

AMERICAN FEDERATION OF TEACHERS
FALL 1985

AMERICAN Educator

The Making of a Profession



Make your classroom a Showplace of Creative Teaching

...just follow the ideas and instructions in **BULLETIN BOARDS**



SEASON'S GREETINGS

Follow the pattern on page 17 to create a holly border. Use an opaque projector to enlarge the reindeer pattern on page 48. Use the reindeer to post holiday greetings, assignments, or outstanding work.

Art Activity

Provide construction paper, scissors, white glue, and enlarged pattern pieces. Encourage students to create their own reindeer. Post their creations on the board or around the room.

SEASON'S GREETINGS

Idea Sheets

JOLLY HOLLY

Measure the perimeter of the board. Cut as many 18-by-3-inch strips as you will need. Fold each strip in half and then in half again. Photocopy or trace the leaf shown below, and cut out the shape. Place this pattern on your folded paper with the stem edge at the thick fold, and trace around it. Cut out and unfold.

From red construction paper, cut two circles one inch in diameter for each strip. Staple these berries directly to the board or glue them to the border where the leaf stems meet.

Border Patterns

Bulletin Boards you can create

Yours for 10 days FREE from Macmillan Instant Activities Program.®



With a week full of different classes, homework assignments, projects and problems—who has time to think up unusual new bulletin boards, let alone make them? That's why we did it for you. With Bulletin Boards.

BULLETIN BOARDS gives you all the concepts and patterns you need to make dozens of great displays. The "busy work" has been done for you. Just choose your theme, follow the step-by-step directions—and presto!—you have a splendid, instructive bulletin board. And each project has several related activity sheets designed to improve children's basic skills and encourage independent thinking.

This exciting new package is just one part of a unique teaching program. Designed for teachers of grades 3 through 6, the *Macmillan Instant Activities Program* is a series of fun-filled activity sets, each on a subject where you can use some extra help. Bulletin Boards. Reading. Grammar and Spelling. Math. Science. Creative Writing. And more.

Every set has 112, 8½" × 11" pages of activities, 3-hole punched for filing in the binder that comes FREE with this introductory package. You'll also get at least two special teaching aids for reinforcing each subject's activities. With Bulletin Boards, we've included enlargeable transparencies... and stencils of letters and numbers for boards with a professional look!

Start enjoying the benefits of this unique program by sending for Bulletin Boards, your introductory set. You'll be lighting up your classroom with holiday designs, creative calendars and wall exhibits, while the children have fun with the skillbuilders, activity centers and achievement awards. And of course, this and all following sets bear the seal of outstanding quality teachers everywhere have come to expect of Macmillan.

If the reply card has been removed, please write to: Macmillan Instant Activities Program, Dept. GAL8, P.O. Box 938, Hicksville, N.Y. 11802 to obtain membership information and an application.

American Educator Fall '85

Free

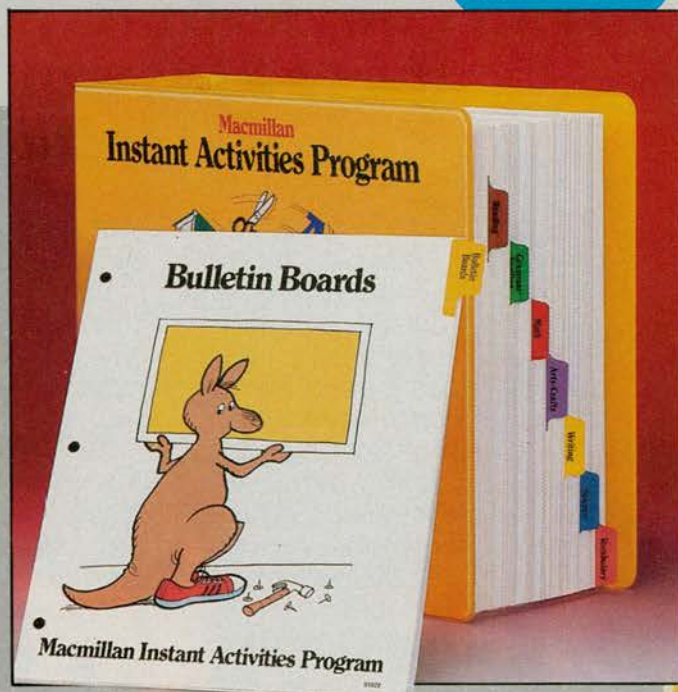
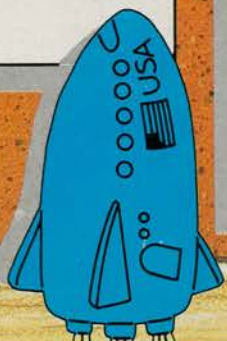
3-RING BINDER

(an \$11.95 value)

with Bulletin Boards for organizing and storing all your activity sets

Transparencies and Stencils

OPQ
STU
WX





With Commodore 128's instead of Apple IIc's, these kids would be on computers instead of in line.

Meet the Commodore 128.™ The new personal computer that's already destined to be at the head of its class. It not only outsmarts the Apple® IIc in price, it comes out way ahead in performance.

A lower price is welcome news to any tight school budget. But it's not the only way the 128 saves you money. You only need to buy one external disk drive to network eight Commodore 128's from a teacher's desk. The Apple IIc has a built-in disk drive.

That adds a built-in extra cost for a feature your classroom doesn't really need. There's even more to the Commodore 128 than being able to put more students on computers for less money.

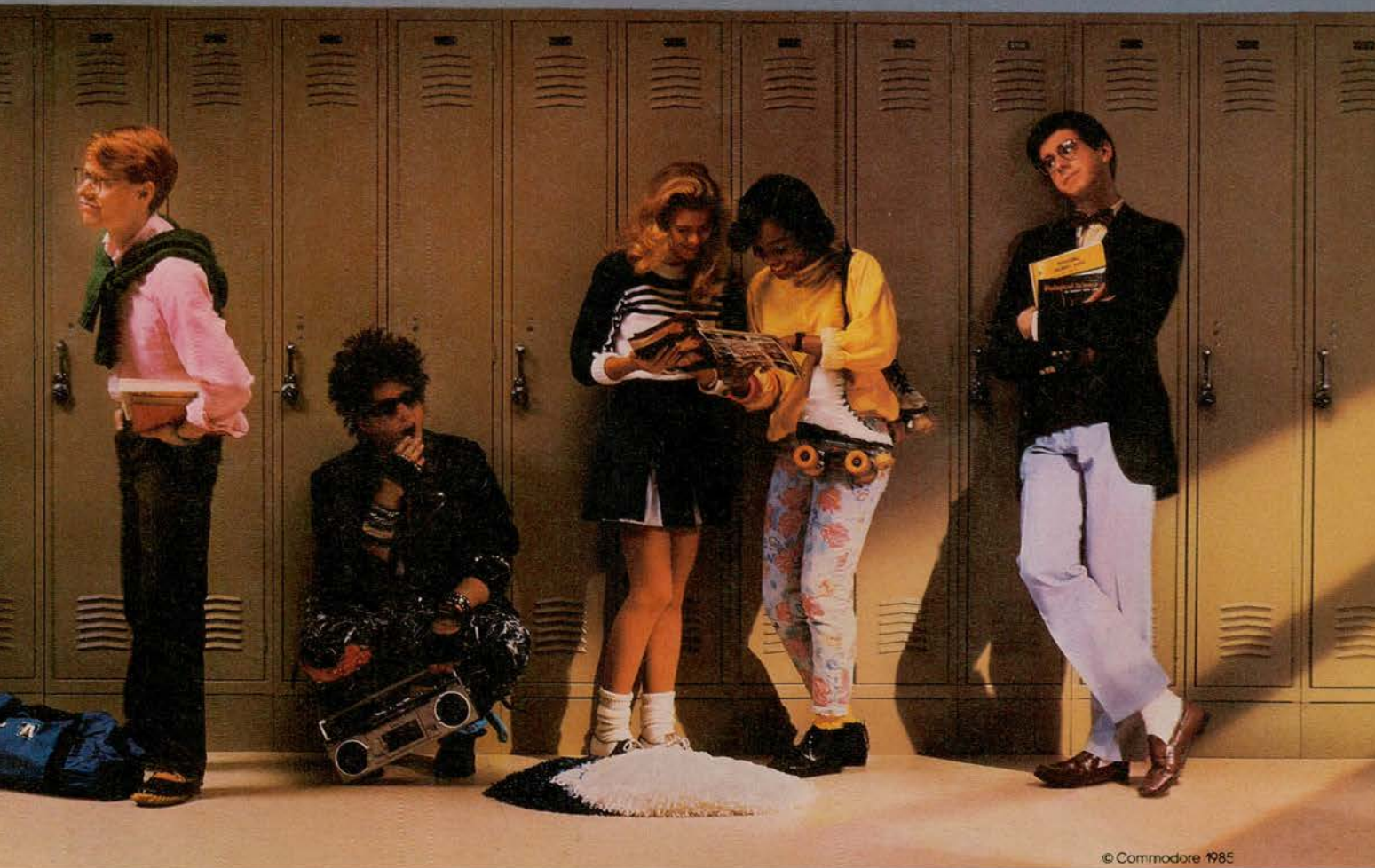
There's more intelligence.

As your students grow smarter, so does the Commodore 128. It's a computer they'll find more useful because it's capable of expanding from 128K to 512K memory. The Apple IIc doesn't expand, making

it less versatile. It also doesn't have the Commodore 128's expanded keyboard that offers more commands for easier programming and more varied use of graphics and text. Or a numeric keypad that's a real necessity when using a computer in math or science classes.

More software.

The Commodore 128 is one new personal computer you won't have to wait for software



© Commodore 1985

to catch up to. It's compatible with over 3,000 programs and peripherals designed for the Commodore 64™, many of which your school may have. And in the 128 and CP/M® modes, there are programs for students who want to get down to business and learn spreadsheets, file management or other professional uses.

More convenience.

Here's a feature you'll also find intelligent. Should anything go

wrong with your Commodore 128's, just call toll-free 800-247-9000. We have an exclusive school service agreement with RCA and over 600 independent service companies to give you fast repair.

When it comes to fitting more computers into a tight school budget, come size up the Commodore 128. For more intelligence, and a price that makes sense, you'll find it's one sure way to lower the cost of a higher education.



Program shown is "Reading Professor" from Commodore. © Commodore 1984

COMMODORE 128 PERSONAL COMPUTER
A Higher Intelligence

*Apple is a registered trademark of Apple Computer, Inc.
 ®CP/M is a registered trademark of Digital Research, Inc.

YOU CAN'T SOLVE TODAY'S FUNDRAISING PROBLEMS WITH YESTERDAY'S FUNDRAISING SOLUTIONS. OUR FRESH NEW IDEAS WILL EARN FAR BIGGER PROFITS FOR YOU!



In today's world of State and Federal cutbacks in aid to non-profit organizations, a growing number of churches, schools and organizations need to raise considerably more fundraising dollars than candy, magazine drives, carnivals and food sales can provide. Don't compete for limited fundraising dollars with the same overused programs as everyone else. This year, put **American Dream Fundraising's** fresh, new ideas to work for you.

The Nation's Premier Raffle Calendar Program

You've heard about our Raffle Calendars. Our complete program includes our famous 10" x 14" full color "**Visions of America**" calendars, brilliantly colored **Rainbow Raffle Tickets**, multi-colored promotional posters and flyers, *plus* 52 - 365 spectacular prizes from world famous companies such as **RCA, GE, Apple Computer, Polaroid and Sony**. The fast and easy way to raise \$15,000 - \$250,000.

America's Only Full Color Raffle Ticket Program

This complete fundraising program includes our beautiful **Rainbow Raffle Tickets**, colorful promotional posters and flyers, *plus* dozens . . . even hundreds of famous name prizes, including vacations, computers, VCR's, microwaves and color TV's.

Introducing . . . Fresh New Fundraising Ideas That Work!

With **The American Dream Fundraising Company** you'll always find the freshest new ideas in fundraising. **STUNNING FINE ART PRINTS** which sell for \$20 - \$30 in fine art stores. Your organization can sell them for \$5.00 and net \$2.50 each. **THE CADILLAC OF PROMOTIONAL CALENDARS**. Sell them or give them away. Promote your church, school or organization for a full year with the most beautiful calendar you've ever seen. **REVERSE RAFFLE PROGRAMS** complete with incredible prize packages. **AMERICA'S LOWEST PRICES ON BINGO SUPPLIES . . . AND MUCH, MUCH MORE!**

The American Dream Fundraising Company never charges any costs or fees in advance. Why not let us send you free samples of our beautiful fundraising products, or create a no-obligation proposal individually designed for your fundraising needs. **American Dream Fundraising** has the freshest ideas in fundraising *plus* the finest Prize Packages in the nation. **Call us Toll-Free today!**

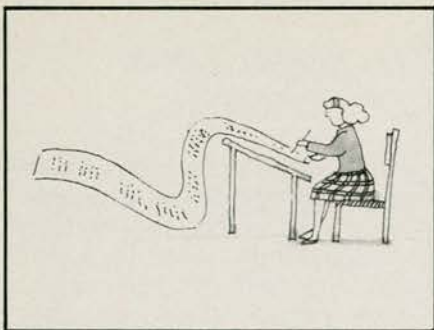
National Toll-Free Number: 1-800-952-4646

Ohio Toll-Free Number: 1-800-232-4646

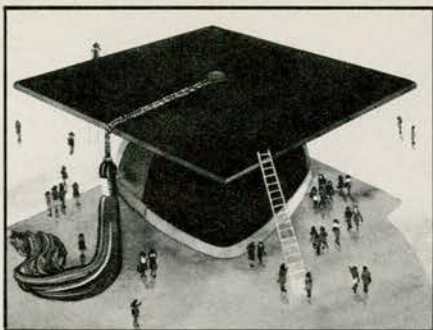
THE AMERICAN DREAM FUNDRAISING COMPANY

"THE FRESHEST IDEAS IN FUNDRAISING"

P.O. Box 18960 • Cleveland, Ohio 44118



PAGE 26



PAGE 30



PAGE 18

AMERICAN Educator

The Professional Journal
of the American
Federation of Teachers
Volume 9, No. 3,
Fall 1985

ALBERT SHANKER
President
American Federation of Teachers

Elizabeth McPike
editor

Mary Power Boyd
assistant editor

Wanda Bailey
secretary

Andrew Bornstein
design consultant

Peter Li, Inc.
advertising representative

Cover illustrated
by Dan Sherbo

Subscriptions: \$1.30 of AFT members' annual dues are designated for *American Educator*; \$2.50 per year for nonmembers.

Signed articles and advertisements do not necessarily represent the viewpoints or policies of the American Federation of Teachers, AFL-CIO.

American Educator cannot assume responsibility for unsolicited manuscripts.

American Educator is published quarterly by the American Federation of Teachers, AFL-CIO, 555 New Jersey Ave., N.W., Washington, DC 20001. Telephone: 202-879-4420.

General advertising office
555 New Jersey Ave., N.W.
Washington, DC 20001

American Educator is produced with the assistance of members of Local 2, Office and Professional Employees International Union, AFL-CIO, and members of AFT Staff Union. Composition and printing are done in 100 percent union shops.

© American Federation of Teachers, 1985.



NOTEBOOK	6
THE MAKING OF A PROFESSION By Albert Shanker <i>Despite significant gains teachers have made in salaries, fringe benefits, and working conditions, we still have not achieved the autonomy, responsibility, status, and compensation of other professions. To make teaching an authentic profession and to attract the best and brightest to our ranks will require fundamental change, a "second revolution" in American education.</i>	10
MULTIMEDIA EDUCATION: WHY PRINT ISN'T ALWAYS BEST By Patricia M. Greenfield <i>There is no substitute for reading and writing. But a multimedia approach to teaching—supplementing print with the newer media—can take advantage of each medium's special strengths.</i>	18
VIDEODISCS: THE THINKING PERSON'S AUDIOVISUAL By Frank B. Withrow <i>Want to practice your saxophone with the Marine Corps Band? Have instant access to the country's largest collection of art? Videodiscs—a blend of film and computers—offer a variety of new learning possibilities.</i>	22
'SEARCH' AND 'FAST FORWARD': HIGH TECH IN THE READING LAB By Janneke Bogyo and Anne Louise Fernbach <i>Two reading specialists tell how they used videodiscs to motivate students who had lost interest in learning.</i>	24
'I AM ONE WHO WRITES' By Lucy McCormick Calkins <i>Real writers plan and brood, write and revise, reflect and rewrite some more, and share criticisms with their fellow writers. When classrooms are turned into writing workshops where these processes are honored, even very young students become craftsmen of the written word.</i>	26
BUT CAN SHE COOK? OVERCOMING THE BARRIERS TO WOMEN'S EDUCATION A Review by Joyce Antler <i>At every stage of their advance along the corridors of academe, women have had to overcome conservative views about a woman's proper "place." The concern that higher education might undermine a woman's traditional role has frequently influenced the nature of her education and often restricted the use to which she can put it.</i>	30

Notebook

A POSITIVE REPORT TO PARENTS!

YOUR CHILD, _____:

(date) _____

- CONTINUES TO PERFORM WELL IN CLASS.
- MAKES A SINCERE EFFORT AND WORKS HARD IN CLASS.
- HAS GENUINELY IMPROVED AND IS WORKING BETTER IN CLASS.
- MADE AN EXCEPTIONALLY SIGNIFICANT CONTRIBUTION TODAY IN CLASS.
- IS CONSISTENTLY CONSCIENTIOUS AND ACCURATE IN DOING SCHOOLWORK.
- HAS BECOME MORE CONSCIENTIOUS AND ACCURATE IN DOING SCHOOLWORK.
- DOES HOMEWORK CONSISTENTLY, ON TIME, AND WELL.
- HAS IMPROVED IN DOING HOMEWORK.
- BEHAVES CONSISTENTLY WELL IN CLASS AND SCHOOL.
- HAS IMPROVED BEHAVIOR IN CLASS AND SCHOOL.
- HAS BEEN HELPFUL AND CARING WITH FELLOW STUDENTS.
- HAS AN EXCELLENT ATTENDANCE AND PUNCTUALITY RECORD.
- HAS AN IMPROVED ATTENDANCE AND PUNCTUALITY RECORD.



_____, TEACHER

(signature)

SCHOOL



This card is provided courtesy of the
PITTSBURGH FEDERATION OF TEACHERS.

THIS TIME, DEAR PARENTS, IT'S GOOD NEWS

Believing in the principle that good news should not be kept quiet, the Pittsburgh Federation of Teachers has made this postcard available in quantity to its members. The card provides a convenient way for a teacher to report any improvement or positive development or simply to tell parents that their child continues to do well in school. Is there a parent (or student) alive who wouldn't relish receiving one of these!

WHY DOES A BOOMERANG BOOMERANG?

"Newton's Apple," the award-winning public television science series, is offering off-air taping rights and free educational materials to help junior and senior high school students learn more about the topics it explores in its upcoming season.

Underwritten by Dupont and hosted by National Public Radio's science correspondent Ira Flatow, the series' purpose is to fire the viewer's natural curiosity and let him see that science is not only accessible but fascinating. Among the many subjects treated this year will be an on-location look at an astronaut in orbit. The year of Halley's comet will be celebrated by taking a closer look at these celestial bodies. Also in the series will be segments on earthquakes, dinosaurs, and the aerodynamic principles of a boomerang.

Teachers can order the classroom materials by writing to Larry Shulman, Tel Ed., Inc., 7449 Melrose Avenue, Los Angeles, California 90046.

TESTS AND TEXTS DON'T MATCH

Standardized achievement tests may underestimate what students actually know because students are frequently tested on topics that they have not been taught while they are taught topics they are not tested on.

This is the conclusion of a study conducted by the Institute for Research on Teaching at Michigan State University at East Lansing. The research team examined four of the most popular fourth-grade mathematics textbooks, four of the most commonly used standardized tests, and teachers' actual classroom practice to see if all fourth graders are taught and tested on pretty much the same math content. They found a surprising level of diversity.

The textbooks emphasized forty-two to fifty topics each, but only nineteen topics were emphasized in all four texts, while only six specific topics were emphasized in *all* the texts and tests analyzed by the researchers. Furthermore, the mismatch between what is taught and what is tested may be greater than these figures indicate because there simply isn't enough time in the school year for most teachers to cover everything in the text, nor do teachers normally present topics not treated in the text.

For parents who may be tempted to believe that standardized test scores are the best indicator of what is being learned in a given classroom or school district, Andrew Porter, who headed the research team, has this comment: "It is possible that the difference in scores results primarily from a mismatch between content taught and content tested. In the absence of a fully standardized curriculum or an agreement that the content of a particular test is the most important content for all students, any comparison or simple interpretation of student performance on standardized achievement tests must consider the match between content taught and content tested."

107 compelling reasons to choose U.S. News for your classroom

1. U.S. News delivers 1,000 more news pages a year than Time or Newsweek.

The editors of U.S. News are as serious as you are about giving your students a comprehensive view of the events that are shaping our world and our future.

2. U.S. News takes up where textbooks leave off.

The concepts and conflicts, people and places that your students read about in textbooks become real in the pages of U.S. News. Here is how government, politics, diplomacy, military power, economic theory and social reform actually work — and don't work — throughout the world.

3. U.S. News encourages critical thinking skills.

U.S. News reporting is always objective. With no editorializing. And no sensationalism. We try to present all sides of critical, controversial issues — often through interviews and pro/con debates with expert advocates of opposing views. As a result, your students get a balanced perspective and are encouraged to reach their own well-founded decisions.

4. Your students deserve "the best" newsmagazine.

U.S. News has been cited by the National Press Club for "best consumer journalism" . . . praised by the Overseas Press Club of America for "best reporting from abroad" . . . and named "the best

all-around newsmagazine" in a survey of high government officials conducted by the Washington Journalism Review.

5. You deserve the best news education program.

The free monthly Study Units you'll receive when you enroll in the U.S. News Education Program are prepared by teachers for teachers. And they are flexible, multi-level learning resources with some of the material intended for average and above-average students and some designed to accommodate and stimulate learners with below-average reading and comprehension skills.

For the past three years, the U.S. News Study

Units have won Distinguished Achievement Awards from the Educational Press Association of America. And a recent survey disclosed that 99% of the teachers using the program would recommend it to other teachers.

6. The price is right.

When you enroll your students in the U.S. News Education Program, each of them receives a personal copy at the lowest rate available to anyone, anywhere.

