so great it pushes the piston back up again, which is what moves my car forward. And I know the temperature stays constant because my car moves winter or summer. But in order to use this example, I need to put it in a diagram.



Applying the "rule" now back to the balloon problem, I can see that the volume of balloon B is greater than that of balloon A, so the pressure must be less. Without reformulating the law by using the example of the piston every time, however, I personally would consistent-

Chemistry students dutifully memorize Boyle's Law, but then a certain proportion of them consistently have trouble applying it.

ly choose the wrong answer because it "feels" to me (my personal wrong pattern) as though the pressure in balloon B should be greater.

The use of an analogous example to apply a rule is useful both in science and in mathematics. Indeed, it is a powerful, not to say essential, device for solving problems perhaps, in part, because analogical thinking would appear to be "natural."* That is, we are apparently more comfortable with analogical than with analytical thinking. In any event, it is a simple enough strategy to learn and to use, one that enables a student to consistently get the right answer even in opposition to an already established wrong pattern of thinking.

As part of introducing any of these strategies, however, the teacher must warn the students of some initial problems. First of all, in the beginning, the application of these new strategies will seem time consuming, not time saving. Since most of the students I am talking of cling to time as a life line, it must be pointed out to them that, with practice, using these strategies will pay off in higher scores and in time saved.

To illustrate, I use an analogy from tennis. Say the professional suggests that you change the way you hold the racket in order to improve your backhand stroke. Initially, the backhand stroke will get worse. In order to get better, you have to persevere however cumbersome it feels in the beginning. Similarly, my students ask me: "You mean you make that little drawing of the piston every single time you want to solve problems that require Boyle's Law?" And I answer that yes, indeed, I do, because otherwise I would only get the wrong answer faster.

Once students have developed the habit of using selective intervention strategies, once they have been given permission to use their errors for constructive purposes, then all kinds of good things begin to happen: They increase control over their studies, which in turn builds confidence, which in turn enables better learning and ultimately, of course, better scores. And, with practice, it even begins to happen faster.

One can argue that without Eve's error in the garden, there would have been little or no learning, indeed no need for schools at all. But given that initial error, mankind's fate in the academic world, as the old saw says of history, is simply that he learns from his mistakes or he is destined only to repeat them. □

Hunt, Morton. "How the Mind Works." *The New York Times Magazine* (January 24, 1982).

Letters

LIBERAL ARTS COLLEGES

Faith Dunne correctly notes that selective liberal arts colleges drive bright undergraduates away from teaching, but she misses one of the chief reasons why. The very "certifying" and "teacher-training" courses and programs that she wants more of are often the repelling factor.

Such was my own experience many years ago, and if anything, it's even worse now. I wanted only to teach English in high school and knew that I'd have to take some education courses to be certified. I took exactly one. It was so boring and flatulent that I switched my goal to college-level teaching. I went on to the Ph.D. at Brown, where I didn't have to take a single course in education. I got practical classroom experience as a teaching assistant and later as an instructor, turned out to be pretty good at it (some of my graduate school contemporaries turned out not to be), and never had to take another education course.

Such courses are still turning undergraduates off. One of Ms. Dunne's noneducation colleagues is quoted as calling courses like the one I suffered through "blackboard erasing," and many still are just that. Nowadays, there are two other tortures of the mind not even dreamed of when I was an undergraduate: One is called the "touchie-feelie" course by today's undergraduates — everybody standing around holding hands or group-groping blindfolded; the second is based on the fatuous theory that learning takes place best in a "stress-free" situation so everybody gets an automatic A. Is it any wonder that talented undergraduates are actively driven from the profession by such inanities?

Sure, Dunne is right in identifying three reasons why brainy undergraduates reject our profession: lousy pay, social contempt, and calling first-rate education "wasted" on precollege-level teachers. All I'm

saying is that there's a fourth such reason: the asinine nature of most — by no means all — education courses themselves.

—RICHARD H. REIS
*Southeastern Massachusetts University
New Dartmouth, MA*

It was with great interest that I read the article "Liberal Arts Colleges and Teacher Quality."

I had always conceived of teaching as a logical sequence to the study of the liberal arts. A strong major in one of the humanities, in a liberal arts college, accompanied by appropriate courses — three or four — in educational methodology and principles would seem to be the ideal setting for a teaching career. After all, in our undergraduate days (in the 1930s), we all felt that solid foundations in the subject matter were of the utmost importance. What happened in New York City, around 1930, was that, as a budget-cutting measure, the state normal schools (teacher-preparatory institutions) were shut down and their function was delegated to the municipal colleges, i.e., Hunter, City, and later Brooklyn and Queens Colleges. These had well-founded programs in the liberal arts, all of them leading to a bachelor's degree that prepared the way for graduate work or for law school or medical school.