Of course, you will receive your own weekly personal copy of U.S. News with our compliments. Plus the free monthly Study Units.

U.S. NEWS
& WORLD REPORT

YES, rush my free booklet, "101 Ways to Use U.S. News", and send complete details on the U.S. News Education Program.

9XAB1

Name (please print)

School

Address

City State Zip

Mail to: U.S. News & World Report
Education Program
2400 N Street, N.W.
Washington, D.C. 20037

For fastest service, call toll-free: 800-321-7176.
9KGD2

7-107.

FREE!

101 more reasons to choose U.S. News for your classroom.

Clip and mail the coupon at left or call our toll-free number to get full details about the U.S. News Education Program and we'll send you a free copy of "101 Ways to Use U.S. News in Your Classroom."

This handy booklet can help you launch a variety of involving new classroom projects. It's yours without cost or obligation. A preview of the kind of help you'll be getting from U.S. News in the weeks ahead!

Academic Therapy Publications
 Addison-Wesley Publishing Co.
 Allyn & Bacon, Inc.
 The American College Testing Program, Inc.
 American Educational Computer, Inc.
 American Guidance Service, Inc.
 Aquarius People Materials, Inc.
 Arista Corporation
 Barnell Loft, Ltd.
 Berta-Max, Inc.
 Borg-Warner Educational Systems
 Career Publishing, Inc.
 Career Research Corporation
 CBS/E.P.P. (Holt, Rinehart & Winston)
 Children's Computer Workshop
 Chronicle Guidance Publications, Inc.
 The College Board
 Computer Resources Incorporated
 Computer Science Press, Inc.
 The Continental Press
 The George F. Cram Company, Inc.
 Curriculum Associates, Inc.
 Highlights for Children
 (Skillcorp & Zaner-Bloser)
 Houghton Mifflin Company
 Human Relations Media (HRM Software)
 Krell Software Corporation
 Laidlaw Brothers
 Learning Well
 Macmillan Publishing Company
 Marc Ed, Inc.
 McGraw-Hill Book Company
 Media Basics, Inc.
 Media Materials, Inc.
 Micro Educational Systems, Inc.
 Midwest Publications Company, Inc.
 Milady Publishing Corporation
 Modern Curriculum Press, Inc.
 C.V. Mosby Company
 National Evaluation Systems, Inc.
 New Century Education Corporation
 PESCO
 (Pleasantville Educational Supply Co.)
 Peterson's Guides

Radio Shack

DaPoma, Inc.
 dilithium Press
 DLM Teaching Resources
 Dorsett Educational Systems, Inc.
 EAS, Inc.
 Ecotran Systems, Inc.
 Educational Activities, Inc.
 Educational Testing Service
 EMC Corporation
 (Changing Times Education Service)
 Encyclopaedia Britannica Educational
 Corporation
 Evans Newton Incorporated
 Follett Library Book Co.
 Fried Publications (Pelican Software)
 Gessler Publishing Co., Inc.
 Ginn and Company
 Glencoe Publishing Company
 Harcourt Brace Jovanovich, Inc.
 Harper and Row Publishing Co.
 D.C. Heath Publishing Co.
 Pitman Learning, Inc.
 Prentice-Hall Media, Inc.
 The Psychological Corporation
 Random House, Inc.
 Scholastic Inc.
 Scott Foresman and Company
 Silver Burdett Company
 Society For Visual Education, Inc.
 South-Western Publishing Co.
 Steck-Vaughn Company
 Sunburst Communications, Inc.
 Sterling Swift Publishing Co.
 Sysdata International, Inc.
 TAB Books, Inc.
 TCE Programs, Inc.
 Teaching Pathways, Inc.
 Twin Oaks Publishing, Inc.
 Wadsworth Publishing Co.
 Walt Disney Educational
 Media Company
 John Wiley & Sons, Inc.

A Company Is Known By the Company It Keeps

How is Educational Software Developed?

Radio Shack is currently working in cooperation with over 80 major educational publishing firms—and the list keeps growing. As part of our commitment to education, we support these publishers in the development of courseware for our Tandy microcomputers—one of the most widely-used computers for classroom instruction. Through our relationships with these companies, we have established as our common goal the need to provide excellence in home, classroom and administrative software. We support an extensive development effort to provide quality software at all levels—from elementary through university, in a wide range of educational applications.

What About Training and Support?

Tandy Corporation/Radio Shack operates over 450 Computer Centers across the United States, and each center is equipped with a computer classroom and a full-time instructor. Normally, we charge tuition for each of the variety of training classes taught at those Computer Centers. However, for the past five years, we have offered teachers the opportunity to attend two BASIC computer programming classes and an Educators' Workshop without charge. Many teachers have taken advantage of this opportunity—over 400,000 to date—and we are continuing this offer with an updated list of classes. The Education Division has developed a number of its own educational software packages, working with curriculum development specialists and field test sites to bring you quality courseware for your classroom. Also, we have identified over 5,000 educational software titles for Tandy microcomputers.

Where Can I Find This Software?

We are aware that teachers need to see and try software before they buy, and because this

software is educational material for classroom use, we maintain a Courseware Preview Library containing samples and full documentation for many of our educational software products. Now teachers can preview these materials at over 450 Radio Shack Computer Centers. We also loan publishers the equipment to demonstrate their software at educational shows, conventions and sales presentations to schools. Many of these publishers have made their software available through our Educational Express Order Software program—a program that allows educators to buy "third party" software through their local Radio Shack retail outlet. This makes Radio Shack an excellent one-stop source of hardware and software for many schools. If you're serious about the quality software needed for successful instruction using computers in the classroom, call your Radio Shack Regional Educational Coordinator for more information.

For the name of the full-time Educational Coordinator in your area, call Radio Shack's Education Division at 800-433-5682 toll-free. In Texas, call 800-772-8538.

Radio Shack®

The Name in Classroom Computing™

A DIVISION OF TANDY CORPORATION

For more information about Radio Shack educational products and services, mail to:

Radio Shack, Dept 86-A-207
300 One Tandy Center, Ft. Worth, TX 76102

Name _____

School _____

Address _____

City _____

State _____ Zip _____

Telephone _____

THE MAKING OF A PROFESSION

BY ALBERT SHANKER

I HAVE spent more than thirty years arguing for unionism and collective bargaining, for better salaries and working conditions for teachers. We cannot abandon these goals — far from it — but today I am convinced that unless we go beyond collective bargaining to the achievement of true teacher professionalism, we will fail in our major objectives: to preserve public education in the United States and to improve the status of teachers economically, socially, and politically.

It is unusual for me to be advocating professionalism. My experience with the way the word *professional* is used in schools has not been good. There was the long battle of “professional” versus “unionist,” the idea that it was unprofessional for teachers to work to improve their salaries and conditions through effective organizing, militant struggle, and political action. That battle we’ve largely won. There was also the way the word *professional* was used so often to beat teachers down. A few examples from my early teaching experience will explain why I haven’t liked the term very much.

I can remember my first exposure to it as a teacher. I started teaching in a very tough elementary school. I had great doubts as to whether I would make it, and after a couple of weeks, the door was opened and the assistant principal stood there. I remember thinking, “Thank God, help is coming.” I kept motioning him in, but he continued to stand there, sort of pointing at something, for what seemed like a very long time but was probably only thirty seconds. Finally he said to me, “Mr. Shanker, there are a couple of pieces of paper on the floor over there. It is very unsightly and very *unprofessional*.” Then he left.

Albert Shanker is president of the American Federation of Teachers. This article is based on a speech delivered to the Representative Assembly of the New York State United Teachers on April 27, 1985.

Soon thereafter I went to my first faculty conference. In those days, not many men taught in elementary schools; there was only one other male teacher in that school. At the faculty conference, the organizational chart of the school was distributed, including a schedule of duties — who had hall patrol, lunch patrol, and so forth, including “snow patrol.” Snow patrol, by tradition, was assigned to the male teacher. On snow days, he gave up his lunch period and walked around outside the building, warning kids not to throw snowballs at each other. Sure enough, Mr. Jones and Mr. Shanker were now assigned to snow patrol. Mr. Jones raised his hand and was called on by the principal. The teacher said, “Now that there are two men on the faculty to handle snow patrol, would it be okay to rotate — you know, the first day of snow he goes, and the next day I go?” The principal frowned at him and replied, “Mr. Jones, that is very *unprofessional*. First of all, it is unprofessional because the duty schedule has already been mimeographed, as you see. Secondly, I am surprised that you aren’t concerned that one child might throw a snowball at another and hit him in the eye, with permanent damage. It’s very unprofessional of you.” So that was my second run-in with this new and unusual use of *professional* and *unprofessional*.

I have also distrusted the word *professional* because of how it was, and is, used so often to force teachers to obey orders that go against their sense of sound educational practice. Professionalism, in this Orwellian sense, is not a standard but a threat: Do this, don’t say that, or else.

In spite of this unfortunate history, we should not be forced to abandon a perfectly good word because others have misused it.

I mean *professional* in its more rigorous, classical sense. A professional is a person who is an expert, and by virtue of that expertise is permitted to operate fairly



THE
TEACHING
PROFESSION

Shelbo

independently, to make decisions, to exercise discretion, to be free of most direct supervision. No one stands over a surgeon at the operating table with directions to cut a little to the left or to the right. The surgeon is trusted to make appropriate medical decisions, and because of that trust and the expertise involved is generally very well compensated.

Unfortunately, professionalism for teachers is still not a question of the right or wrong thing to do but, rather, of who has the power to tell whom what to do. Teachers are still a long way from being members of a profession, as many of us and the larger society understand that word.

I BELIEVE that the realization of authentic professionalism for teachers will require a second revolution in American public education, one that builds upon the revolution we in the AFT made a quarter of a century ago when we pioneered collective bargaining for teachers. Collective bargaining has been a very powerful instrument. Through it we have increased teachers' salaries, limited class size, removed some of the more onerous nonteaching chores, established an impartial procedure for the resolution of grievances, given teachers a powerful political voice in their communities and in the country, and much more. Surely we cannot abandon it; if teacher salaries have slipped in recent years in relation to those of other occupations, think of how much more they would have slipped without that collective strength. Teachers need and must jealously guard the right to bargain collectively. And, yet, we have not been able to achieve all that we had hoped for through the bargaining process, and it is now time to go beyond it to something additional and quite different.

We learned early on that the negotiation process would not meet all of our needs. In New York City — and I daresay everywhere that a union represents teachers — we would go through a long process of listening to our members, usually at lunch and afterschool meetings. We collected bargaining “demands,” the items teachers wanted, often as many as seven hundred or eight hundred. While some of these dealt with salary, class size, and similar issues, many more had to do with professional matters, the items different groups of teachers — math teachers, English teachers, physical education teachers, and others — wanted that would make their professional lives more satisfying.

Collecting the demands was one thing, getting them addressed, another. We went to the bargaining table under the assumption that boards of education would resist the salary demands but be open to a discussion of ways to reorganize the schools so that teachers and children would be happier and more productive. But quite the opposite was the case. Typically, the school board said: “You’re a union. We’ll be happy to talk with you about the salaries and working conditions teachers want. But we will not talk to you about anything that’s good for children, because you weren’t elected to represent the children. Professional issues are not subject to negotiation.”

And so there we were. Teachers had gone from being weak and unorganized to being strong, unionized employees with considerable power. But many of the issues we wanted to deal with could not be taken up at

the negotiating table. Substantial improvements were made, but they fell short of creating the professional workplace that our members wanted then and want today.

If we are to achieve that professionalism, we have to take a step beyond collective bargaining — not to abandon it, but to build on it, to develop new processes, new institutions, new procedures that will bring us what teachers want in addition to what we get from collective bargaining: status, dignity, a voice in professional matters, the compensation of a professional. The question for us is: How do we get there, how do we achieve professional status, responsibility, and salaries for teachers?

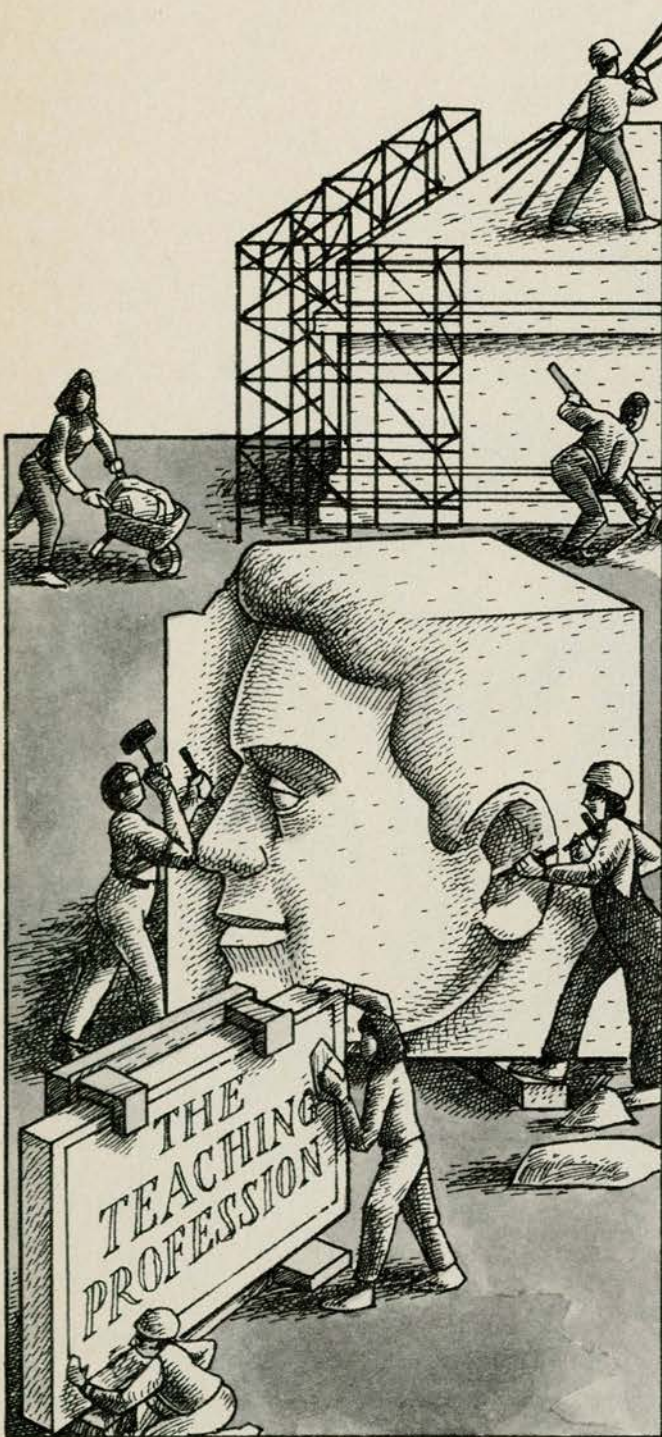
AMERICAN WORK and American workers have changed dramatically in the last thirty years or so, as those of us who served on the AFL-CIO Committee on the Evolution of Work learned in the course of our research. If I had asked my parents, “Why are you working?” they would have thought I was crazy. The only reason they were working was to feed and clothe and shelter the family. It never dawned on them to think of a job primarily in terms of pride or satisfaction. Today, however, the answers pollsters get when they ask the question are quite different. The first response is not “because I have to earn a living.” Instead, people say something like this: “because I’m able to express various interests that I have through my job”; “because I get satisfaction”; “because I am respected on the job”; “because I’m allowed to do my work the way I think best, and I do it very well, and I like that.”

Moreover, when the pollsters went further and asked what workers thought of the boss, the answers were even more surprising. The expectation was that there would be a fair amount of hostility expressed. On the contrary, roughly 70 percent of all employees in the United States say that their boss is good to work for, helpful when presented with problems. They like working at their jobs. They think well of unions — but only for the worker down the block who has a rotten boss, not for themselves. They believe unions create adversarial relationships that bring rigid rules in their wake. Before you know it, says the typical worker, I won’t be able to exercise the judgment that I now exercise; the rules will infringe upon my ability to do my job well, and I won’t get the same amount of satisfaction from it.

So, more and more frequently in the industrial world, workers — and they are educated workers these days — are being treated with dignity and respect. But not in the educational workplace — and not teachers. Teachers are not accorded the trust and confidence that are becoming routine in the modern factory; our schools are the last bastions of the rigid nineteenth-century industrial hierarchy. Two recent efforts at major overhaul, one in education, the other in the automobile industry, are worth comparing.

As the education reform reports were being issued, the California Business Roundtable, composed of the chief executive officers of the eighty or so largest corporations in that state, persuaded the legislature and the governor to enact major new education law. The state came up with \$2.7 billion in new money for education over a two-year period, badly needed in the wake of

No one stands over a surgeon at the operating table with directions to cut a little to the left or to the right.



Proposition 13 — but also with a piece of legislation 150 pages long that prescribed for teachers what textbooks to use, how many hours students should be instructed in this subject and that subject, virtually everything that teachers were expected to do. There is no other occupation that is regulated in this way by state legislatures, and California is by no means unique. The Regents Action Plan in New York and the Part 100 Regulations designed to implement it suffer from the same apparent lack of confidence in teachers, as do similar plans in other states. (Some of this, of course, probably stems from the thinking that anyone willing to work for the typically low salary paid to today's teacher bears careful watching!) The hazard of this approach, aside from the demoralization it creates within the ranks of existing teachers, is that no bright, young, self-directed college graduate will want to become a teacher, to enter a field in which there is little opportunity to exercise judgment or to make professional decisions.

The American auto industry, on the other hand, has learned a valuable lesson from its Japanese competitors. Instead of supervising workers to death, rewarding the good ones and firing the bad ones — and later recalling the automobile lemons that this poor procedure manufactures — Japan treats its workers differently. It accords them lifetime job security and involves each and every one of them in constantly trying to make the *system* of production better. The result is that the Japanese, carefully consulting those who actually do the work, have discovered how to make the product right to begin with, which is far less expensive than the recall/remake process that American cars have gone through.

A COUPLE of years ago, Myron Tribus, director of the Center for Advanced Engineering Study at M.I.T., wrote an article entitled "Deming's Way" about the ideas of W. Edwards Deming, the father of Japanese quality control. It appeared in the Spring 1983 issue of *New Management*, published by the Graduate School of Business Administration at the University of Southern California. The Deming manager, Tribus wrote, "believes that he and the workers have a natural division of labor: They are responsible for doing the work *within the system*, and he is responsible for *improving the system*. He realizes that the potentials for improving the system are never ending, so he does not call upon consultants to teach him how to design the 'best' system. He knows that doesn't exist. Any system can be continuously improved. And the only people who really know where the potentials for improvement lie are the workers themselves. . . .

"Under 'Deming's Way,'" Tribus continued, "the manager understands that he needs the workers not only to do work but to improve the system. Thus he will not regard them simply as flesh and bone robots, but as thinking, creative human beings."

American industry is catching on. There is a true story about a Ford small truck plant that was so bad it was about to go out of business. But before closing it down, Ford decided to try the Japanese method. It would ask each worker what was wrong, how the procedure and the product could be improved. For example, one of the

managers approached a worker who was working in a pit. He had a fairly heavy tool; and every fifteen or twenty seconds or so as a new truck came above him on the assembly line, he would pull the trigger on the tool and tighten a bolt. The manager came up to him, and the conversation went something like this:

Manager: "Look, this place is going to close down soon unless we improve. So you've got nothing to lose, and I'm asking all the workers here about things that go wrong. Tell me honestly, Jack, when you try to tighten these bolts, do you ever miss?"

Jack: "Yes."

Manager: "How often do you miss?"

Jack: "Well, about every six minutes or so I don't tighten one of the bolts."

Manager: "Why is that?"

Jack: "Well, it's a very hard job. You have to keep looking up all day and holding the tool, and I get a crick in my neck. And every once in a while, I get a muscle spasm and my head jerks away so that I can't look up; and when the spasm has passed, so has the truck, and I haven't tightened the bolt. I feel bad about it, but there's nothing I can do."

Manager: "Do you have any ideas about what we can do?"

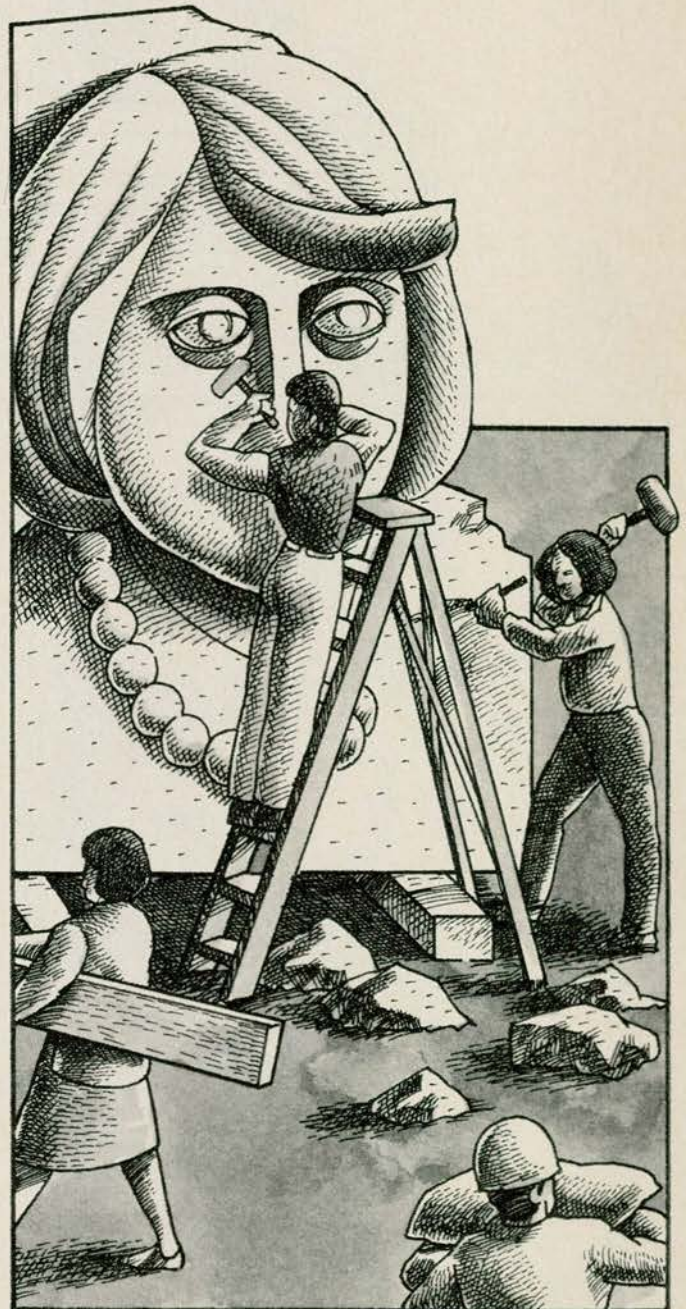
Jack: "Yes. I've been thinking about this for a long time. There are really two things you can do. One is to put a little pedal under my foot so that every time I feel a crick in my neck I press the pedal and the assembly line will stop for a second; and as soon as I shake off the crick, I would tighten the bolt. Of course, it would mean that every six minutes or so the assembly line would stop for a couple of seconds, but you would get all the bolts tightened. And the other thing is — could you have me standing on top of the truck holding this tool down, because that would be a lot easier and a lot more natural than looking up and holding the tool up?"

That's what the Ford management did in that plant. It went around to all the workers and sought their ideas about solving problems. And then Ford redid the entire plant in accordance with the wishes of the employees. The result was that the plant became the best in the entire Ford Motor Company anywhere in the country. It's a classic case.

HOW MUCH of that happens in schools? When a decision is made to change anything about the organization of a school, the curriculum, the materials, or anything else, that decision is made by legislatures, state education departments, school boards, superintendents, principals. And as long as those who govern schools keep making this same mistake in thinking — that all they have to do is have supervisors watching the teachers to see who's good and who's bad and reward some and punish others — they're going to keep having the failures and the "lemons" who are "recalled" for remediation and dropout prevention. The only thing that's going to turn the schools around is to start turning the decision making as to what works and what doesn't work over to the people who are actually doing the work and know what's happening in classrooms.

The major struggle in education over the next period will be to attract and retain good teachers; and unless there is this kind of change, we will lose it. Even if we

The major struggle in education over the next period will be to attract and retain good teachers; and unless there is fundamental change, we will lose it.



were to get better salaries and some improvement in working conditions, intelligent, well-educated people today, people who have other options, will not work for long in a traditional type of factory. The future of education depends very heavily on making teaching a profession and giving teachers a modicum of control over their environment.

WHAT DOES it mean to have a profession, to be a professional?

First, you cannot have a profession without high standards. Standards for entering teaching today are not very high, nor are they perceived as being high. College professors will steer the brighter students away from careers in teaching because they're "too smart for that." One of the reasons we are not getting our share of such students is because they don't want to go into an occupation that reputedly anybody can get into, where the rites of passage are perceived as easy, undemanding, and where the job itself is often a way station on the road to something else. If I were the president of the American Federation of Ex-Teachers, I would have a much larger constituency. There are more ex-teachers than teachers — sometimes it seems that everyone out there, everyone I encounter when I walk down the street or check into an airport or do a television interview is an ex-teacher. Why is that? How many ex-surgeons are there? How many people go through the trouble of becoming an actuary and then decide to do something else? As was the case with other occupations on the way toward professionalization, raising the standard of entry will attract many of the higher-caliber young people who are gravitating toward other careers. Indeed, there is beginning evidence that in states that have increased entry standards for teachers, more people with more solid academic credentials have applied to teach than in previous years. High standards would also mean an end to the practice of certifying any warm body to teach on an "emergency" or "provisional" basis. It's not tolerated in any other field and should not be in teaching.

Second, there is no profession without a knowledge base. I have not suggested that we should take the power away from school boards and superintendents and principals because we're teachers and we want more power; that isn't it at all. We ought to have the power to make educational decisions because we *know more* — more about what is right and wrong to do in the education of children, more about what distinguishes a good textbook from a poor one, more about a wide range of issues in education. Some of this knowledge base we do possess, some we don't yet and ought to develop. Raising standards requires expanding the knowledge base and demonstrating that we have it.

Third, there is no profession without a well-established, formal set of collegial or peer relationships. While there is a great amount of satisfaction in working with children, unless classroom time is supplemented by the different rewards, learning experiences, and self-regulation that come from a relationship with colleagues, it leads to extreme isolation and drives many out of the classroom and the profession. The current structure makes such collegiality virtually impossible.

Professional self-regulation is dependent upon a well-developed peer structure. Doctors do not have an absolute right to do anything they want. No doctor is going to say to you: "Well, any other doctor would give you the following pills and that would take care of the problem, but I don't like that — it's boring — so I'm going to give you something different and see what happens." Doctors don't behave that way. They act in accordance with a knowledge base and in accordance with what their peers expect on the basis of that knowledge.

Fourth, there is no profession unless the practitioners are seen as acting in the interest of their clients. Here we have a problem. At one time we were viewed as quite powerless, given flowers for our lapels on Teacher Recognition Day, patted on the head. Then along came this adversarial procedure known as collective bargaining. The pendulum has swung, and virtually no one now views teachers as being patable on the head — the pooch barks, and even bites. We tend to be viewed today as though we are acting only in our own self-interest, wanting better salaries and smaller classes so our lives can be made easier. (The public rarely considers that what we want may be good for children.) That image is standing in the way of our achieving professional status, for not only must we act on behalf of our clients, we also must be perceived as acting that way.

WE HAVE a decision to make. We can continue working away only at collective bargaining. But if that is our decision, I predict that in ten or fifteen years we will find that we have largely been on a treadmill. In good years, we will make some gains; and in bad years, we will have to work very hard just to stand still. Right now there is low pay, linked to low standards, linked to an absence of trust; because supervisors and the public believe that you can't trust people who are willing to work for so little and have been brought in on low standards. All this leads to an excess of supervision and to generally low prestige.

On a national basis that's where teachers are in mid-1985. This situation has to be changed. Teachers must be viewed as professionals, as experts whose judgment can be counted on, as a group that acts on behalf of its clients and takes responsibility for the quality and performance of its own ranks.

There are some steps that ought to be taken to achieve these goals. Some of them teachers can take themselves, others will require policy action. The ideas I will list are not exhaustive, but they are a beginning. Some of these proposals are in a very formative stage. They do not represent official policy of our organization. I offer them as ideas for discussion and debate, revision and enlargement.

1. A National Teacher Examination

Last January, I proposed that there be a rigorous, national, entry-level examination for teaching, similar to those for the bar and for medicine. This would not be a government examination. Rather, it would be devised initially by a commission composed of outstanding people in education and perhaps similarly qualified people in other professions who have had some experience in

administering professional examinations. Ultimately, there would be a national Teacher Professional Practices Board, composed of the practitioners themselves, to update and administer the exam; but at the beginning, it would be useful to have well-known experts, so that the examination would get wide publicity that would increase the pressure on states and local districts to require it for certification.

The exam would consist of three parts. First, there would be a stiff test of subject matter knowledge that would require candidates to think and to write and to organize their thoughts and be able to persuade. The second part, probably given on a different day, would test knowledge of pedagogy, educational issues, the ability to apply educational principles to different student developmental needs and learning styles. The third part of the examination would be a supervised internship program of from one to three years in which teachers would actually be evaluated on the basis of how well they work with students and with their colleagues. This careful induction process also would be invaluable to beginning teachers and would stand in sharp contrast to the sink-or-swim atmosphere into which they are now thrown.

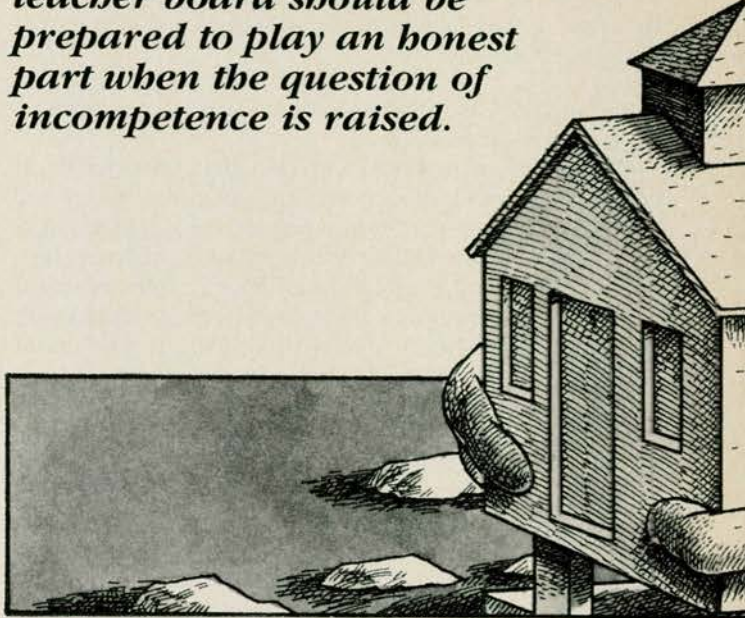
With the exception of "A Nation at Risk," nothing in education in the past five or six years has gotten as much attention and editorial support as my proposal of a demanding national examination. But aside from having touched a sensitive public nerve, the idea is getting support because we have put ourselves and our union on the line on behalf of it. In my speech to the National Press Club, I said that within a few years after the establishment of such an examination, the American Federation of Teachers would refuse to accept into membership any newly hired teacher who had not passed the exam. I was signalling the public that we, the teachers, care about the quality of teachers, that we care about what happens in schools, that we are even prepared to make an organizational sacrifice in terms of not recruiting into membership or collecting the dues of people who do not meet high, professional standards.

2. Expanding Choices for Parents, Students, and Teachers

Second, I believe that we in the teacher union movement ought to support the greatest possible choice among public schools for parents, students, and teachers. Offering parents and students more options is not the same thing as conferring legal rights or instituting some sort of voucher system. In fact, the more public school choices we offer parents and students, the better are our arguments against destructive schemes like tuition tax credits and vouchers. And surely a competition among public schools, where everyone competes under the same ground rules, is a lot healthier than a private versus public competition, which is inherently unequal and unfair because the rules don't apply to all.

The current system of placing kids in school on the basis of geography is one that was designed a long time ago, when most people who sent their children to school were not educated and wouldn't have been able to make an informed decision about a school; parents looked up to teachers and accepted the authority of government. But times have changed, and much of the

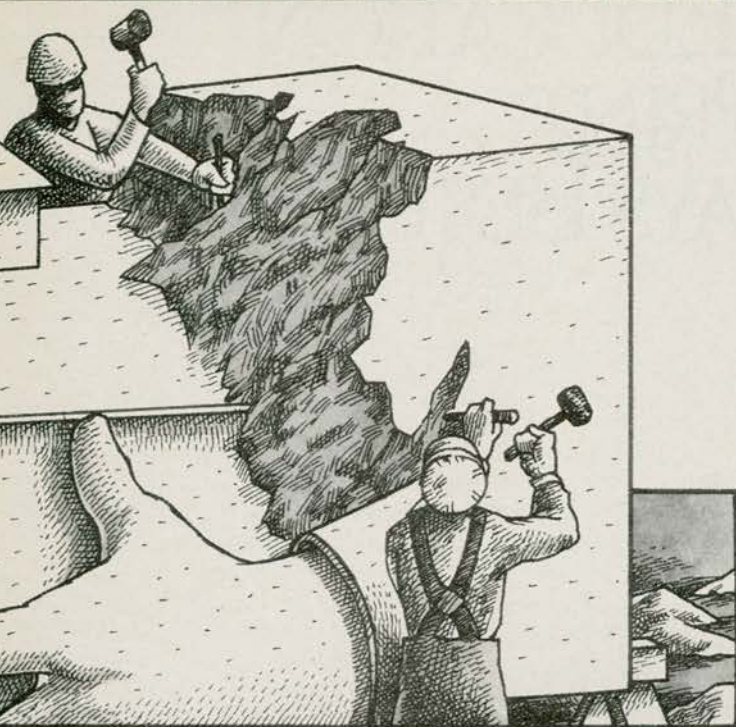
Like other professional boards, the professional teacher board should be prepared to play an honest part when the question of incompetence is raised.



public is just as well educated as teachers, some more educated. The day of automatic agreement that one's child will attend such and such school is over; parents shop for public schools when they move to a different community, and many will seek nonpublic alternatives if what they regard as a decent public school is not available to them. Students who drop out or attend high school only sporadically may be telling us not necessarily that they don't want school at all but that they don't want the particular school they're going to. Attendance is much higher and dropout rates are much lower in those public schools — vocational and option academic high schools — that students themselves have chosen.

Increased public school choice also relates to the idea that a professional must be seen to be acting in the interests of the client. Most clients *choose* the professionals they see — a doctor, a lawyer, an accountant. Children are the only clients who are perceived as the captives of the professionals who deal with them. Expanding public school choice — within schools, among schools in a district, among districts — would therefore go a long way toward getting rid of the notion that children or parents are captives and would also enable teachers to develop distinctive programs and a wider range of educational styles.

Teachers also need and deserve another kind of choice. Teaching may be the only occupation in this country in which, if you move voluntarily from one place to another, you have to suffer for it because almost invariably the new district will not credit more than a fraction of your prior experience toward salary. You may also lose pension credit. Teaching is the only occupation you have to leave in order to improve your lot. One of the elements of widening choice in public schools, therefore, ought to be freedom for teachers to move around without penalty. Just as we ought not to lose students to private schools because of lack of sufficient choice in public education, we ought not to lose



teachers to other jobs because they have no real mobility in teaching. (Of course, in failing to grant full credit for prior public school experience, school districts also prevent themselves from competing for talented teachers from other districts. I don't know of any business that could stay open very long if it denied itself the opportunity to compete for talent.)

3. A Professional Teacher Board

One of the things we might do to bring about the needed revolution does not require local, state, or national legislation. We could create — perhaps first through a coalition of locals, then regionally within a state and eventually even on a statewide basis — a “Professional Teacher Board.” It would be made up of outstanding teachers, selected through a process that we would develop. The board would be independent, even though initially appointed by the union, in the same sense that the Supreme Court of the United States is independent even though the justices are appointed by presidents — and most presidents have been surprised by the actions of their appointees.

The purposes of this professional board would be many. Let me suggest a few:

- Like other professional boards, it would develop standards and an ethical code for teachers. It would, for example, administer the national examination on a state level. It could inspect the practice of out-of-license teaching, which usually is inimical to the idea of high subject area qualifications determined by examination. It could determine that, beyond ascertaining that the truth has been fairly reached, a union does not have the obligation of defending a teacher against discharge based on immoral or criminal conduct.

- The board could handle various types of complaints from parents. For example, is a teacher propagandizing for a particular point of view rather than teaching the

various sides of a controversial political issue objectively — that is, teaching students to think? To what extent, in such cases, is academic freedom infringed upon?

- The board could set up procedures to evaluate textbooks and other instructional materials. Textbook selection is a national disgrace. Textbooks are selected by school boards who have little knowledge of what to look for. Teachers who have studied the new knowledge base about textbooks (and others who will) should be able to stand up before a school board or other body and demonstrate what's right and what's wrong about a textbook from a highly authoritative standpoint, much as a doctor or lawyer might explain the fine points of a case to a group of laymen. This kind of knowledge is power. Its demonstration would earn for teachers the kind of professional respect that precedes professional empowerment.

- Finally, like all other professional boards, the professional teacher board should be prepared to play an honest part when the question of incompetence is raised. If a teacher is brought up on charges of incompetence, the board ought to select three outstanding teachers from somewhere else in the state to observe the teacher so accused and issue an independent report that evaluates the judgment of the principal or other supervisor. Of course, in order for this procedure to work, the three teachers have to be absolutely independent, the only direction from the union being that they're on jury duty as professional jurors and are to call it as they see it as teachers and as professionals.

What I am talking about is a process of peer appeal. The teacher would still have the right to a hearing panel and to go to court. But I see four possible scenarios that might be played out:

- (1) both the teacher and the supervisor agree in writing that the decision of the teacher review panel is binding;

- (2) the teacher agrees but the principal refuses, in which case the refusal of the principal to allow a trio of outstanding teachers to review the decision should be taken into account by any existing panel of law;

- (3) the principal agrees but the teacher refuses, in which case that refusal ought also to be taken into account by the existing panel of law; and

- (4) both parties refuse, in which case existing procedures are followed without the intervention of the teacher review panel.

I am not proposing an abandonment of due process. Due process means that the decision of the supervisor is subject to outside review. I am suggesting that outstanding professionals from within teaching but from outside the immediate situation are just as equipped as — indeed, probably more so than — a panel of outside lawyers or other citizens to do an honest and professional job.

This could, of course, be the most controversial function of the teacher professional board, but we do not have the right to be called professionals — and we will never convince the public that we are — unless we are prepared honestly to decide what constitutes competence in our profession and what constitutes incompetence and apply those definitions to ourselves and our colleagues.

(Continued on page 46)

MULTIMEDIA EDUCATION: WHY PRINT ISN'T ALWAYS BEST

BY PATRICIA M. GREENFIELD

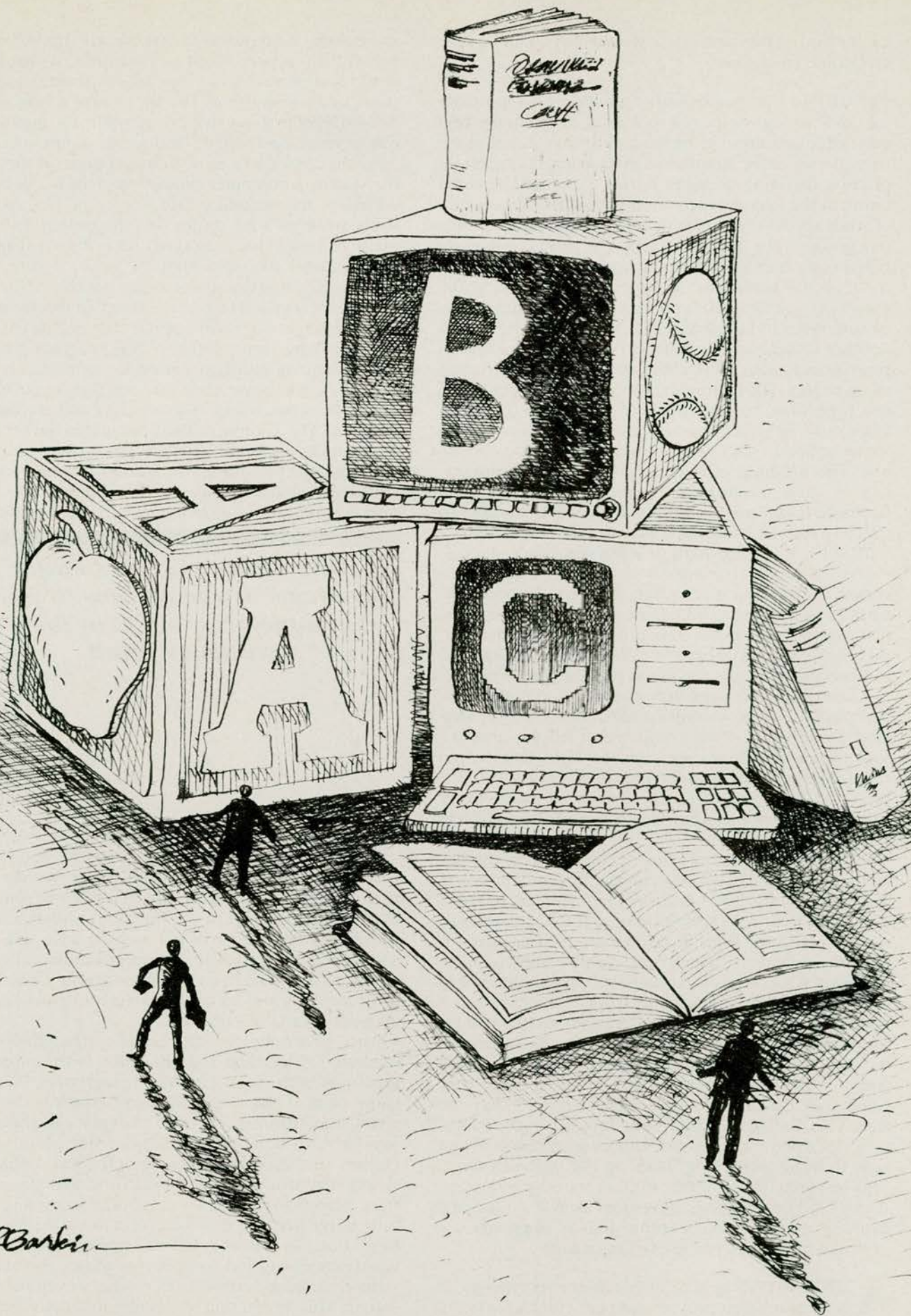
FOR MANY people, print — reading and writing — is still the hallmark of education and the standard against which all other media tend to be measured. Those with this view often perceive television, film, and the newer electronic media as a threat to print. Each medium, however, has its own profile of cognitive advantages and disadvantages, and each medium can be used to enhance the impact of the others. It makes little sense to treat print as if it is best at everything.

My theme is that each medium has a contribution to make to education and human development. One medium's strength is another's weakness; thus, the media are complementary, not opposites. For example, film or television emphasizes action and simultaneous events. Print, in contrast, emphasizes a linear, sequential relationship between ideas or events. Thus, to receive information on the same topic through different media is to learn about the topic from different points of view. The newer media should, of course, not be allowed to take the place of reading and writing for our children,

Patricia M. Greenfield is professor of psychology at UCLA. Her book, Mind and Media: The Effects of Television, Video Games, and Computers, elaborates upon the ideas in this article. Mind and Media is part of the "Developing Child" series published by Harvard University Press and is available through bookstores or may be ordered from the Press at 79 Garden Street, Cambridge, MA 02138; \$4.95 paper, \$12.50 hardcover, plus \$1.50 postage and handling.

but we must begin to think more seriously of moving from domination by a single medium to an increasingly multimedia education system.

A multimedia approach to education has four major advantages: First, as the literature on media in education consistently shows, a multimedia approach to a subject can be a more effective way of teaching than a single medium in isolation. One likely reason for this finding is that each medium is good at presenting certain types of information while relatively poor at presenting others. Therefore, a multimedia presentation of a subject provides a more complete informational picture than any one medium alone. Second, since each medium emphasizes certain ways of thinking and modes of perception, multimedia education can help children develop new skills, skills that print alone does a poor job of fostering. Third, television, film, video games, and other computer technology are here to stay. We don't have the option of eliminating them from children's lives during their nonschool hours. But we do have the opportunity for influencing children's use and perception of the different media, making their responses more active, more sophisticated, more critical. Just as the value of print gains enormously from critical classroom discussion, so too can the other media. Fourth, bringing the electronic media into the schools could capitalize on the strong motivational qualities that these media have for children. Many children who are turned off by school are not turned off by one or another of the electronic media; quite the opposite. An educational system that



R. Barker

capitalized on this motivation would have a much greater chance of success.