Thus it was that many capable teachers came out of these city colleges. The emphasis was on a given major in one field: English, a romance language, classics, mathematics, and so on. Education courses were thought of as an adjunct. There was no doubt in anyone's mind that the important part of teacher preparation was a mastery of one's field. Methodology, psychology, principles of education could be added *after* one had demonstrated ability and skill in one's chosen field.

I think the city colleges produced good teachers, too. No doubt the normal schools, whose teacher graduates had taught us through

elementary and intermediate stages of our development, produced equally fine transmitters of a cultural heritage that we all shared. The proof of that may be found in the success achieved by their students who went on to high school and to colleges in the area.

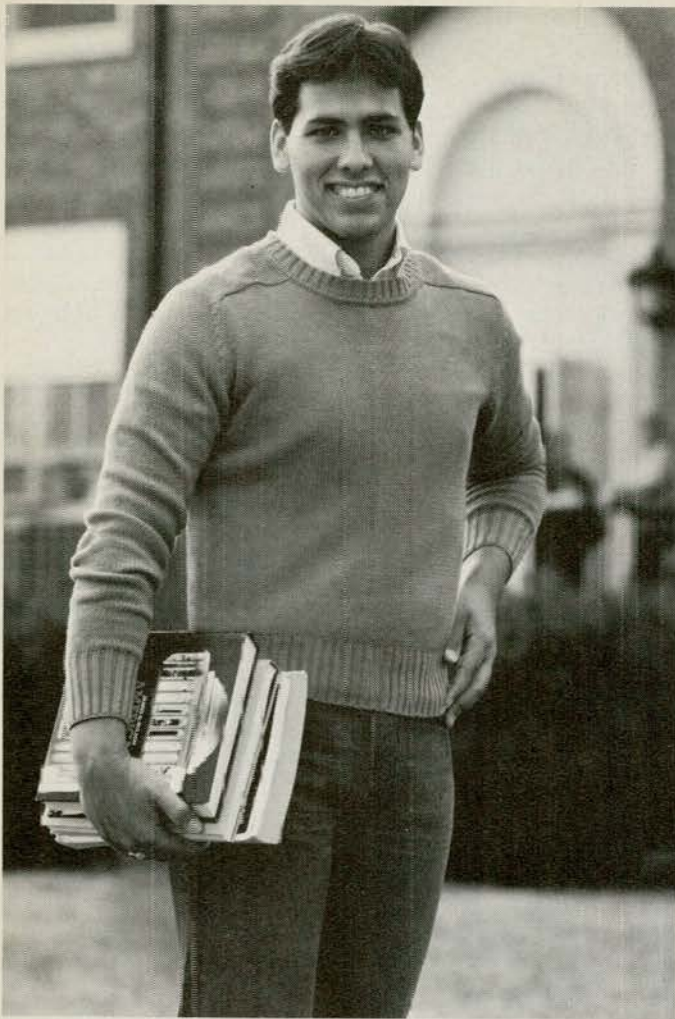
It is, indeed, unfortunate that undergraduates in the liberal arts setting should be made to feel that a teaching career is hardly commensurate with the effort involved in college study and work. The nation is the loser when such an attitude prevails. In the light of current educational needs and problems, I would hope that a revision of attitudes and emphasis in these matters might ensue.

—FRANK CAROLLO
Staten Island, NY

HUCK FINN

June Edwards has given a good answer to the question "What's Moral About *Huckleberry Finn*?" (Fall 1984), and I hope that this excellent article will help to keep this great novel in the high school curriculum. However, even the most perceptive interpretations of novels cannot prevent other readers from finding different meanings; a school board might still have to confront someone who can point to what's immoral about *Huckleberry Finn*. What do we do then? Even if we argue that good teachers would emphasize the positive values presented by Edwards, we would still have to explain why we don't choose novels and plays that support our values clearly and consistently so that we would not have to explain away the shocking and confusing actions that are admittedly part of this novel.

I would suggest, therefore, that while accepting Edwards' remarks as far as they go, we also argue that the value of any great novel or play, including *Huckleberry Finn*, lies not in the moral that we extract from it but in the entire imaginative experience.



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In the case of *Huckleberry Finn*, that experience includes both the shock to our moral sensibilities at Huck's actions and statements and Mark Twain's wonderful sense of comedy that makes us laugh not only at the "bad guys" but at life itself. In our eagerness to interpret the classics so as to satisfy the moral claims of our communities (as well as our own), we should be careful not to explain away the very qualities that make these novels and plays worth reading.