THE QUESTION of whether a multimedia approach to learning is superior to a single-medium method was systematically explored in a study that looked at the role of computer simulation in teaching high school physics. Experiments were set up that could be done either in the laboratory or on the computer. One group of students did the experiments on the computer only; one group in the laboratory only; the third group combined computer and lab, doing one trial of each experiment in the laboratory as an example but using the computer to collect data for analysis. The combination of computer and lab was most effective for the largest number of outcome measures: This group was able to reach conclusions more effectively and had the highest exam scores. The computer alone was most effective in teaching how to investigate relationships between laboratory variables. The laboratory-only group was not superior to the other two groups on any outcome measure. The teaching of science provides numerous examples of the advantages of adding nonprint media to the more traditional methods of instruction. Because so much of science involves action and transformation — whether it be cell growth or a physics experiment — video or film, with their moving visual imagery, are well suited to presenting scientific material. A classic example is a film using time-lapse photography to show plant growth. In such a film, physical transformations, invisible to the naked eye and difficult, if not impossible, to describe in words are made real for the learner.

Likewise, video can be very useful in teaching manual and physical skills — trades, crafts, sports, etc. In England, filmed motion was compared to still pictures as a way to teach children ages four to eight how to put together a complex wooden puzzle. While the still pictures did help some (compared with no instruction), the filmed demonstration led to the greatest success with the task.

Another advantage of visual media involves the key element of retention of information. Research indicates that audio and printed material stimulate the imagination more than does television or video. Lacking visual images, audio and print “leave more to the imagination” than does television. This irreplaceable quality is one of the many reasons we so strongly encourage children to develop listening and reading skills. Yet our research also shows that the very visual imagery that is bad for imagination activity is good for memory. For example, we find that if children are presented with the same story in an audio version and a video version, they remember the main points better from the video version. This finding has important implications for education, since one of the teacher’s major problems is always how to make something “stick” in the student’s mind. This research indicates that student learning and retention would benefit from movement away from the oral language emphasis in classroom activity to greater use of visual media such as television or film.

A DISTINCTIVE quality of computer technology in general is that it provides an opportunity for learners to interact with complex, dynamic systems, as in

simulations. Computer simulations are, therefore, well suited for teaching about any complex, dynamic real-world system such as a corporation, a battle, a government or an ecosystem. The simulation allows the student to alter, in a way that print cannot, the condition of one or more components and see the consequences or possible consequences of this alteration on the rest of the system. A computer simulation of the major military events of the second world war could, for example, show students what might have happened if the Germans had captured Stalingrad or if they had invaded Britain rather than attacking the Soviet Union.

One of the first simulations to be developed for young children was called Lemonade Stand. In this simulation, you, the player, start with supplies for making lemonade (provided by your mother). The program gives you information relevant to consumer demand for lemonade (such as a weather forecast), and you have to decide how much lemonade to make and at what price to sell it. The computer then calculates the profit you would make under those conditions. In later turns, your mother stops providing you with sugar, and your decision making must also take the fluctuating price of sugar into account, the goal being to maximize profit.

One of the teacher’s major problems is always how to make something ‘stick’ in the student’s mind.

This simulation builds on a real-world model that is familiar to many young children, the lemonade stand. However, it should enable children to go beyond their everyday knowledge of the model to understand relationships between variables such as cost and profit, supply and demand. The computer simulation enables children too young to comprehend abstract discussions of profit, loss, and so on to learn through *doing* how economic variables operate.

Another example of the relative strengths of each medium for learning and education is the interactive quality of both video games and computers. In a video game such as Pac-Man, the player controls the major character and influences what takes place on the screen. Similarly, in a battle simulation, the player makes choices that affect the outcome of the war. Unlike television, where information flows in one direction only — from screen to viewer — computer technologies are interactive because they involve a two-way flow of information. In some computer applications, such as word processing and computer graphics, the child has virtual complete control over what develops on the screen. This interaction forces children actively to create stimuli and information, not merely consume them.

As Piaget and many others have pointed out, active learning is more effective than passive, and computer technology is an ideal medium from this particular perspective.

IN MY experience teaching developmental psychology to university undergraduates, I have found the various media to be complementary. I use audio recordings to present experiments that are primarily verbal in nature. I use film and video to show children's behavior and reactions at different ages and to show environmental settings that would not otherwise be accessible to most students. For example, it is virtually impossible to describe infant reflexes in a way that is meaningful to someone who has never seen one. Film lets the students see it. Through film, my students are able to observe infant care on an Israeli kibbutz or to meet a family that has lost a child to Tay-Sachs disease.

Film can get students emotionally involved with the material, and I take advantage of that, using film as a basis for group discussion. But the lazy habits born of too much entertainment television can cause students to consider the films as breaks in the class, opportunities to "space out." It is necessary to establish a context for their active involvement with the film material. I do this primarily by telling the students that the films are integral to the course and they will be tested on them. I also introduce each film, embedding it thoroughly in the structure of the class — a technique that has been shown to enhance learning from a film. An informal survey in my classroom confirmed an experimental finding mentioned earlier: A film image makes a point from lecture or reading more memorable.

After showing a film, I use lecture to relate the concrete examples presented in film to general facts and theories. For example, following the film of the Tay-Sachs family, I might talk about the frequency and genetic mechanism of Tay-Sachs disease; after a film showing infant care on a kibbutz, I would talk about how infants who have been raised on a kibbutz generally turn out. I also use textbooks, which have strengths similar to those of lectures but can cover a still larger range of fact and theory. Textbooks often provide general background and factual tie-ins for the films as well. Finally, I have the students observe children in order to test some facts and theories for themselves, to experience the methods from which facts are derived in the field and to become personally involved in the material.

Thus, each medium — video or film, face-to-face communication, print, and real-world observation — contributes a unique point of view on a common set of topics. Together they provide memorability, active learning, factual content, and generalizations about the field. While this example is simply based on my personal experience, it agrees with the facts that have been accumulating about each medium and about the value of multimedia learning.

THE SECOND advantage of multimedia education is that it can foster new skills that print alone cannot. As Gavriel Salomon's research shows, television and film viewing, even home viewing, develops visual abilities, such as skill in imagining how a scene would look from another point of view.

It is virtually impossible to describe infant reflexes in a way that is meaningful to someone who has never seen one.

This ability to shift visual points of view is required to interpret different camera angles often used in filming or televising a scene. This visual skill is part of what can be called television or film "literacy." Arcade-style video games add further development to visual-spatial skills like these, as research by Diana Gagnon at Harvard shows.

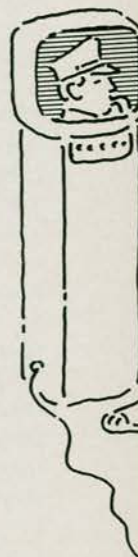
Contrary to what many people might think, the development of visual-spatial skills such as this one has important implications for education. In a 1977 article in *Science*, E. S. Ferguson pointed out that the language of technology is basically a nonverbal one and that people involved in technology need to be able to think in terms of visual images, not just numbers. Ferguson's point is even more important today, when so much engineering and other kinds of design are done on a computer screen. Indeed, research shows that computer skills of all sorts, from word processing to programming, depend on good visual-spatial skills. In education, our standardized tests rarely measure these skills. Yet all indications are that they will be increasingly important in the world of tomorrow.

Our research shows that video games develop still other skills of educational value; for example, the discovery processes that are so important to scientific thinking. This effect stems from the fact that video games are lifelike: No one tells you the rules in advance; you must figure them out for yourself through observation, trial and error, and the process of hypothesis testing — in other words, the essence of the scientific method. Video games are thus an informal learning mechanism that helps to develop the scientific thinker who is able to approach complex systems with unknown rules and figure them out, just as a video player figures out the game. Video games also introduce children to the world of microcomputers at a time when computers are becoming increasingly important both in many jobs and in daily life.

THE THIRD important reason for multimedia education is that it gives us educators the chance to greatly boost each medium's educational value. The growing pervasiveness of television, video games, and other computer technology makes it all the more urgent that we discover how best to use them. We know that the educational impact of a medium is enhanced

(Continued on page 36)

VIDEODISCS: THE THINKING PERSON'S AUDIOVISUAL



BY FRANK B. WITHROW

A MUSIC student takes a deep breath, adjusts the mouthpiece on her saxophone, assumes the proper fingering, and prepares to join the Marine Corps Band. The performance she joins has been recorded with all the instruments minus one, and as she follows the musical score on the screen in front of her, she adds the missing instrument and becomes part of the performance.

A chemistry student mixes two volatile chemical solutions, and they explode. No one is hurt, though, because the experiment is conducted by computer in a lifelike video simulation instead of at a bench in a traditional lab.

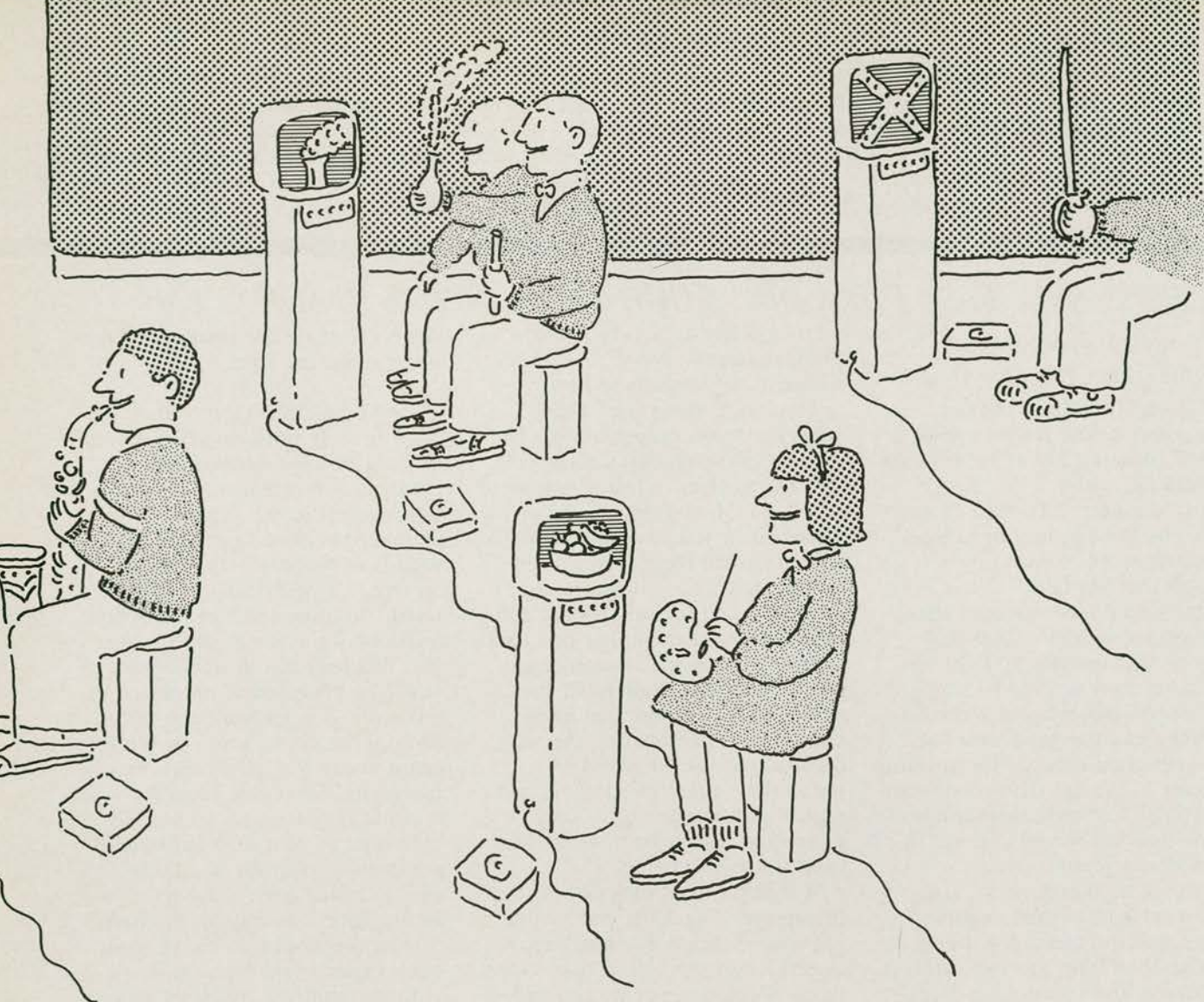
An art teacher, discussing the uses of light and shadow, illustrates her point with three Monet's, which she instantly retrieves from her video storehouse of the National Gallery of Art's complete collection.

These students and teachers are making use of one of technology's newest tools for teaching and learning — the interactive videodisc. This technology blends the

Frank B. Withrow is director of the Division of Technology, Resource Assessment and Development for the Center for Libraries and Education Improvement of the U.S. Department of Education.

best in television and film with the best in computer science.

What is a videodisc? Basically, it is a high-density carrier of both audio and video information, with powerful search and retrieval capacities and with interactive capabilities not possible with other video systems. Several different models have been introduced in the last few years. Some have failed, such as those that used the same process as audio records and were really only useful for continuous-play entertainment movies. The laser videodisc that is the current world standard is the reflective laser disc. That means that the laser light hits the disc and is reflected back. This process reads the tiny data pits in the disc. The Constant Angular Velocity (CAV) format of the disc allows for 54,000 frames to be stored on each side, which — to put that in perspective — is equal to 600 35 mm slide trays! On the new players, any of those 54,000 frames can be accessed and shown within three seconds. The disc can play video motion with stereo sound and has the ability to store digital information for microcomputers. It can replace the sound filmstrip, motion picture, data base, and audio recorder. A videodisc the same size as the common home computer floppy disc can store information that is equal to twelve hundred floppy discs. If the disc is



ILLUSTRATED BY GUY SCHUM

recorded in the Constant Linear Velocity format, it yields one hour of constant play per side.

The indexing and search capability of the CAV disc is one of its most unique features. As mentioned before, any one of the 54,000 frames can be searched and retrieved in a matter of seconds. Motion sequences can be slowed down, stopped, reversed, lingered over. Another feature is called "chapter stops," which means that large segments of the disc can be stored, coded, and preselected like chapters in a book. The combination of chapter and frame search abilities gives the laser videodisc the flexibility of a book. Such speed and ease of use of audiovisual materials is a teacher's dream and is fully deserving of the term "user friendly."

THERE ARE basically two types of videodisc programs. One is known as Level 1 and is limited to the use of the videodisc in its free standing mode (without a computer); the second is Level 3, which is controlled by an external computer and has lesson materials imbedded in the computer program as well as the videodisc. In the most sophisticated of these Level 3 systems, it is difficult for the user to know when the visual is generated from the videodisc or when it is generated from the computer.

The earliest and most successful introduction of the videodisc in the education market will be Level 1 programs, in part because the cost of the classroom unit is substantially lower than that required for Level 3. But more important is the fact that teachers are more comfortable with this level. It is more like the media they currently use. Also, Level 1 materials are more economical at the design, development, production, and distribution stages. From a marketer's viewpoint, the economy of scale provided by the home entertainment market plus the school market makes it feasible to produce high-quality products that are financially successful.

From strictly a pedagogical viewpoint, the Level 3 programs offer a sounder opportunity for really exciting development. However, the current state of the art and the fact that schools will be required to buy a computer plus a videodisc player make extensive use of Level 3 a promise for the future. Level 3 systems should be experimented with, and people designing Level 1 programs should incorporate Level 3 potential in the design format.

One of the most interesting and successful uses of the Level 1 technology is a program called COLLEGE USA. Used in five hundred schools in thirty-four states, this college exploration disc allows the student or counsel-

or to visit up to one hundred college campuses via television. There is a three- to five-minute promotion for the college and then forty still frames that give the exact data required for that institution plus supplemental information on tuition, course requirements, living arrangements, student financial aid, etc. Since

several states have already passed laws that prohibit college recruitment in high schools, this videodisc becomes a cost-effective means for students and counselors to explore alternatives for career and school choices. It also illustrates a general application for the videodisc: to allow individuals to visit sites that normal-

'SEARCH' AND 'FAST FORWARD': HIGH TECH IN THE READING LAB

BY JANNEKE BOGYO AND ANNE LOUISE FERNBACH

"COULD WE see the part about how JFK was shot, please?" shouted Bill as he entered the reading center.

"No," countered Debbie. "I want to see the Hindenburg burn again. Did sixty people REALLY live through that big fire?"

Who would have thought that these remedial junior high students would actually be fighting over what they wanted to learn? It was hard to believe that Debbie and Bill were the same two students who had entered the reading program in the fall. They had been the typical, lethargic slow learners, placed into the reading center in hopes of eking some small achievements out of them. The daily workload in their regular classes was too much for them, and they had long ago lost interest in learning and respect for themselves. They were, after all, fifteen years old and still in the seventh grade. Didn't that prove they were "dumb"?

We had certainly seen our share of students like Bill and Debbie in our eight years of teaching together in our communal reading center at Starpoint Central. We divided our time among approximately one hundred of them per year. We had cajoled, coaxed, and prodded most of them until they graduated. We had tried everything that teachers all over the country try. Some things worked for some students and not for others, so we had become accustomed to changing tactics on a moment's notice. We were constantly discussing and reviewing what we

were doing, what worked, and what didn't. Naturally, we were always willing to try something new.

The "something new" three years ago was computers. We had thrown ourselves wholeheartedly into the project of learning how to use them. Many commercial programs allow teachers to add word lists or create their own lessons with little or no programming skills. We had learned to take full advantage of these utility discs and had become adept at changing programs to suit individual student needs. We now had many computer programs that the students could use to reinforce vocabulary, practice spelling, and review content area concepts. We wondered if high technology had even more to offer us.

We didn't have to wait long for the answer. Jim Mills, our principal, informed us of a workshop dealing with the use of laser videodiscs. We had never even heard of videodiscs, but it sounded like a new challenge to us and one that might benefit our students. Without a second thought, we agreed to go. What we saw at the workshop absolutely amazed us. We returned full of enthusiasm, but with little expectation of actually possessing one of these fabulous new machines.

Before long, however, Jim was able to secure one. So there we were: the laser player and a few discs, and we embarked on a totally new adventure. As usual, we decided that the best way to deal with this new technology was to throw ourselves into it and learn as we went along. After all, NOBODY really knew much about it. The first thing we did was read every article we could find about videodiscs. This was very important in gaining a better understanding of the technology and its varied possibilities. We now felt

ready to tackle the project on a more concrete level.

ONE SATURDAY morning, we bravely positioned ourselves in front of the machine, remote controller in one hand and direction manual in the other. We gradually became comfortable with it as we learned to use the "search," "stop," "still," "fast forward," "multispeed," and "display" features. We were amazed at the two different sound tracks that could be accessed at the touch of a button — even from across the room if we chose to do it. We became inventive, tried different things and soon had a feel for what it could do. Now, we had to decide how to fit it into our overall educational plan for the "Bills" and the "Debbies" we would soon be facing again on Monday morning.

Our philosophy in the reading center has always been to work with the students using their content area materials. All the subjects seem so disconnected to these reluctant learners. In their minds, science is separate from English, which has no connection to social studies and certainly has no relationship to math! We were constantly looking for ways to coordinate the subjects. The more we watched the discs, the more ways we saw to tie subject areas together and still work on the reading and study skills these students so desperately needed.

Our initial choice of discs was one called "History Disquiz," which includes forty-seven film clips of historic events and people. Subjects range from the serious ones, such as the Nuremberg Trials, to the humorous, such as the fads and styles of the 1920s. Each clip includes two sound tracks: one with the correct narration, the other with deliberate factual errors. After each segment,

Janneke Bogyo and Anne Louise Fernbach are reading specialists at Starpoint Central School in Lockport, New York.

ly would be beyond their access.

"Whales," a Level 1 disc produced by the University of Nebraska Videodisc Design/Production Group in partnership with the National Geographic Society, illustrates how a videodisc can combine the flexibility normally associated with a book with the drama and

memorability of visual images. After viewing beautifully filmed footage on the ethology of the whale, students are asked to master a list of vocabulary and concepts covered in the film. Breaching — the leap of a whale from the water — is one such new vocabulary word. To

(Continued on page 40)

there is a multilevel trivia quiz. Best of all, each clip is short so the students' limited attention spans could be considered when planning lessons. As we watched the disc, we noted the continual relationship of language, science, social studies, and math skills within separate segments. Excitedly, we began to write down vocabulary, figurative language, and concepts common to several content areas. It was easy to see how one lesson could include all of these elements along with reading, research, and listening skills.

We decided to try the following lesson plan: Students would first read a selected article, follow a study guide to get the important information, then view the appropriate film clip. On the second viewing, students would be expected to detect the errors on sound track two. The students would then group themselves into competing teams for the trivia quiz, keeping score according to the directions on the screen. In this way, students would use the information in four different ways: reading, writing, listening, and recalling. The plan also provided two elements crucial to a good lesson: reinforcement and motivation.

IT LOOKED great on paper but would it work? Monday morning came and the students were filing in with their usual resistance and typical comments. "Do we gotta do this?" "Why do we gotta read again today?" "Can we see cartoons on the TV?"

As we worked through our plan, the comments changed: "Hey, this ain't so bad." "That's pretty interesting." "Can we see the bridge fall again?" There was real enthusiasm in their voices. Could this be real? They were actually eager to "dig" for information so that their team could win the "History Disquiz" trivia game. Not only that, but when they came in for the

next class, they even asked for more. "Hey, can we see the one about John Dillinger this time? I've gotta do a report on a famous American for social studies and this guy sounds bad!" This sudden zeal was more than we had dared hope for.

Delighted by our initial success, we were eager to tackle the next disc. "The Greatest Adventure" proved to be just as successful. Again we took advantage of the opportunity to relate the space program (the topic of this disc) to social studies and language arts. This time there was no trivia quiz and no second sound track, but the depth of the concepts presented provided ample material for research and discussion. "You mean the Civil Rights movement was at the same time as the space program?" What a revelation! They seemed to be grasping the relationship between disciplines! Now we could even add some idiomatic expressions to show them how language fits into the picture, too. We found it hard to believe that most of the students had never heard expressions such as "on the verge" or "throw down the gauntlet." This was opening up whole new vistas for them.

The students' enthusiasm spurred us on! Before long, we had compiled an entire file of reading materials related to the topics on the two discs. This way, we were ready on a moment's notice to read, view, and discuss something that was pertinent to them. Another important step was coordinating our computer program with the laser disc lessons. Whenever unknown words or concepts appeared during the lessons, we added them to our growing library of computer lessons. We could now divide into individualized groups, some working with the videodiscs and others with the follow-up activities on the computers. The reinforcement

provided by these programs proved invaluable.

UNTIL NOW, our use of the videodiscs had been at the first two levels of their interactive capabilities. We were eager to try to move on to level three. We knew level three would take a lot more time, because, at this "interactive" level, the computer is used to "repurpose" a video disc. This involves designing branches that are executed by input from the computer. Again, we "hit the books" to find out everything the experts know on the subject. We found surprisingly little information. It seemed that the whole topic was so new we had to be pioneers ourselves.

First, we searched the catalogs to find a program that would allow us to repurpose the disc without a great deal of technical or programming skill. Certainly, we knew *some* things about programming, but time was an important consideration, too. Like all teachers, we had precious little planning time. What time we had, we preferred to spend designing lessons that would suit our particular needs. The more the expert programmers could do for us, the better. We found what we needed in "Laser Write." After a few sessions with the tutorial provided in the manual, we were able to combine the capabilities of the computer with the flexibility of the laser. We could hardly believe how easy it was!

Now, after experimenting with high tech and learning what it has to offer, the pieces are beginning to fall in place. With our experience using computers and our new-found ability to manipulate information on the laser, we have everything we need to design unique and dynamic lessons exactly the way we want them. What a world of possibilities has been opened to us! □

'I AM ONE WHO WRITES'

New Approaches to Children's Writing

BY LUCY MCCORMICK CALKINS

AN ADMISSIONS officer at a major university wrote, "It is this tedious mediocrity of student writing that amazes me. There is a dead level, unvaried by a fresh thought or a new turn of phrase." The university was Harvard, the year, 1887. Today's writing crisis has been with us for a long time.

Recently, though, concern for writing has grown. It is fueled by competency tests, now given in thirty-nine states, and by studies on the status of writing in schools that show, for example, that although students have pen in hand for over 40 percent of the school day, most of this time is devoted to mechanical chores, such as copying from the chalkboard. Only 3 percent of the school day is spent on composing. When students *do* write, 88 percent of the time their only audience is the teacher as examiner. Is it any wonder that for many students, "writing is but a line that creeps across the page, exposing as it goes all that the writer does not know?" (Shaughnessy.) Perhaps the most serious statistic of all has emerged from Donald Graves' study of thirty-six teacher-training institutions in which he found 169 courses in the teaching of reading and only two courses in the teaching of writing. Most teachers enter the field with no training at all in teaching writing.

But things are changing. There are now hundreds of workshops each summer on the teaching of writing and more than fifteen journals devoted to composition. The subscription list to *College Composition and Communication* is nine times longer than it was fifteen years

Lucy McCormick Calkins is an associate professor of education at Teachers College, Columbia University, where she directs The Writing Project. Author of Lessons from a Child, her new book, The Art of Teaching Writing, will be published in November 1985 by Heinemann Educational Books. In this book, Calkins draws upon her own experience in public school teaching as well as upon eight years of research into children's writing development.

ago. Many school districts boast newly formed writing committees. In New York City, where the Teachers College Writing Project is providing intensive classroom-based teacher training in nineteen districts, it is not uncommon for five hundred of these teachers to spend a Saturday attending a conference on the teaching of writing.

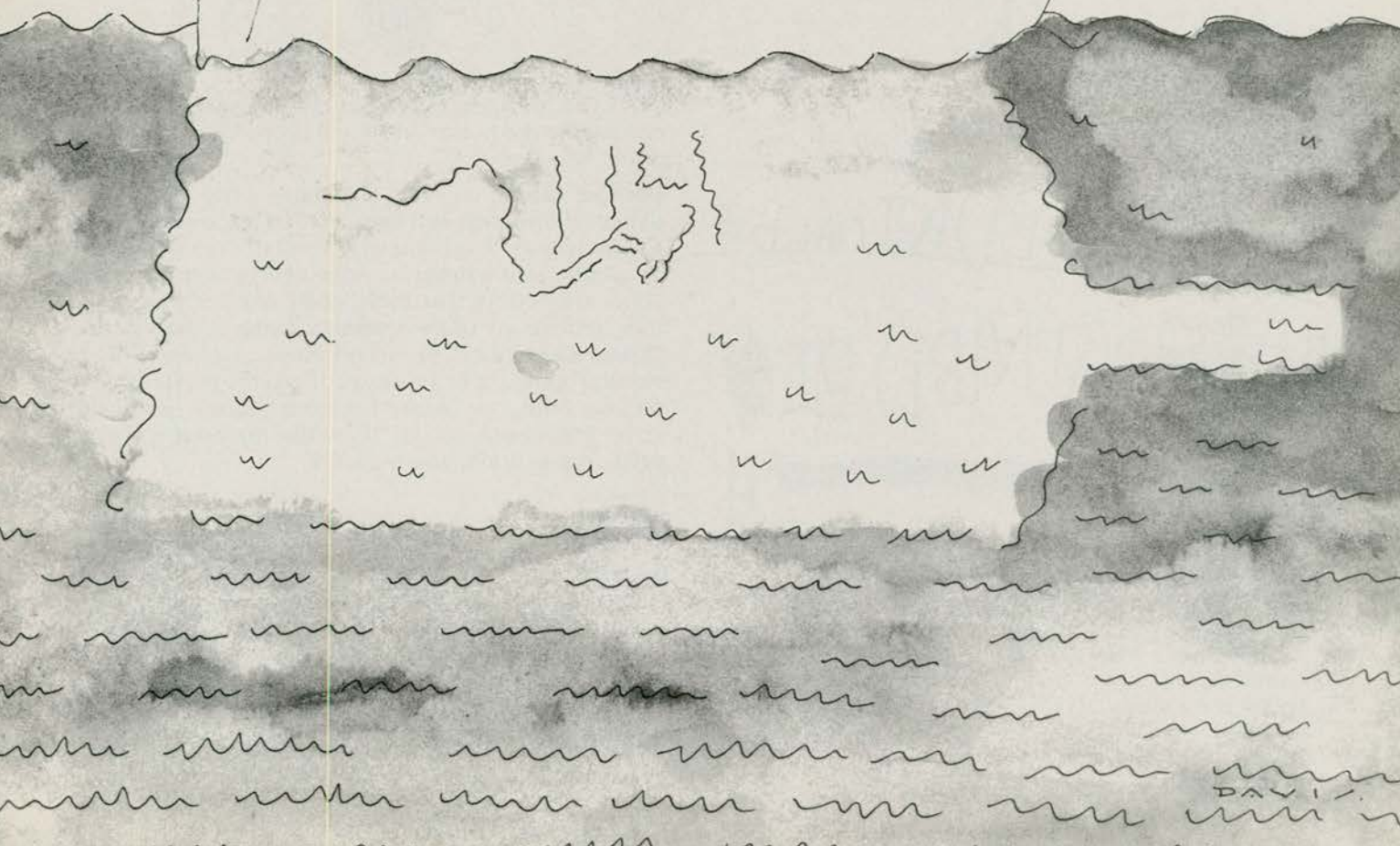
This growing interest in the teaching of writing is accompanied by a growing knowledge base. Over the past fifteen years there have been, for the first time, major studies on how children change as writers (see "Suggested Readings"). The findings from these studies echo each other and they have created dramatic changes in the way writing is taught and learned in our schools.

UNTIL RECENTLY, teachers assumed that children did not begin writing until first or second grade. But current research has shown that youngsters are writing long before they come to school. On bathroom walls, on the backs of old envelopes, on misty mirrors, and wet beaches, children are putting their marks on the world.

"Teaching writing in kindergarten?" a friend of mine recently said, and she shook her head. "I don't believe in it. Children need time to be children, to grow through natural childhood activities of art, song, and play."

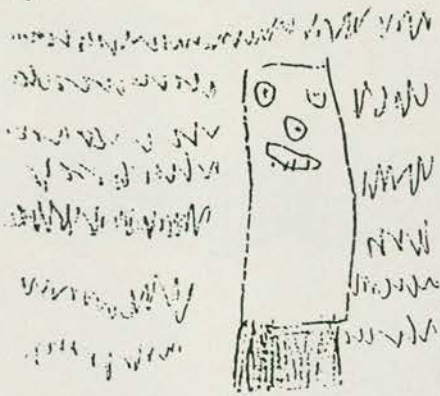
I agree. Children *do* need time to grow through natural childhood activities. But it is not the children but the adults who have separated writing from art, song, and play. Schools have turned writing into exercises on dotted-line paper, into a matter of rules and lessons. Children view writing quite differently. For them, it is exploration with pencil and chalk. Long before they come to school, children are writing—as best they can.

Even when children do not know sound-symbol correspondences, they can role play being writers just as they role play being engineers on make-believe trains. They can use what they know about print to write

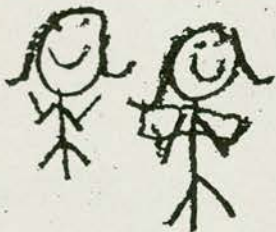
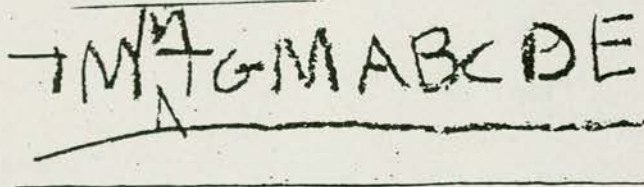


DAVI

shopping lists, signs, phone messages, and stories. This is true even for Estella, whose knowledge of print is rudimentary:

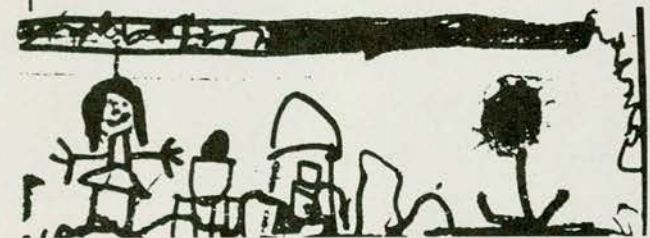
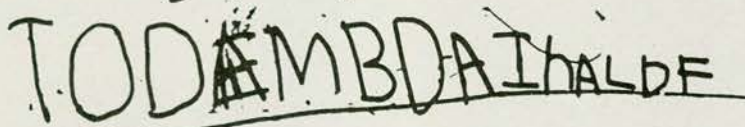


When Estella brings her "story" to us, our job is to pay respectful attention to her approximations of written language. "Would you read it to us?" we ask. Our trust that Estella's story has been embedded in her letters helps her learn the power of print. Most children come to school knowing at least a handful of sounds, and their stories testify to their burgeoning knowledge.



Translation

Once my mother teach me a-b-c-d-e-f-g-h.

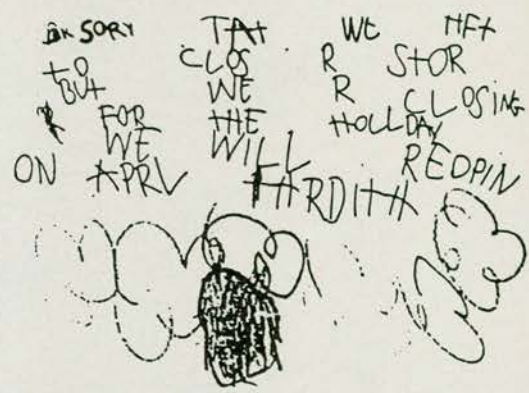


Translation

Today is my birthday. I had lots of fun at my birthday.

It would be easy to look at what these children have done and to think, "They are going to fixate on bad habits. We must teach them the proper spellings." But throughout New York City, teachers have discovered that if, instead, we let young children learn to write like they learn to talk, their growth in written language will be as spectacular as their growth in spoken language. The baby says "ady" and we wouldn't think of responding, "Oh, no! He's saying 'Daddy' wrong. He isn't ready for whole words yet." We wouldn't think of assigning the child drills on the "d" sound. Instead, we call, "Dad, he's calling you." We see through the errors to what the child is trying to say, marveling in the child's successive approximations of adult language. In classrooms throughout New York City, teachers have begun responding to children's early writing just as parents respond to "ady."

Children are invited to use their rudimentary knowledge of print in real, purposeful ways, acting as full participants in the world of written language. In the block area, they make road signs and billboards. In the housekeeping area, they take down messages on the notepad beside the toy telephone. Latrice, a kindergarten child from P.S. 230, recently left this sign on her make-believe store:



Translation

Sorry that we have to close our store but we are closing for the holiday. We will reopen on April 30th.

Because Latrice and her classmates write with confidence and interest and because they each perceive of themselves as "I am one who writes," they notice the conventions of written language everywhere. They ask about the letters that initial their teacher's handbag, they imitate an older student's cursive, they notice "About the Author" blurbs on the back cover of their reading books. After Tashena noticed the preface in her reading book, she wrote her own preface inside the cover of her book. It said, "If you like this book you get a prize, if you don't, you get mud."

WHEN I was in school, writing was assigned and corrected but rarely taught. If it was taught at all, the focus was on characterizing written products. In elementary school, my teachers listed the traits of haiku, science fiction, and tall tales and showed us examples of each. In high school, they did the same for descriptive, narrative, and expository writing. Their focus was on the ideal text, on the final product. I knew what I wanted my writing to be like, but when I put words

on paper, my strained platitudes and clichés never matched the ideal texts I had in mind. I do not think a single teacher ever spoke with me about how I could close the gap between my real and ideal texts. No one talked with me about the processes I could use to write more effectively. In a recent study, James Squire found that this is true for 95 percent of the students graduating from our high schools.

From the late nineteenth century until very recently, the dominant method of composition instruction involved describing the modes of discourse and showing models of each. But recently, the field has undergone a paradigm shift. Researchers have begun to realize that just as there are methods that many scientists use in their research, there are also methods that many writers use in their work. Instead of focusing only on the traits of good writing, researchers are also studying the strategies people use to write well. Some describe the writing process in terms of a sequence of recursive stages: prewriting, writing, and rewriting; or rehearsal, drafting, revision, and editing.

In their eagerness for research-based curricula, some educators have hurried to insert these stages into existing teaching methods so that children now proceed in unison through a prescribed set of prewriting and rewriting activities. To our dismay, the texture of life in these classrooms remains as it always was. But the incredibly exciting thing is that this is not always the case. In districts throughout New York City and, indeed, throughout the country, current ideas on teaching writing are providing new images of what classrooms can look and sound and feel like and new models of what it can mean to teach wisely and well. It is for this reason that the teaching of writing has touched the hearts and minds of American educators and kindled a new kind of professional energy.

FUNDAMENTAL TO the writing process is the belief that human beings have a need to write. Cavemen inscribed stories on stony cave walls. Little children put their marks on every available surface. In slow, wobbly letters, the old and sick in our nursing homes put their lives into print. We write to make our truths beautiful, to frame and hold cherished moments. We write also to learn: to recall, plan, organize, and map, to connect old ideas and to discover new ones. We write to teach ourselves and others what it is that we know.

Archibald MacLeish points out that the "whole situation in a writing course is a reversal of the usual academic pattern. Ordinarily it is the teacher who knows, the student who learns. Here it is the student who knows, or should, and the teacher who learns, or tries to." From her fifth graders, Jenifer Hall has learned what it is like to have an anorexic sister, to attend a Yugoslavian wedding, to see your brother die in a street fight. She has learned about caring for pigeons, about dirt bikes, and Christmas in Italy. Her children want to write because writing allows them to teach others what they know.

Erik Erikson has said, "We are the teaching species. Human beings are constituted so as to need to teach, not only for the sake of the young who need to be taught but because ideas are kept alive by being shared, truths, by being professed." What we sometimes forget is that children are part of the teaching species. They, too,

need the chance to claim, articulate, and share what they know.

When children write, classrooms change. John Goodlad's data on the gap that exists in most classrooms between teachers' agendas and children's interests have led me to believe that one reason the teaching of writing is becoming so popular with teachers and children is that it has rekindled the human connection in our classrooms. The writing workshop has none of the emotional neutrality that characterized most of the classrooms in Goodlad's study. Instead, children write about what is alive and vital to them, and their writing becomes the curriculum. Their teachers listen, extend, and guide; but first they listen.

The teaching of writing begins with listening. On the first day of school this year, I worked with a class full of kindergarten children. One little girl cried throughout the class and said only, "I want my Mommy." The next day she drew a tiny picture and an assortment of letters. I was pleased, and so, at the end of the writing workshop, I asked if she would sit in the place of honor, the author's chair, and share her story. The girl, Maria, held up her picture and told her story:

The girl is sad.
She has no friends.

Several children raised their hands. "I like your picture," one said.

"I like your writing," another said.

Then a tiny boy with big solemn eyes looked up at Maria and said, "I'll be your friend."

That little boy knows something essential about the teaching of writing. We need to write, but we need also to be heard. As Francois Mauriac says, "Each of us is like a desert, and a literary work is like a cry from the desert or like a pigeon let loose with a message in its claws or like a bottle thrown into the sea. The point is: to be heard — even if by one single person."

In traditional classrooms, the curriculum is a kaleidoscope of small activities. Students are hurried from one assignment to another. In his study of American classrooms, Goodlad found more time is spent on transitions in the language arts classroom than in any other subject. But writing requires a different pace. Writers need time to brood, plan, write; to reflect, talk, and write some more. They also need the freedom to shuttle between these activities. In my new book, *The Art of Teaching Writing*, I suggest that writing workshops need the simple, clear predictability of an artist's studio, a researcher's laboratory, or a scholar's library. The structure in each of these settings is deliberately kept simple and predictable because the work at hand and the interactions around that work are so changing and complex. The complexity in a writing workshop needs to come not from the teacher's ever-changing agendas, but from the diversity of what students are doing. One writer may tinker for a long while over each sentence, and others will move quickly down the page, their momentum building, their pencils leading in unexpected directions. While some writers will plan before writing, others will need to put their ideas onto paper before they can think about what they want to say. The workshop is characterized by diversity. While one child

(Continued on page 42)

BUT CAN SHE COOK? OVERCOMING THE BARRIERS TO WOMEN'S EDUCATION

A REVIEW BY JOYCE ANTLER

In the Company of Educated Women by Barbara Miller Solomon (New Haven: Yale University Press, 1985, 298 pp.).

IF THE college woman is a mistake, Nature will eliminate her." So spoke Stanford University president David Starr Jordan in 1906, at a time when over one-third of the nation's college students were female. Although women's access to higher education seemed guaranteed, the education of women in a manner equal to that of men continued to spark passionate controversy. Indeed, in every era, including our own, the higher education of women has induced widespread anxiety about women's identities outside family roles.

Barbara Solomon's great achievement in *In the Company of Educated Women*, the first comprehensive survey of the history of collegiate women, is to reveal the continuing dialectic between the progress made by educated women and the inevitable conflicts that their successes engendered. Educated women appear as the vanguard of social change, yet they are portrayed, too, as victims, or at least subjects, of more conservative cultural messages formed in reaction to their innovations.

Solomon sees the history of women's higher education as continually shaped by the struggle for access to institutions — whether academies, coeducational colleges, or postgraduate and professional programs. Whatever the period and whatever the specific objective, overt or subtle forces of discrimination have ensured that women's entitlement to collegiate education would be won only after a hard-fought battle.

Solomon is also concerned with portraying the multi-

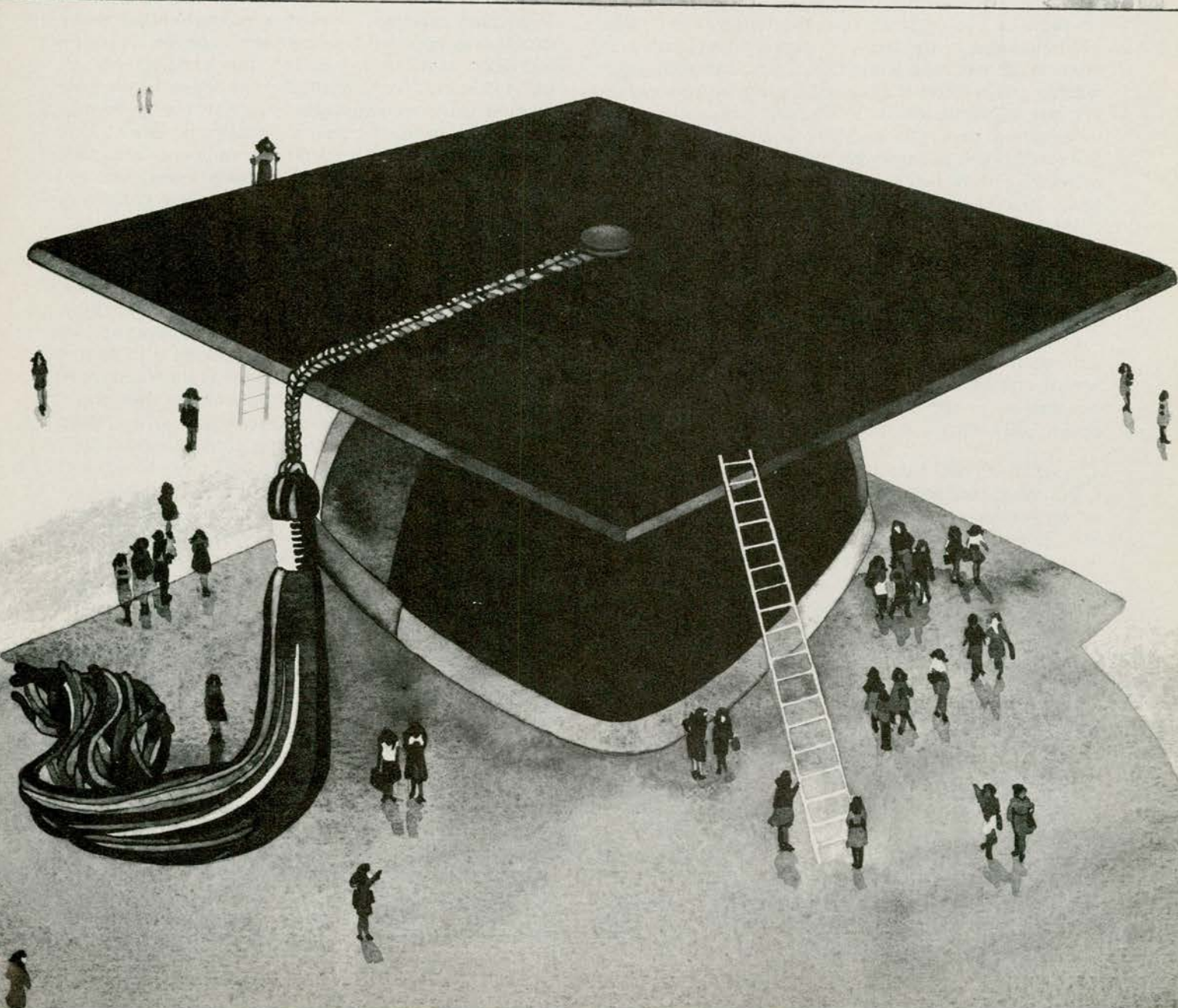
Joyce Antler is assistant professor of American Studies at Brandeis University and director of the Women's Studies Program. Her biography of Lucy Sprague Mitchell, founder of the Bank Street College of Education, will be published by Yale University Press in the fall of 1986.

ple dimensions of the college experience and the diversity of the institutions in which women enrolled. College meant more than formal studies or even contact with teachers, since in every generation, Solomon believes, students were probably most influenced by their relationship with peers. She also recognizes that individual students differed in the way they valued the various elements of their educations: the quest for knowledge, vocation, and identity. Parental influence, class, religion, racial and ethnic background, and personal experience participated in making the college experience an individual one.