Granted that there will be resistance in many communities to such a defense of literature, we would have the advantage of appealing to the experience of everyone who reads or has read literature with any degree of pleasure. As we look back at the books that we have enjoyed, can we honestly say that it was the moral lesson that made them exciting? I don't think so, and I'm confident that we can gain support for *Huckleberry Finn* and other classics by emphasizing what they alone can do for their readers: make them see and feel life at a deeper and more comprehensive level than can be reached by other books. By thus shifting the ground from morality to literary excellence, we can, I believe, win the struggle to keep books like *Huckleberry Finn* in the curriculum.

—LAWRENCE W. HYMAN
Ridgewood, NJ

WORLD HUNGER

Jeremy Bernstein's "Science Education for the Non-scientist" (Fall 1984) discusses an important endeavor and gives three very good reasons for attempting it: curiosity (of non-scientists), technological bewilderment, and technological necessity. He might have added a fourth: the practicing scientist's attitude of skepticism toward even the most pithy slogans and the most sweetly reasonable propositions until they have been tested against real data.

This is a pity because, had he done so, he might have been more disposed to demonstrate this skepticism in his own article. He would not then, I believe, have so enthusiastically endorsed the vulgar distortions of the world hunger problem that he describes as being presented at the University of Delaware: "In previous classes ... the biologist had ex-

plained the facts about hunger and had made it clear what the resources were. On this ... day, the discussion had to do with choices — specifically: Whom shall we choose to feed? ... The moral dilemma is clear. Feeding people raises health standards, especially the health standards of children. Hence, it produces a growth in world population, which, in turn, lowers the standard of living for everyone."

Now just what are the data that support this sweetly reasonable theory about the effect of healthier children or Garrett Hardin's equivalent pithy slogan, "More food means more babies?"

The answer is that, on the whole, the data support the opposite view: When children are healthier, population growth rates tend to go *down*, not up. One can make sweetly reasonable guesses as to why this should be: Poor rural families, who are the main source of the growth rates, have children because it is in their economic interest to do so. At an early age, the children bring in more income than they consume. So if a child dies, the parents produce a new one. Indeed they tend to over-compensate to allow for the possibility of future deaths.

Bernstein could have found these data in many places. I'll mention *The Poverty of Nations* (Johns Hopkins University Press) by my colleague, William W. Murdoch, because it is by a biologist who points out that the world hunger problem is primarily economic, social and political, not biological. The training of a biologist no more fits him to give "the facts" on world hunger than does the training of a physicist.

I should add that neither Murdoch nor anyone else thinks the solution to world hunger is for the United States to reach out and feed someone. For all the agonized moral questions Bernstein considered at Delaware, U.S. food aid is more likely to be based on such needs as disposing of farm surpluses and propping up corrupt and inefficient Third World oligarchies that are friendly to us. Even when motives are good, food aid can be bad since it causes agricultural prices to go down, thus further impoverishing the rural majority.

—ALLAN STEWARD-OATEN
University of California
Santa Barbara, CA

YOUR FAMILY DOCTOR OF CHIROPRACTIC IS CONCERNED ABOUT THE GRAVE RESPONSIBILITY BEING PLACED ON EDUCATORS.



Every year, thousands of health problems in students of grade and high school level are first recognized by their teachers. Likewise, coaches and physical education instructors often detect health irregularities which might interfere with a child's physical performance and learning ability. Part of their jobs? Not really. It's that extra sense of dedication that makes these already overworked public servants give children that extra attention. The "school guardian" is responsible in many cases for the detection of potential health problems and the funneling of children to proper health authorities.

What most people don't know is that most health problems are far too complex for the teacher to note. And with a busy schedule, the educator can't be expected to have the time to screen problems that are beyond his or her scope of training, no matter how conscientious the teacher may be. The result: many children have health problems that retard their ability to learn or engage in sports effectively.

Here's what you can do:

- Parents should be urged to take more responsibility for their children's health.
- Parents and teachers should be alert to such things as changes in energy level, postural changes, moodiness, listlessness or any unusual signs that signal a problem that will impede learning. One of the observable signs is lack of interest in school activities.
- The structural balance of the child's body should be considered. The school teacher will no doubt note the child's posture, but that does not always indicate the structural integrity of the body. Comprehensive chiropractic examinations, including examinations of the spine, pelvis, neck and limbs should be recommended to avoid developmental problems.
- Incorporate posture awareness programs into your class projects. Write for suggestions and materials.



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