The effects of college education on women's life choices, a third theme that Solomon introduces, is carefully delineated for successive generations of educated women. Solomon demonstrates that the efforts of college alumnae to fulfill their own expectations for achievement and yet remain faithful to social definitions of womanhood created tremendous ambivalence and role strain. A substantial minority of educated women never married, and many entered professions appropriate to traditional female ideals, particularly teaching. In every generation, college women who did marry had to confront the dilemma of marriage or career, some of them solving the problem through part-time or staggered careers, some of them relinquishing paid work entirely after their children were born.

Finally, Solomon explores the links between women's higher education and feminism, demonstrating a complex, shifting relationship that is crucial to understanding the ways in which women both adapted to and shaped cultural expectations regarding gender.

SOLOMON'S STORY, written for both the general and academic reader, begins with the antebellum female academies, which she sees as a critical turning point for women's higher education. Unlike many earlier historians who disparaged the curriculum content of late eighteenth- and early nineteenth-century seminaries, academies, and normal schools, Solomon applauds the innovative pedagogies introduced at these



institutions. Although ornamental studies, including dancing, singing, and piano playing, remained commonplace, often female seminaries improved upon the curricula at the best male institutions, particularly in the sciences, by offering excellent courses in chemistry, physics, botany, and geology and adding new subjects like American history and geography. Although rooted in the conventional ideology of true womanhood, seminaries like Troy, established by Emma Willard in 1821, Hartford, founded by Catherine Beecher in 1832, and Mount Holyoke, founded by Mary Lyons in 1836, nonetheless helped to redefine women's roles by positing that women were rational beings who ought to take themselves seriously. The purpose of educating women was not "to prepare to please the other," Emma Willard asserted. "Reason and religion teach that we too are primary existencies." In the ideals of these educators lay the seeds of a new conception of womanhood.

One of the new functions that the female seminaries helped to elaborate on was that of schoolteaching, a masculine-dominated occupation before the 1830s. Academy, seminary, and normal school training, and in later periods, education at colleges and universities, resulted in the creation of a predominantly female teaching force by the late 19th century. Single women often made teaching a lifetime career, although most teachers who married resigned their positions, either because of mandatory school board policies or their own cultural expectations. Many women used teaching as a springboard to employment in other fields, to social activism, and to high achievement generally. Solomon notes that of the women whose biographies are included in the three-volume *Notable American Women*, 46 percent of those born between 1790 and 1830 had taught school for some period of time. Over half the black women born between 1790 and 1870 in *Notable American Women* also taught school at some time in their lives. For many of these women, a commitment to education led eventually to a concern for racial and/or sexual equality. Thus, higher education enlarged the boundaries of the female sphere in the antebellum period, although for a relatively small group of women.

SOLOMON NEXT details women's advance into higher education from the Civil War to World War I, when women's access to colleges progressed steadily. She reviews the founding of four women's colleges — Vassar in 1865, Smith and Wellesley in 1875, and Bryn Mawr in 1885 — which became national institutions with a far-reaching impact on coeducational as well as single-sex colleges throughout the country. In the wake of the establishment of these Ivy League women's colleges, a number of outstanding seminaries in the south (Mary Baldwin in Virginia, Judson in Alabama, and Agnes Scott in Georgia), as well as the north (Mount Holyoke, Mills, and Rockford), were converted to colleges.

Whereas scholars now working on the history of specific women's colleges are beginning to document the differences between them, Solomon notes their similarities, particularly their common ideal of the educated woman. As L. Clark Seelye, the male president of Smith, put it in the 1890s: "The college is not intended to fit woman for any particular sphere or profession but

to develop by the most carefully devised means all her intellectual capacities, so that she may be a more perfect woman in any position." Learning as an attribute of the "perfect woman" did not challenge the prescriptions of true womanhood directly, Solomon notes, yet by its emphasis on intellectual competence extended women's sphere beyond traditional familial roles.

After the 1870s, the majority of women enrolled in coeducational institutions. Yet the movement of women into both public and private coeducational institutions continued to provoke controversy. Most notorious was Dr. Edward Clarke's influential *Sex In Education* (1873), which attacked higher education for women on the ground that if women used up their "limited energy" on studying they would endanger their "female apparatus." In Clarke's view, coeducation was the culprit. If women were provided an identical education as men, the result would be a monstrous, sterile sex, suffering from "uterine disease, hysteria, and other derangements of the nervous system." Despite Clarke's warnings, studies showed that the health of women college students remained perfectly adequate. And women continued to enter coeducational schools. By 1900, more than twice as many women attended coeducational as opposed to single-sex colleges. Yet their increasing participation in institutions of higher learning generated a backlash. In the 1890s and 1900s, after women had proved themselves not only the intellectual equals, but in many cases, the superiors, of male students, winning a disproportionate number of academic honors, several first-rank coeducational universities and colleges cut back the number of places for women or instituted segregated classes.

SOLOMON FINDS that the "divided sentiment" that accompanied the entrance of women into higher education influenced the courses of study to which they were subject. Before 1910, the widespread assumption that women would not work after marriage colored the meaning with which women and men construed their college experience as well as the courses they took. Generally, women's colleges were more cautious than male or coeducational institutions in adopting the elective system. For this reason, they clung more tenaciously to the classical curriculum — Greek, Latin, philosophy, mathematics, science, and English — than other institutions. Despite the strength of women's colleges in various aspects of the sciences — astronomy and physics at Vassar; mathematics and geology at Bryn Mawr; chemistry and zoology at Mount Holyoke; botany and psychology at Wellesley; and anthropology at Barnard — these elite colleges increasingly emphasized cultural studies in the humanistic disciplines. For women, although not men, the provision of liberal culture — learning "for its own sake, detached from professional motives" — became the guiding educational ideal.

Solomon understands, however, that the college experience offered several dimensions other than the curricular. Acutely sensitive to the way in which the individual student's experience of college was influenced by informal associations with faculty, administrators, and peers, she interprets higher education as an interactive environment offering a multiplicity of outcomes. Many women's colleges, for example, offered unusually

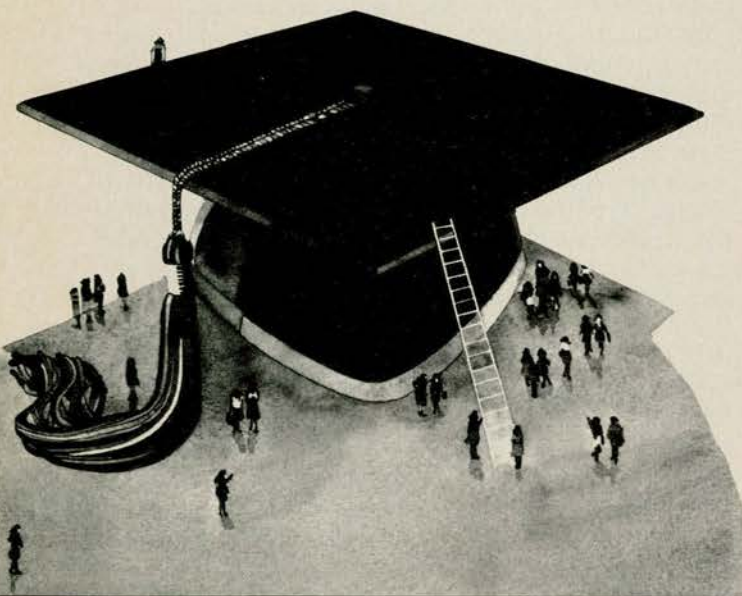
Before 1910, the widespread assumption that women would not work after marriage colored the meaning with which women and men construed their college experience as well as the courses they took.

supportive environments for aspiring women students, providing role models of scholarly, activist faculty and administrators, myriad opportunities for campus leadership and participation in social and political life, and the benefits of female sociability. Even when curricula seemed most traditional and uninspired, students could find opportunities for personal growth and the development of autonomy outside classroom walls. At coeducational schools, on the other hand, "coeds" often remained second-class citizens, objects of scorn and ridicule. Despite the influx of increasing numbers of women at coeducational schools, which by 1890 constituted 43 percent of all institutions of higher learning, men continued to dominate campus social and political life. In such a hostile environment, women usually preferred to carry on extracurricular activities separate from men.

Solomon is particularly concerned to illuminate the class background of early women college students. She shows that, by and large, these women came from a wide range of middle-class families with backgrounds in the professions, business, and agriculture. For farm daughters and daughters of immigrants, particularly, education was a way out of poverty and isolation. Whether they funded their own education or received parental support, they became role models for other college aspirants. Yet, while the proportion of white farm girls and immigrant daughters who attended institutions of higher learning grew steadily, the number of black college women remained miniscule. In a 1911 study of sixty-three colleges, for example, 23.8 percent of women were daughters of immigrant parents, while only 0.3 percent were black women. Even more than class, race proved a barrier to the promise of equality and opportunity that higher education proffered.

SOLOMON OFFERS an innovative generational framework with which to interpret the multi-dimensional aspects of college life as they changed over time. While previous historians have either aggregated early college women into one pre-1920 "pioneer" group, or located two cohorts, 1865-1890 and 1890-1920, Solomon uncovers three generations of educated women. The first, the 1860s to 1890s, was composed of serious-minded pioneers, who, although they enlarged the female sphere, still defined themselves as true women. The more expansive, still-pioneering college women of the second generation, 1890s to 1900s, called themselves "new women." With their robust physicality and confident intellectual powers, they became associated in the popular mind with the immensely colorful, feminine, and nonthreatening Gibson girl. The third generation, 1910 to 1920s, shared with the second a focus on happiness as well as studiousness as a collegiate ideal. In many respects, these modern women, although committed to the Progressive pantheon of reform causes, were attracted to the world of men rather than women. Solomon sees them as harbingers of the flappers who followed them in the 1920s.

Solomon's generational scheme is meant to be suggestive rather than definitive, and she is careful to assert that shared undergraduate ideals rather than demography bound cohorts together. While social factors of race, class, religion, and region, as well as individual





Susan Howe's class just taught her a lesson about insurance.

She thought teaching her high school students to be smart insurance consumers would be like pulling teeth.

Turns out she had a lot to learn.

With the Allstate "Consumer's Guide to Insurance for High School Students," Susan gained a valuable overview of the insurance business in general. So she could plan 10 dynamic lessons on everything from insurance history to buying tips to career opportunities. Lessons that hit home with today's aware, consumer-oriented teens.

You can do the same with your class. The 56-page guidebook includes prepared quizzes, suggested homework assignments, even eight overhead transparencies. To get yours, simply clip and return the coupon.

Consumer Affairs, Allstate Insurance Company
Allstate Plaza, F-3, Northbrook, Illinois 60062

Please send me _____ copies of the Allstate
"Consumer's Guide to Insurance for High School
Students." I've enclosed \$3.00 for each copy, by
check payable to Allstate Insurance Company



Name _____

School or Organization _____

Address _____

City _____ State _____ Zip _____

(Please allow six weeks for delivery.)

Together, we can make a difference.

Allstate®

Allstate Insurance Company, Northbrook, Illinois

factors of experience and personality, could in fact separate women within these cohorts from one another, Solomon's model usefully identifies major shifts in attitude and behavior that occurred across institutional and personal barriers. What all three generations shared with each other, she points out, was their respect for intellectual quality and their belief in the worth of women. Together they reflected the transition from Victorian concepts of womanhood to more modern ideals.

SOLOMON PRESENTS a revisionist view of the next half-century of women's education. Whereas many earlier historians have portrayed the era from 1920 to 1970 as a regression both for women's education and for women's rights generally, Solomon argues that in several respects, the period continued to reflect women's continuing progress within higher education. As access to institutions widened after 1920, more Catholic, Jewish and black women began to attend colleges and universities. Secondly, while the nineteenth-century feminine ideal of cultured ladyhood retained its hold, for the first time the possibility of combining career with marriage and family life became the subject of public debate. Increasing numbers of educated women married, and did so at earlier ages, while the proportion of married women who worked grew steadily. Marriage no longer automatically signified the termination of vocational ambition. Even after World War II, when the majority of the nation's educators and psychologists reiterated the primacy of women's domestic roles, educated women continued to work, although usually in traditional "women's" fields.

Solomon acknowledges the Freudian-dominated backlash against women's rights that emerged during this period but suggests that the relative dearth in women's professional training lasted only about a decade. After 1956, influenced both by the departure of veterans from educational institutions and the competitive Cold War race to train educated leaders and scientists, women's strivings were renewed. The emergence of a powerful women's movement in the late sixties transformed social and personal expectations and the context of collegiate education in myriad ways. Most important to Solomon, however, is that, whereas in earlier periods, women's advancement was founded on the achievement of individual women, now, for the first time, women received support from the culture for their aspirations.

Yet her view of this last half-century of educational change, as of the earlier period, is not entirely optimistic. Women's advance along the corridors of academe has always been perilous. At every stage of their progress, they have had to overcome conservative views about women's "place," views that have restricted the uses to which they have been able to put their educations. Often women have internalized these views, making the choice between competing claims of service to society, family, and self exceedingly difficult. And almost always women have had to operate at a comparative disadvantage to men within their fields.

Solomon also worries about the treatment of women at coeducational schools, which in 1981 accounted for 92 percent of all institutions of higher learning. In the

past, coeducational colleges have largely existed as "men's worlds" where women were far from equal. If women are ever to become full participants in higher education and professional life, Solomon argues, new ways to create "an internal acceptance" of women must be found.

Yet, however complex the choices or skewed the opportunities and rewards, college education has always served to guide and shape women's consciousness and aspirations. Although Solomon stresses the fact that the meaning and uses of higher education have varied according to the individual, she believes that generally college helped women to see themselves in new ways and thus to value their own thinking. Though not every college graduate became a feminist, the college experience helped redefine the possibilities of womanhood. And every collegiate woman, Solomon observes, benefited from the legacy of feminism.

THIS, THEN, is a perfectly balanced account of the often contradictory impulses and outcomes of nearly two centuries' experience of women's higher education. Obviously much more work must be done within the field before we can have a complete picture of the history of collegiate women. Studies of women deans, other administrators, and trustees; of black colleges, Southern colleges, Catholic women's schools, and both large and small land-grant institutions of the West; as well as hard data concerning the ways in which colleges have served as routes to upward — or downward — mobility, as the case may be, are a few of the most pressing research needs. But Solomon has taken the enormous wealth of disparate material currently available and has woven it into a seamless, graceful narrative. She has delved heavily into the sources herself, enlightening readers with her succinct and always pertinent accounts of student letters and diaries, alumnae surveys, and administrative records. Teachers especially will find much to savor in this cogent account of educated women. Until the recent period, the connection between college education and service as a classroom teacher, either temporarily or on a lifelong basis, was almost axiomatic. Yet, while early twentieth-century alumnae associations complained of the dearth of vocational opportunities for women other than teaching and clamored for the development of alternative female careers, women have, in fact, found much less autonomy and community in the masculinized professions than in female ones, especially teaching. As Solomon notes, in all eras a significant proportion of achieving and activist women began their careers as teachers.

In writing the history of women's education, Solomon is always aware of the delicate balance that must be obtained between chronicling the patterns of individuals and of institutions. And every passage of this lucidly written book is infused with the recognition that education does not exist as a compartment of experience apart from other social, economic, and cultural arenas. The subtle interplay between women's possibilities within higher education and their shifting roles in the larger society lies at the core of this engaging narrative. It stands as a major contribution to the exploration of women's past. □

Cut Your Grading Time From Hours To Minutes!

Finally, you can put an end to tedious and time-consuming grading computations. Because now you can grade your students quickly, easily and accurately with the new GradeMatic 100 grading calculator.

- Enter and average strings of letter grades in seconds - even "weighting" grades for major projects or tests - using the GradeMatic's patented letter-grade keyboard. Then just press the "Student Average" key and instantly the correct final grade is displayed.

- Average numerical scores - for a single test or assignment or for a semester's worth of tests and assignments - just as easily. You set the high and low passing point totals and the GradeMatic assigns the proper grade.

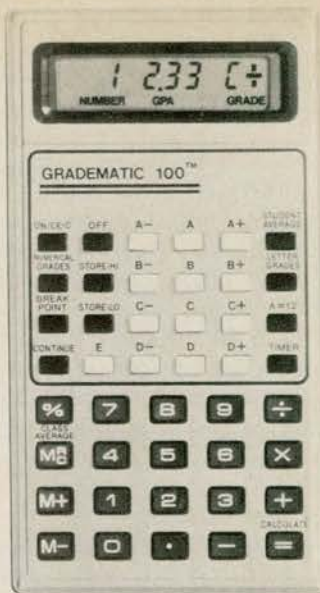
- Automatically keeps class average for up to 99 students, includes a Stop Watch/Timer Alarm, and works as a standard math calculator with percent, memory and battery-saving auto shut-off.

Comes complete with replaceable batteries (avg. life 1,000 hrs.), easy-to-follow instructions, 1-Year Warranty and sturdy vinyl carrying case. And you may add an optional fine-grain leather case or have your initials hot-stamped in rich gold on either kind of case.

With the time you save on your first marking period alone, the \$39.95 GradeMatic 100 will pay for itself. And you'll enjoy years of care-free grading. Plus, it's tax deductible for teachers.

So cut your grading time from hours to minutes this school year. Order your GradeMatic 100 grading calculator today. Mail coupon or call toll free 24 hours, 7 days a week - 1-800-854-8075 (in Calif., 1-800-231-0546).

***14-Day Money-Back Guarantee**
If for any reason you're not delighted with your GradeMatic 100, simply return it within two weeks for a prompt refund in full. No questions asked.



**GradeMatic 100™
Grading Calculator**

Ent Gr

"Enter Grade" - So simple to use, the GradeMatic 100 leads you through grading by asking questions on the large LCD read-out.

4 NUMBER	3.66 G.P.A.	A- GRADE
--------------------	-----------------------	--------------------

The GradeMatic 100 lets you enter and average letter grades directly or convert numerical scores to letter grades.

43 MINUTES	55 SECONDS
----------------------	----------------------

Even has a Stop-Watch/Timer Alarm feature so you can time tests or other activities



Compact (2 3/4 x 5 1/4 x 1/4") and lightweight (5 oz.), the GradeMatic fits easily in pocket or purse.

Educators Agree:

"I can't believe the time I save with this wonderful invention! It's so easy even my students can use it to average their grades." **Gary Geivet, Santiago Elementary, Santa Ana, Calif.**

"I moved from 30 hours per grading period (to average grades) to less than 10 using the GradeMatic 100." **Sherrie D. Morritz, Grandview Jr. High School, Phoenix, Ariz.**

"Best teachers aid yet! Makes grade averaging fun!" **Virginia Mattingly, South Spencer High School, Rockport, Ind.**

GradeMatic 100 is trademarked by Calculated Industries and carries U.S. Patent Nos. 3470368 and 4048484. Please note: Imprinted leather cases are not refundable.

Calculated Industries, Inc.
2010 N. Tustin Ave., Suite B
Orange, CA 92665

Call TOLL FREE 24 Hrs. Everyday
1-800-854-8075
(In Calif., 1-800-231-0546)
or (714) 921-1800

- Please rush me _____ GradeMatic 100 grading calculator(s) for only \$39.95 [plus \$3.50 shipping and handling each].
SAVE! 5 or more \$37 ea. with free shipping to one location with one check or charge. (Calif. res. add 6% tax.)
□ Please include _____ optional leather case(s) at \$10 ea. (regularly \$12.95).
Color: □ Burgundy □ Brown
□ Optional gold initials hot-stamped on either kind of case include \$1.00 per initial.

Print here: [] [] [] []

Name _____

Address _____

City/State/Zip _____

□ Check enclosed for entire amount of order including 6% sales tax if delivered in Calif.

Charge to: □ VISA □ MasterCard □ Am Exp

Card # _____ Exp. Date _____

Sign Here _____ AE-1

(Continued from page 21)

when it becomes the subject of dialogue and discussion, and school is the setting where such discussion can most easily take place. It is important to point out that print literacy (reading and writing) has become "educational" not because of the intrinsic qualities of the medium but because print is used in formal education. That is, in the schooling process, what children read is made the subject of discussion and analysis, and students are made responsible for mastering its content. These same educational processes of discussion, analysis, and mastery can and should be applied to any and all media, not just the printed word and the word spoken by the teacher.

The importance of subjecting all media to analysis and critical discussion attests to the key role of the teacher. No medium can replace the teacher; each medium simply adds to his or her store of professional tools. The active, guiding role of the teacher is essential in countering the passivity and other negatives typically associated with some forms of electronic media.

Video recorders and videodiscs are an important development in making it possible for the visual media to be the object of critical reflection. Not only do they allow broadcast television to be fit into classroom time slots, but a bit of tape can be viewed again or slowed down for the sort of active analysis that a few lines of poetry or other literature can be subjected to.

Video recorders make it possible to use television in many ways that books are now used. Parents can assemble selective videotape libraries for children's use at home. School libraries need to have video players and collections of videocassettes so that teachers will be able to assign viewing as they now assign reading for later discussion in class. This is particularly important for film as literature, because feature films are often too long to be shown in class.

TEACHERS MUST not only use the media to teach, they must also teach about the media. Teachers have great potential for influencing the child's perception of and response to different media. For example, curricula organized around television can give children a more sophisticated and critical approach to viewing at home. Because children watch so much television out of school, the school needs to exert an influence to maximize the benefit and minimize the harm that results from socialization by the "tube."

Indeed, teachers can have a strong influence on what children watch in their homes. In the research on "Free-style," a PBS program designed to counter sex and ethnic stereotypes about careers, teachers in a number of different cities reminded one group of students to watch the show at home. This teacher guidance produced a rate of home viewing almost seven times higher than the national norm for the program.

Indeed, the school may be the most practical way to influence the way children watch TV and what they watch. Comparing school and home as sources of guidance for children's television viewing, Dorothy and Jerome Singer found that it was easier to influence what children watch on TV and how they watch it by working

through the schools than by working through parents. I can think of a number of reasons why it would be difficult to work through parents. Most parents work, and this is probably all the more true for the parents of children who watch large quantities of television. Parents who work and tend to need television as an electronic babysitter are just the ones who probably lack the time and energy to educate their children about television. In general, parents are often at a disadvantage relative to teachers in the time, energy, and knowledge necessary to guide their children's TV watching.

This is certainly not to discourage parents from guiding their children's television viewing. They should do all they possibly can. It is to say that their task can be helped by teachers. Parents are generally in a better position to know what they do *not* want their children to watch than what they do. It is in making positive suggestions that teachers can be most important.

The importance of subjecting all media to analysis and critical discussion attests to the key role of the teacher.

Making a television show the focus of interaction with an adult enhances children's learning from that show. One important reason for this is that such interaction makes children realize that mental effort is expected of them. Israeli researcher Gavriel Salomon finds that children tend to approach television as an "easy" medium, spend little mental energy on watching it, and, therefore, learn rather superficially from it. In contrast, they view reading as more difficult, invest more mental effort, and learn more deeply from it. However, if children are told to look carefully and try to learn from television, the depth of learning becomes greater. Television viewing comes to resemble reading in this respect. If television were part of school assignments, teachers would very naturally give just this type of instructional message. Why not, for example, assign TV reports to get children to watch and analyze more challenging programs, just as teachers now assign book reports to get children to read and think about books that they might not otherwise know?

A further step in this direction is to treat television as a serious object of study. Rosemary Lehman does this in the elementary school curriculum she designed around the formal features of television, the medium's code and aesthetics. As a class in English literature might talk about the techniques and style of Shakespeare and Dickens, children in Lehman's program talk about the tech-

m&m's® What a Money-Maker!

Now you can easily earn \$264 to \$3575 or more selling m&m's

America's Favorite Candy

Everybody loves good candy and nothing beats selling nationally advertised M&M's, they're the best! M&M's, the candy-coated plain and peanut chocolate candies are the favorite of millions and sell at a price everyone can afford.

M&M's Mean Big Profits For You

When you order M&M's, you receive a convenient carrying case of 60 boxes of candy. Each box sells for 50¢ or \$30.00 a case. You keep a profit of \$11.00 on the sale of each case. Each member can easily sell two or more cases of these proven money-makers! Here's how fast your profits add up:

YOU ORDER	YOU MAKE
24 cases	\$ 264.00
50 cases	\$ 550.00
75 cases	\$ 825.00
100 cases	\$1,100.00
325 cases	\$3,575.00
375 cases	\$4,125.00

DOUBLE YOUR M&M's PROFITS!
 Sell the Large \$1 Boxes of Plain & Peanut...
 Make \$22.00 Case Profit.
 packed 60 boxes to a case

Over 300,000 satisfied customers have experienced 25 years of success with Fuller Fund Raising Products!

Start Your Sale Now!

Call TOLL FREE 1-800-633-5732

to place your order.

(In Alabama, call 1-800-223-1739)



Fuller Fund Raising Company

P.O. Box 4957 • Montgomery, AL 36192

FULLER FUND RAISING COMPANY / P.O. Box 4957 / Montgomery, AL 36192

Please send the following:

50¢ Money-Makers

- _____ cases M&M's Plain
 _____ cases M&M's Peanut

\$1.00 Money-Makers

- _____ cases M&M's Plain
 _____ cases M&M's Peanut

(Minimum order is 24 cases)

Please Print:

ORGANIZATIONAL INFORMATION

Your Name _____ Title _____
 Name of Group _____ No. Members _____ No. Selling _____
 Name of School, Church, Sponsoring Organization _____ Phone (____) _____
 Organizational Address _____
 City _____ State _____ Zip _____

SHIP TO

Name of Person and/or Company _____ Phone (____) _____
 Address _____
 City _____ State _____ Zip _____

ADULT RESPONSIBLE FOR ORDER/PAYMENT

Name _____ Home Phone (____) _____
 Home Address _____ Work Phone (____) _____
 City _____ State _____ Zip _____
 Authorized Signature _____ Scheduled Sale Date _____

TERMS: Net 30 days after you receive your shipment or from your scheduled sale date, whichever is later. All orders subject to approval. Price subject to change. We prepay all freight/handling charges for you and add the charges to your invoice. You are given **FREE MERCHANDISE**, and the retail value of this **FREE MERCHANDISE** covers your freight/handling charges.

296M65

niques and style of television programs.

Lehman's curriculum was tested for a school year with eight-and nine-year-old children. These children were compared at the end of the year with another class taught by the same teacher without the television curriculum. At the end of the year, the children who had studied the forms and aesthetics of television were conscious of stylistic features such as color and composition; children in the other group were limited to conscious awareness of story line.

In addition to increased awareness of the forms of television, the year of studying television also caused a shift in the children's television-viewing tastes; action-adventure and formula programs dropped from their lists of favorite shows and were replaced by more challenging programs. No such change took place in the other class. For example, among the children who had studied television, "Charlie's Angels" dropped from first to tenth place; it was replaced by the evening movies. Whereas no documentaries or docudramas were on the list of favorites before the course, "Holocaust" appeared in the top ten afterwards.

ANOTHER APPROACH to teaching about television focuses on turning children into critical viewers. These curricula aim to counteract the bad effect of U.S. commercial television rather than to use television in a positive way. Camera techniques tend to be treated as devices for deception rather than for art. In fact, the techniques have both sides to them. The critical skills type of curriculum does, however, contribute to children's awareness of the medium. Both approaches to the study of television have distinctive contributions to make, and children would benefit from being exposed to both approaches in elementary school.

Another way of using television in the schools, one that has become increasingly common in the United States in recent years, is to read television scripts in the classroom. The television networks now release their scripts in advance; CBS distributes millions of scripts and coordinated teacher's guides and student workbooks. Teachers in Philadelphia who used scripts from television programs reported improved reading scores and much more interest in reading. Scripts were even stolen from the classroom, the first known theft of reading material in that school.

THE FOURTH argument for multimedia education is that it allows children with different learning styles and backgrounds to be accommodated. A child who lacks a high level of print literacy, for example, may have good facility with computers. Research by Dina Feitelson indicates that children who have not been read to at home before they come to school are at a disadvantage in developing reading comprehension skills. Yet in the United States, such children have become familiar with the television medium at home and are not at a disadvantage in learning from video. Bringing the electronic media into the schools could take advantage of the strong attraction that these media hold for children. I think that it would also make education seem more tied to the "real world," where the importance of the electronic media relative to print is probably the reverse of their relative importance in the world of the school.

The films stimulated not only comprehension and memory of the story but also a desire to read more, similar stories.

Many parents and teachers might worry that spending time with video media in the classroom could further erode reading and writing skills. However, they can also help build print literacy skills. For example, they can be used to enhance the comprehension and enjoyment of literature, especially on the part of less-able students. Working with junior high school students, Elias Levinson looked at how their response to short stories (by authors such as O. Henry) differed depending on the medium of presentation. One group of students read the original story, another group both read the story and saw it on film. The results showed that the addition of the film very much increased comprehension and enjoyment of the stories, especially for students with lower I.Q.s. The advantage added by the film was also greater for the more unfamiliar stories, indicating that film or television could be particularly valuable for unfamiliar subjects or genres.

It is interesting that the films stimulated not only comprehension and memory of the story but also a desire to read more, similar stories. In recognition of this, the Library of Congress has recently announced a new program to "emphasize the importance of linking the pleasure, power, and excitement of books and television." Beginning in September, with the screening of a new series of "Shelley Duvall's Tall Tales" on the Showtime cable network, the actress-producer will appear on the screen at the end of each production and suggest that viewers who have *watched* a good book may also enjoy *reading* a similar one, naming several books recommended from lists supplied by the Children's Literature Center of the Library of Congress. It is also important to note that the effect of film on reading is greatest for the children who tend to have more problems in school, that is, the low I.Q. group.

For all these reasons, teachers need to move toward a system of multimedia education in which the electronic technologies of audio, video, and computers will surely play a key role. Properly used, every medium, without exception, can provide opportunities for human learning and development. Our challenge now is to discover how to make the best use of all media, so that every form of communication and learning can be employed to create the most effective education system possible. □

WHEN THEY SAY "BACK TO BASICS," THEY'RE TALKING ABOUT YOUR RETIREMENT.



If current tax reform measures change section 403(b) of the tax code, most teachers will be guaranteed only the basics at retirement. One tax reform measure now under discussion in Congress would restrict the benefits and flexibility of teachers' voluntary retirement annuity programs.

Those of you who've been setting money aside in tax-deferred annuities will discover that, if 403(b) suffers the changes Congress is considering, the amount you can set aside will be reduced and your current flexibility will be eliminated. The result—your current Federal income taxes will take a big bite out of your future retirement income. That nest egg you've been building through your tax-deferred annuity won't be nearly as large as you've planned.

You can preserve your opportunity to be self-sufficient at retirement by saying, "PROTECT 403B!"

Just clip the letter printed below and send it to your Senators and Congressman. If you really want to get results, make additional handwritten comments or, better yet, write a letter of your own.

Don't let the government cut the heart out of your retirement plans. You've worked for more than just "the basics".

The Variable Annuity Life Insurance Company, Houston, Texas.

**PROTECT
403B!**

Please do not support the restrictions on contributions and access to benefits under 403(b) tax-sheltered annuity plans which are contained in the President's Tax Reform Proposal. The current law encourages me to save for my own retirement. The proposed changes would not!

SIGNATURE

CITY, STATE,

ZIP

VIDEODISCS

(Continued from page 25)

assist them, students are given not only a text description and still picture, but also — since nothing quite competes with actually seeing it happen — another look at the motion/sound sequence is built into the vocabulary review program. That is, the student watches again as the whale breaches from the water.

THERE ARE a number of Level 3 experimental discs suitable for junior high and high school students. One of them aims at improving children's abilities to apply mathematical principles to actual problems. The Digital Equipment Corporation, the Lexington and Lynfield, Massachusetts, public schools, and the Center for Libraries and Education Improvement, with funding from the Secretary of Education's Technology Demonstration grants, are cooperating in the development of a junior high school mathematics disc called "The Word Problem Zone." Short video scenes that create a crisis lead the student into a word problem. One short drama features an alien who visits earth in a flying saucer and travels around earth on a machine resembling a motor scooter. Chased by unfriendly people, the alien comes to the edge of a canyon. On the other side of the canyon is the flying saucer and safety. Your job is to determine the speed needed to jump the canyon on the motor scooter. If you don't help the poor alien, he, she, or it will be doomed for all eternity. Once you master this acceleration problem, a number of comparable computer problems are generated. With this disc, the student can go back and review actual scenes in the drama in order to clearly establish the factual information. Also, a calculator is available on the touch screen to assist in the calculation of formulae. Our experience so far indicates high motivation and interest on the part of both teachers and students participating in this project.

The SPACE discs from Video Vision have recorded much of NASA's efforts to explore space. By combining that dramatic footage with computer capabilities, these discs are able to capitalize on students' inherent interest in outer space travel to involve them in various math and science problems. In one demonstration, students are able to compare the gravity on the moon with the gravity in the classroom. First, the students watch as some of the astronauts conduct gravity experiments by dropping items on the moon. The computer overlay

First, the students watch as some of the astronauts conduct gravity experiments by dropping items on the moon.

program measures the time and distance of the drop to calculate the gravity. The same computer program is then used in a classroom experiment. A student who is about the same height as the astronaut drops an object. Another student records the time from the release of the object until it hits the floor simply by pressing the space bar on the computer. The class then uses that information to calculate the gravity. This combination of watching the actual moon experiment and then using the same methods in a classroom experiment is likely to lead to greater comprehension and retention.

While some history discs have been developed, their full potential has not been realized. The following design for a history videodisc is possible. Let us take our own Civil War as the base for this program. The program could start with maps of the Civil War. By touching the screen at critical points on the maps, I could (1) visit that site today as it is preserved in a memorial park; (2) see a re-creation of the battle; (3) stop and study participants in the battle and, on certain freeze frames; (4) touch soldiers and go back, for example, into a still sequence of the re-created life of the fifteen-year-old soldier, where he came from, what his feelings were, what his chances of living were if wounded. On certain freeze-frame scenes, a wide range of information could be at the student's fingertips. The videodisc allows for multilayered explorations of the living space of history. For example, Robert E. Lee's picture when touched could cause the program to go back into (1) his military training; (2) military record; (3) break with the Union; (4) family life; (5) command activities during the war; (6) surrender agreement; (7) life after the Civil War. These materials could be generated in re-created video formats, still pictures with sound over, pictures and text, text frames, or full dramatic video presentations. This disc would also contain a wide range of data references including bibliographic items that support the various activities on the disc. Additional materials could include discussion by contemporary scholars about the history of the Civil War and its impact on current events. While this type of history program has not yet been developed, the Department of Defense has used such techniques and lessons for people studying contemporary Eastern Europe. By moving over a map of Eastern Europe, a student can isolate a country, city, and neighborhood and recall pictures of streets, buildings, parks, and people, including speeches of local politicians and other officials. In fact, one can ask for an English translation of some speeches and have them appear as text on the screen. Such technology offers very powerful learning tools.

THE BOTTOM line, of course, is: Do videodiscs work? Are they effective learning tools? One of the first studies that attempted to answer this question was conducted by WICAT Education Institute of Orem, Utah, for the National Science Foundation on a very sophisticated college freshman biology course. The results indicated that the students using videodiscs learned faster and had a higher retention rate than their control group peers who had the traditional science course. But more importantly, the materials made the subject come alive for them. The students who used the videodisc as part of their course not only had better

this fall your group can easily
EARN \$14000 to \$2,60400
 or more selling Fuller's
CHRISTMAS GIFT WRAP



300,000 SATISFIED CUSTOMERS.

25 YEARS OF SUCCESS WITH FULLER FUND RAISING—HERE'S WHAT THEY SAY:

"This project has proven to be our best fund raiser — why our order of **56** cases was gone in no time," wrote Lois Jane Curtis, Joaquin Miller Junior High Parents Group, Sacramento, California.


"Great fund raising project!" wrote Anita Kilpatrick, Future Nurses Club, Le Mars, Iowa Community High School. "**Such an easy sale.** Once people saw the lovely paper they bought several packages."

"Each member sold his assigned number of packs, and returned for more. Such attractive, colorful paper **at this low price** makes customers eager to buy," says Mrs. Betty Bramlet, Sponsor, El Dorado, Illinois, High School Thespians.

FULLER'S FAST PROFIT CHART
 Order To Meet Your Profit Goal

Order	You Make	Order	You Make
5 cases	\$ 140.00	30 cases	\$1,056.00
10 cases	\$ 352.00	50 cases	\$1,760.00
15 cases	\$ 492.00	75 cases	\$2,604.00
20 cases	\$ 704.00	100 cases	\$3,520.00

Start Your Sale Now
Call TOLL FREE 1-800-633-5732
 to place your order.
 (In Alabama, call 1-800-223-1739)

 **Fuller Fund Raising Company**
 P.O. Box 4957
 Montgomery, AL 36192

Every Christmas, everyone needs gift wrap. That's for sure. So what better Fall fund raising product than Fuller's CHRISTMAS GIFT WRAP. Prepared especially for groups like yours, each GIFT WRAP package contains 10 big 20"x 26" sheets featuring 6 sparkling, colorful contemporary designs — truly the most beautiful wrapping paper ever offered for fund raising!

BIG PROFITS — INSTANT SELLER

Since your prospects already need GIFT WRAP, your profit potential is greater with Fuller's CHRISTMAS WRAP. You sell each package for \$2.00. You earn a big \$28.00 on each case you sell (36 packages per case). What an easy way to add to your group's treasury!

CASH IN ON BONUS PROFITS!

Bonus profits with Fuller's CHRISTMAS GIFT WRAP are yours. For every 10 cases you order and sell, you'll receive one FREE case worth \$72.00 for your group. Sell 20 cases — get two FREE cases, \$144.00 value! Start selling and watch your bonus profits grow! To qualify for Fuller's bonus profit cases, simply make FULL payment of your order within 30 days after you receive it.

NO RISK — NO INVESTMENT

Fuller Fund Raising Company ships your CHRISTMAS WRAP on credit. You may return any unsold full cases freight prepaid by you within 30 days for full credit, less a nominal charge of two dollars per case for reinspection and handling. But most groups reorder this super fund raiser. So place your order today!

Fuller Fund Raising Company/P.O. Box 4957/Montgomery, Alabama 36192

- Please send _____ cases of CHRISTMAS GIFT WRAP. Minimum order is 5 cases.
- Enclosed is \$2.00. Please send a sample Christmas Wrap Package and information on earning more money with FULLER FUND RAISING CHRISTMAS WRAP.

ORGANIZATIONAL INFORMATION

Your Name _____ Title _____
 Name of Group _____ No. Members _____ No. Selling _____
 Name of School/Church/
 Sponsoring Organization _____ Phone: (____) _____
 Organizational Address _____
 City _____ State _____ Zip _____

SHIP TO

Name of Person and/or Company _____ Phone: (____) _____
 Address _____
 City _____ State _____ Zip _____

ADULT RESPONSIBLE FOR ORDER/PAYMENT

Name _____ Home Phone: (____) _____
 Home Address _____ Work Phone: (____) _____
 City _____ State _____ Zip _____

Authorized Signature _____ Scheduled Sales Date _____

TERMS: Net 30 days after you receive your shipment or from your scheduled sales date, whichever is later. All orders subject to approval. Price and designs subject to change. We prepay all freight/handling charges for you and add the charges to your invoice. You are given **FREE MERCHANDISE**, and the retail value of this **FREE MERCHANDISE** covers your freight/handling charges. 296X65

scores but apparently assimilated the information better. Studies by the University of Nebraska on their college-level science discs also indicate positive results. Current studies involving the adaptation of these discs for high school levels and an evaluation of "The Word Problem Zone" disc described earlier should lend additional information as to the worth of these programs. Industry and the military have demonstrated the effectiveness of this new medium, and it is assumed that its value will transfer to elementary and secondary schools. However, the data is not conclusive as yet.

Teachers need more time to master the technology and plan for its most effective classroom use.

Probably the most comprehensive study of the use of videodiscs in schools — their problems as well as their potential — was a project funded by the Department of Education and centered on the forty-five elementary schools that made up the Videodisc Interactive Micro-computer Network. What we learned from this project is that teachers need more training in the use of the materials, more time to master the technology and plan for its most effective classroom use. Left to their own discretion, the majority of the schools used the materials in traditional ways, while 10 percent explored more innovative methods of creating new learning and teaching experiences. Three of the sites, for example, actually mastered their own videodiscs; others developed their own computer interface and authorizing language.

To realize the videodisc's potential, several steps must be taken: (1) New design and development programs must be experimented with; (2) Teachers must be given the time and training to learn how to use this resource; and (3) Careful evaluations must be made of the effectiveness of the systems in various levels of education.

What will the videodisc mean to the teacher? Effective introduction of technology into any area of life means increased productivity. In education, this means that the learner achieves more in a given unit of time or learns a subject in greater depth. These technologies can be another step in the professionalization of teaching, making the teacher more a manager of learning experiences than a dispenser of facts. The technologically competent teacher will have at his or her fingertips much higher standards of information. The critical job of the teacher and the student is to turn that information into knowledge, to assimilate it into functioning applications. One of the most rewarding experiences for a teacher is to see a student recombine information into formats that advance knowledge to new heights. The American education system has been uniquely qualified to stimulate such jumps forward. The new electronic technology offers us another such opportunity. □

'I AM ONE WHO WRITES'

(Continued from page 29)

writes "the longest story ever," another crafts and revises the first stanza of a poem, and still another marvels at how a favorite author has ended his story. As Pulitzer Prize-winning writer Donald Murray says, "We do not teach writing effectively if we try to make all students the same. We must seek, nurture, develop, and reward difference."

JUST AS a master potter demonstrates his or her craft before an apprentice, so, too, in the writing workshop teachers demonstrate what it means to be joyfully literate. They write alongside their students, and they talk about and share their writing. In doing this, teachers demythologize the writing process. Students learn that good writing does not emerge magically from a writer's plumed pen, but that instead we put our words, our thoughts onto the page in order to work with them. Once our ideas are fastened onto the paper, we can hold them in our hands, we can put them in our pockets, we can take them out later and think about our thinking. Writing, then, involves a tension between creating and critiquing, between writing and reading. We focus in to write, then pull back to ask questions of our text. We ask the same questions whether the writing is a poem about pussy willows or a book on oil spills. "What have I said so far? What am I trying to say? What's good here that I can build on? What's not so good that I can fix up? How does it sound? How will they read it?"

In *The Art of Teaching Writing*, I suggest that when teachers ask these questions of children in writing conferences, children internalize them and ask them of themselves and of their friends. Scott is six. I watched him scowl as he reread his homemade book. "This story should go in the trash can," he muttered. "See, the kids will have so many questions."

I SAW MY FATHER'S COLLECTIONS. THEN WE LEFT.

"I go through it wicked fast. The kids will say, 'What were the collections? What'd ya see?'" Scott's voice trailed off as he began to wind words up the margin of his page. He read the insert to me:

WE SAW BUTTONS, COINS, STAMPS AND OTHER STUFF.

"The kids will have questions still," Scott said, "but at least I got rid of some of them."

Morat, a sixth grader in P.S. 230 in Brooklyn, interrupted his friends to say, "I need your help. Where do I start my story? My father took my cousin and me on a boat trip but if I start the story in New York then I have to tell the whole thing to Florida and it will be boring."

Before the others could respond to Morat's problem, Hasun pulled a homemade map from his notebook and slid it over to Morat, who took the map and explained to me, "He's drawing my illustrations because I'm not such a good drawer." After scrutinizing the map, Morat decided Hasun wasn't such a good drawer either. He gave the map back to Hasun with orders for a second draft. The Great Lakes were too big. Now Morat returned to his initial problem, and this time Joseph had an idea.

"Try about six beginnings," he said, "and see if one turns out." Morat sighed, but agreed. "Once I get a good beginning it is like a corkscrew," he said. "The rest just comes pouring out." So he set to work . . . and later announced he had decided how to start the piece. "It's good. I'm starting with how, when we board the ship, they take pictures. I'll start with 'Smile . . .'" Then he added, "This story has everything: romance, excitement, and music."

Scott and Morat have learned to dialogue with their emerging texts, shifting from writer to critic, because their teachers have turned their classrooms into workshops in which teachers and children do what real writers do. The students in these classrooms choose their own topics, they write in a range of modes and for a variety of purposes, and they know that good writing comes from a process of dialoguing with one's emerging text.

It is the most natural thing in the world for a craftsman to watch an apprentice at work. Teachers need to do this with young writers so that we can see what works and does not work for them. To one child we might say, "I notice you continually interrupt yourself to think about spelling. Maybe it would help if you get your ideas onto paper first and only later check for spelling." To another child, we might say, "I notice you begin writing without spending any time at all planning the piece, and often you end up fully frustrated with what you've written. Maybe I could show you ways I plan for my stories, thinking in my mind's eye about whether the approach will work."

In time, children begin to monitor their own composing strategies and to consciously revise them. For example, when eight-year-old Susie reread her story about finding a skunk in the garbage can, she said, "It's a long story and usually I don't change my long stories, only the short ones. This time, I'm going to divide the story into sections, and then see if there are ways I can spread each section out by adding more details." These excerpts show the additions Susie made in one section of her story:

DRAFT 1

We went closer and looked in the garbage can. I didn't see anything but my father said, "He's there." We decided he was trapped in there, but how to get him out. I asked my father to pick me up so I could see the skunk. He did. I looked in, two glittering eyes looked up. The skunk looked exactly like the ones in the zoo.

DRAFT 2

My father very slowly walked closer. He shone the flashlight in the garbage can. "He's there," my father said. I was too short to see the skunk over the garbage can so I asked my father to lift me up. He did, I looked inside and there he was. It was a small skunk. It had a small head compared to the size of its body. The flashlight made its eyes glitter. I was still in looking at the skunk when my father started walking closer with me still in his arms. I did not want to get any closer to the skunk so I jumped down quickly.

'Once I get a good beginning, it is like a corkscrew. The rest just comes pouring out.'

When Susie shared her work with her classmates, some of them decided to use a similar revision strategy in their writing. During the next day's writing workshop, Birger told me, "I'm going to reread my cat story, trying to make parts larger, like Susie did. I'm going to add on to the part when I came out of the garage and walk to the accident. I'll tell about how when I was walking across the driveway, I smelled the air. It wasn't bad air, and I remember thinking it was hard to believe a part of me had just died, the air smelled so nice and clean. I'm going to add that in."

TEACHERS WHO are involved in the new emphasis on teaching writing have found that teaching, like writing, is a process of rough drafts and revision. Pulling in, pushing back; creation and criticism; we ask the same questions of our teaching that we ask of our writing: What have I said so far? What am I trying to say? How else could I approach this? What am I learning? Teachers of writing are asking these questions of their teaching, and the field is continuing to change as a result. Some teachers are looking into the kinds of corrections young children make with literature once they perceive themselves as insiders in the world of written language. Some are finding ways to use writing as a tool for learning in subject areas throughout the curriculum. Still others are finding that the role of researcher — of kid watcher — can instruct all that they do in the classroom.

The field is an exciting one not only because it is allowing children to grow in new ways but also because it is doing the same for teachers. □

SUGGESTED READINGS

Bissex, Glenda L. *GNYS AT WRK*. Cambridge, Mass.: Harvard University Press, 1980.

Calkins, Lucy McCormick. *Lessons from a Child*. Exeter, N.H.: Heinemann Educational Books, 1983.

———. *The Art of Teaching Writing*. Portsmouth, N.H.: Heinemann Educational Books (forthcoming, 1985).

Goodlad, John I. *A Place Called School*. New York: McGraw-Hill Book Company, 1984.

Graves, Donald H. *Writing: Teachers and Children at Work*. Portsmouth, N.H.: Heinemann Educational Books, 1983.

Harste, Jerome; Burke, Carolyn; Woodward, Virginia. *Language Stories and Literacy Lessons*. Portsmouth, N.H.: Heinemann Educational Books, 1984.

Murray, Donald. *A Writer Teaches Writing*. Second Edition. Boston: Houghton Mifflin Company, 1985.

Shaughnessy, Mina P. *Errors and Expectations*. New York: Oxford University Press, 1977.



**Your group can easily
earn \$180⁰⁰ to \$2,880⁰⁰
or more selling**

CHRISTMAS BOOTS 'N STICKS!

Boots 'N Sticks—A Christmas Tradition. Everybody needs them for gifts or decorating. That's for sure! So, what would be a better Fall fund-raising product than Fuller's Christmas **BOOTS 'N STICKS!** Packaged especially for groups like yours, they sell at a price everyone can afford. Peppermint or fruit flavored—truly the most beautiful Christmas decoration or gift offered for fund raising.

BIG PROFITS—INSTANT SELLER!

When you order **Boots 'N Sticks**, you will receive an easy-to-carry case of 24 boots. Each boot sells for \$2.00, or \$48.00 a case. You keep a profit of \$18.00 on the sale of each case. Each member in your group will be able to sell one or more cases of these proven money-makers. Here's how fast your profits add up:

YOU ORDER	YOU MAKE
10 cases	\$ 180.00
20 cases	\$ 360.00
40 cases	\$ 720.00
80 cases	\$1,440.00
160 cases	\$2,880.00

FULLER FUND RAISING COMPANY
P.O. Box 4957/Montgomery, AL 36192

Please send _____ cases Peppermint _____ cases Fruit Flavored Boots 'N Sticks.
(Minimum order is 10 cases. Christmas cases packed green, red, and white.)

Please Print:

ORGANIZATIONAL INFORMATION

Your Name _____ Title _____

Name of Group _____ No. Members _____ No. Selling _____

Name of School, Church, Sponsoring Organization _____ Phone (____) _____

Organizational Address _____

City _____ State _____ Zip _____

SHIP TO

Name of Person and/or Company _____ Phone (____) _____

Address _____

City _____ State _____ Zip _____

ADULT RESPONSIBLE FOR ORDER/PAYMENT

Name _____ Home Phone (____) _____

Home Address _____ Work Phone (____) _____

City _____ State _____ Zip _____

Authorized Signature _____ Scheduled Sales Date _____

TERMS: Net 30 days after you receive your shipment or from your scheduled sales date, whichever is later. All orders subject to approval. Price subject to change. We prepay all freight/handling charges for you and add the charges to your invoice. You are given **FREE MERCHANDISE** and the retail value of this **FREE MERCHANDISE** covers your freight/handling charges.

296A65

**Over 300,000 satisfied
customers have
experienced 25 years of
success with Fuller Fund
Raising Products!**

Start Your Sale Now!

CALL TOLL FREE 1-800-633-5732

to place your order.

(In Alabama, call 1-800-223-1739)



Fuller Fund Raising Company
P.O. Box 4957
Montgomery, AL 36192

4. A Different Kind of Career Ladder

I'm not opposed to a career ladder in principle, but most of the proposals I've seen are merely devices to give a handful of people more money than others. Many, perhaps most, are a kind of cover-up for merit pay. There are ways, however, of creating a meaningful career ladder. For example, since the training of teachers is at least in part the responsibility of colleges and universities, why not give the teachers who train newcomers during an internship period official employment status and rank on the faculties of area institutions of higher education that offer teacher training programs?

This would have a number of immediate benefits. First, the teacher trainers would receive additional compensation, some of which would come from the college or university. Trainers could serve for a limited period and be replaced with outstanding others, so there would be an opportunity for many to be part of such a program. Second, there would be an automatic change in the image and status of such teachers and undoubtedly some positive spillover in the public mind to elementary and secondary teachers in general. Third, one of the most valid criticisms of colleges of teacher education is that courses are given by many people who have never themselves taught in elementary and secondary schools but, rather, are scholars and theorists. Clearly we still need the theorists and the researchers, but such faculties ought to be leavened by those who have had considerable classroom experience and continue to practice in the classroom.

Certification by independent boards would eliminate the possibility of favoritism.

There is no reason to limit university employment status to classroom teachers who train other teachers. Teachers who are engaged in textbook evaluation or curriculum design might also give the university courses that teach newcomers how to do this. Legions of doctors and lawyers both practice their profession and teach in the institutions that train their future colleagues. It is a major mark of a true profession.

How would teachers qualify for higher rank within the profession? One approach would be to have national education specialty boards examine and certify teachers in their subject or specialty areas on a voluntary basis. Those going through the extra training, testing, and evaluation would be considered specialists and would receive more pay. In math, for example, interested groups could come together to establish requirements for becoming a board-certified math teacher. This would be similar to medical specialty boards that certify physicians who choose to undertake additional training and tests in a medical specialty beyond general practice.

This approach, which was first proposed by educational consultant Myron Lieberman in a piece published in 1959 in *Phi Delta Kappan* magazine and which is being updated for publication this October, would avoid the pitfalls associated with traditional merit pay schemes. Certification by independent boards would eliminate the possibility of favoritism by principals, superintendents, and school boards. In addition, since there would be no arbitrary limit on the number of teachers who could qualify for certification, it would not lead to the competition and demoralization associated with plans that decide ahead of time that only 5 percent, 10 percent, or 15 percent of teachers can be considered meritorious.

Since the certification would be nationally portable, it would also give teachers more career flexibility.

5. Restructuring the Delivery of Education

I am convinced that unless there is a wholesale restructuring of the way in which educational services are delivered, teaching will not become a genuine profession and schools will not be able to meet the needs of all students for an excellent education.

There are 2 million public school teachers in the United States. Half of them will retire and be replaced in the next decade. At the same time, there is going to be a talent shortage in this country; and given the increased demand for talent by new and revamped industries and by other agencies of government, there is very little chance that public education will get enough high-caliber career teachers. The demographics are against us.

So are the economics. We know that vastly increased teacher salaries will be needed to recruit and retain good teachers. Suppose we gave each teacher a 50 percent increase. That would still not make us a very well-paid profession, but, with pensions, taxes, and other costs, it would total approximately \$30 billion. Title I at its highest point was about \$3.5 billion, so there is no likelihood at all of giving 2 million teachers a 50 percent raise.

So we are not going to get either the talent or the money to replace a million teachers soon and another million some years later. What do we do? Part of the answer is to consider what it is that teachers do and whether part of it can be accomplished in some other ways, freeing teachers to do what *only* they can, the genuine, professional tasks. This would mean a smaller number of *career* teachers earning genuinely professional salaries, say, double the current rate. Let me suggest some parts of a structure to accomplish this:

- Career teachers would be assisted by substantial numbers of very bright college graduates who come into teaching for a variety of reasons — to repay a college loan, meet a scholarship commitment, fulfill some personal idealism in the same way people went into the Peace Corps — but who do not intend to stay more than five years or so. A good deal of the normal classroom work would be turned over to these very bright and idealistic “transients” who would not be regarded as career teachers, who would not have quite the same rites of passage into the profession (but would, nevertheless, have to demonstrate smarts and skills),

who would be trained by the career teachers and work under their guidance and mentorship — and who could, of course, should they ultimately want to, pursue a path to the level of career teacher.

Career teachers would be engaged not mainly in lecturing students but in actively coaching students, teaching thinking skills, stimulating creativity, working with students on rewriting papers, helping students learn to reason, argue and persuade. They would have far fewer students and be able to spend an appropriate amount of time with each. In addition, the career teachers would train the novice teachers, evaluate textbooks, select other materials, design curricula, serve on the professional practice boards that set and monitor the standards for the profession, be part of university faculties and engage in a variety of other activities both with students and with their colleagues.

● We need to use the new technology to do what it can do best, so that teachers will have the time to do what they do best. Three of the major education reports in the wake of "A Nation at Risk" dealt with what actually goes on in classrooms, those by Ernest Boyer, TheodoreSizer, and John Goodlad. Enormously sympathetic to teachers, they nevertheless were extremely critical of how teachers teach. They found that most teachers spend an inordinate amount of their teaching time, up to 85 percent, lecturing, with very little exchange with students. And, of course, since most teachers' lecture styles are not as entertaining as the previous evening's television fare, the attention span of the students (or even adults, for that matter) is not very long. Now, some of what teachers are lecturing about today can be dealt with much more effectively with the new technology. A well-produced half-hour videocassette on how the Eskimos live in Alaska is likely to communicate memorable information much better than any lecture, and in a medium that has already grabbed today's students from infancy on. The technology is here. Either we will seize it and use it to our advantage — to free teachers for what it is they can do uniquely, professionally — or it will be imposed on us in some unthinking attempt to replace some teachers without improving the work lives, status, or salaries of the others.

Why shouldn't teachers be given the flexibility to teach from their strengths?

● There is much more we could do to restructure schools and create a profession. Why shouldn't teachers be given the flexibility to teach from their strengths? Some elementary school teachers have a particular bent for math, others would prefer to focus on the teaching of reading skills. Why shouldn't teachers be able to trade off with their colleagues, not only in different subjects but in different aspects of the same subject? Some teachers have a particular knack for teaching writing, while others are especially talented in stimulating an appreci-

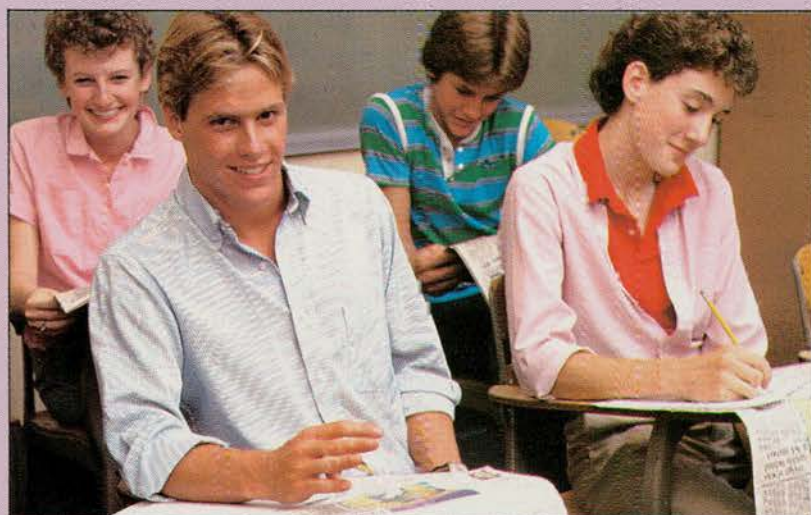
ation of poetry — why must both kinds be English teachers who do everything? Doctors and lawyers don't have difficulty in recommending colleagues with different strengths.

● Another major change would be to restructure our school calendar into shorter time units, perhaps terms no longer than six or even three weeks, in which less material and fewer concepts are fully taught. This would give teachers and students a better opportunity to zero in on anything gone amiss. The longer the wait, the harder it is to tell what's wrong — and waiting a year makes such analysis untimely and correction harder. That's why some students drop farther and farther behind. If we empowered teachers to improve the system — like Deming's managers — they might consider using time in much more varied ways, moving youngsters along at their own pace. The rigid school year encourages youngsters (and sometimes teachers) to follow the Scarlet O'Hara path — "I'll think about it tomorrow." After all, missing a few days in September or October doesn't seem very important when the reckoning doesn't come until June; but often by December, a child is too far behind to catch up, and the syndrome of failure sets in. Creative thinking on the shape of the school year is long overdue.

THERE ARE undoubtedly many other good ideas for our schools, and classroom teachers, if they have the opportunity, will come up with some of the best. But change is overdue. I am convinced that we will not attract the best and the brightest who are graduating today if teachers continue to be treated as they currently are, as workers in an old-fashioned factory who may not exercise judgment and discretion, who are supervised and directed by everyone from the state legislature to the school principal. Our schools are organized today exactly the way they were a century ago. Managers of other institutions are finding different and better ways to operate for these different times, but school administrators continue to cling to the factory model. For our part, we can continue, through collective bargaining, to make some incremental changes in salaries, in the size of classes, and in some other areas. But if that's all we do, we are likely to draw into teaching ever lower segments of the talent pool, with disastrous results for us, for our students, for public education, and for the country. In order to turn the situation around, we have to take a number of serious steps such as those I've discussed.

Many of us will ask how — even whether — these changes will be accepted by our members. They are huge and revolutionary. But this is not the first time we've had a vision of what needed to be done. How many thought a quarter of a century ago that more than half a million teachers would join a union? We did. How many thought that government bodies would sit at the table and deal with us as equals? Or allow a dispute between the "sovereign" government and public "servants" to be argued on the merits and decided by outside impartial arbitrators? We who lead teachers were once only a handful of believers with a vision, but we accomplished what most thought impossible. Now we have the same goals but a new vision. Now we must make a second revolution. □

FREE HANDBOOK



It's stimulating, motivating, flexible, complete with TODAY's NEWS, SPORTS, MONEY, and LIFE . . . 94% of the teacher users rate it excellent or good . . . it's CLASSLINE, USA TODAY's education program. It helps students improve reading, writing and problem-solving skills.

With a 50% scholastic discount rate of 25¢ per copy for classroom sets, USA TODAY is affordable and can be delivered on a flexible schedule along with these FREE Curriculum Guides — Reading/Language Arts, Elementary, Current Events, Issues and Problems and Economics/Business.

To find out more about CLASSLINE, call us today. And just for calling, we'll send you USA TODAY's Handbook for Educators. FREE. You'll get a behind-the-scenes look at USA TODAY, the media phenomenon, along with a preview of CLASSLINE programs for the 1985-86 school year.

The national newspaper with local service to your classroom.



Call today for your FREE Handbook, or to order USA TODAY.

Alabama (800)368-3024 x 5316
 Alaska (206)882-3324
 Arizona (800)325-5333/(602) 961-8000
 Arkansas (800)368-3024 x 5316
 California(N) (800)368-1883/(415)283-7660
 California(S) (800)922-9150/(714)554-4900
 Colorado (800)257-7077/(303)850-7444
 Connecticut (800)223-7789/(203)859-3535
 Delaware (800)235-9100/(302)573-2259
 D.C. (800)638-2222/(703)644-4706
 Florida(N) (800)432-2174/(305)857-0921
 Florida(S) (800)433-0004/(305)484-0800
 Georgia (800)368-3024 x 5316/(404)299-3837
 Hawaii (808)945-1125
 Idaho (800)368-3024 x 5316
 Illinois (800)321-5278/(312)953-2111
 Indiana (800)824-1345/(317)359-7314
 Iowa (800)368-3024 x 5316
 Kansas (800)222-1470/(816)241-7700
 Kentucky (800)543-4002
 Louisiana (800)USA-TODAY/(504)733-4700
 Maine (800)368-3024 x 5316
 Maryland (800)638-2222/(301)298-5580
 Massachusetts (800)462-5506/(617)935-4556
 Michigan (800)221-1849/(313)548-7000
 Minnesota (800)368-3024 x 5316/(612)646-4100
 Mississippi (800)222-8015
 Missouri (800)892-8726/(816)241-7700
 Montana (800)824-4179

Nebraska (800)368-3024 x 5316/(402)341-2992
 Nevada (800)368-3024 x 5316/(702)362-1988
 New Hampshire (800)368-3024 x 5316
 New Jersey (N) (800)223-7789/(201)343-2718
 New Jersey (S) (800)523-1281/(609)662-4700
 New Mexico (800)633-7381
 New York (NYC) (800)522-0566/(718)631-0600
 New York (W) (800)368-3024 x 5316/(716)695-7211
 North Carolina (800)532-0062/(704)527-4472
 North Dakota (800)368-3024 x 5316
 Ohio (800)241-8094/(513)821-8770/
 (614)846-3766
 Oklahoma (800)368-3024 x 5316
 Oregon (800)872-9060/(503)626-2363
 Pennsylvania (W) (800)822-2039/(412)963-0808
 Pennsylvania (E) (800)222-2776/(215)251-0320
 Rhode Island (800)368-3024 x 5316
 South Carolina (800)532-0062/(704)527-4472
 South Dakota (800)368-3024 x 5316
 Tennessee (800)252-1USA/(615)252-1USA
 Texas (N) (800)442-8721/(214)484-3994
 Texas (S) (800)392-5894/(713)944-0208
 Utah (800)824-4179/(801)973-0755
 Vermont (800)368-3024 x 5316
 Virginia (800)638-2222/(703)644-4706
 Washington (800)368-3024 x 5316/(206)882-3324
 West Virginia (800)368-3024 x 5316
 Wisconsin (800)368-3024 x 5316/(414)786-4998
 Wyoming (800)824-4179

USA TODAY'S Handbook for Educators

A close-up look at USA TODAY and its education program CLASSLINE.

USA TODAY CLASSLINE



Or write: CLASSLINE, P.O. Box 500 CLE, Washington, D.C. 20044

Look at Us!



Now in its third year, "Inside Your Schools" continues to be the only regularly scheduled national TV series devoted exclusively to covering public education in America.

Join series host Steve Allen as he follows video crews right into the classroom each month to observe skilled and dedicated teachers at work and see outstanding educational programs that meet the needs of the broadest spectrum of students.

The 1985-86 season starting in October features eight half-hour shows, each focusing on one major challenge facing our nation's schools today:

Early Childhood Education—Education and our Environment—Getting into College—The Problems of Adolescence—Teaching Children To Think—Education and Censorship—Education and the Gifted—Extracurricular Activities.

"Inside Your Schools" has established a reputation as a reliable forum for sharing ideas and opinions among parents, teachers,

school administrators, and others who realize that quality public education is essential for the survival of our democratic society.

Watch for it on the 650 systems affiliated with The Learning Channel, on numerous other cable stations, and on more than 80 PBS stations.

For further information, write "Inside Your Schools," c/o The American Federation of Teachers, 555 New Jersey Avenue, N.W., Washington, DC 20001.



**INSIDE
YOUR
SCHOOLS®**

American Federation of Teachers
555 New Jersey Ave., N.W.
Washington, DC 20001

Nonprofit Org.
U.S. Postage
PAID
Permit #3826
Washington, D.C.