

Don't Start the Evolution Without Us!

LEWIS A. RHODES

If you can pass this test, don't read this article. (1) *True or False:* Society is in the midst of a technological revolution. (2) *True or False:* Comprehensive planning and extensive teacher training are essential before purchasing computers for schools. (3) *True or False:* There are experts who can answer all your questions about computers and other new technologies. *Correct answers:* (1) false, (2) false, (3) false.

How can the above beliefs about computers be false when much of our prior experience suggests the opposite?

If you have been involved with the introduction of microcomputers at the *building* level you most likely already know the answer. Something different is happening that challenges many of our assumptions about technological innovation in education. It is not just that the technology is different (which it is), but that it is having unanticipated effects on the environments in which it is used. These differences present a challenge to today's educational leaders who are, in essence, expected to provide direction without having enough relevant experience. Since experience-based knowledge is an effective leader's primary resource, this creates an unusual situation—but one that can have more positive than negative consequences.

What exactly is so different about this situation?

1. Microcomputer technology is a *personal* technology. It is related to its larger forebear, the mainframe computer, as the telephone is to the radio station. That is, in both situations the

"smaller" and "larger" technologies display the same physical properties, but people approach and use them quite differently: one is a personal tool while the other is a tool for wider applications. The utility of a personal tool is that it extends the individual's own capacities. Clearly, microcomputers are beginning to do this. Computer buffs, for instance, have benefited from a greater sense of personal satisfaction, control, achievement, and (in some cases) escape.

2. The second difference is the ways we are responding to the first difference. Computers are entering the schools along two very different paths, each evolving from the recognition or non-recognition that the microcomputer is a tool different from "educational technologies" of the past.

Along one route educational leaders employ traditional "top-down" approaches to plan, train teachers, purchase hardware and software, and insert computers into the curriculum. Along the other route, they recognize that one cannot develop comprehensive plans without experience; that they must instead operate with smaller increments of time and resources through a process of informed trial and error; and that the "knowledge base" most relevant to their current decision needs lies not in research but in the current experiences of their peers, which are shared through

new networks, user groups, and publications. As a superintendent of a large Eastern school district put it:

I think getting started is a process that's a bit different from some other efforts of managing improvement in schools. Because microcomputer technology is so widespread in our society, you have to find ways to get the machines into the schools without planning to get ready for them. Simply find ways to purchase the machines, or to facilitate purchase of the machines. Get the machines in there first. Provide access to the machines, and then, as a second phase of the operation, use the results in planning for their intelligent use.

Those working along the first, "traditional," pathway believe they are in the midst of a technological *revolution*. Those progressing the second route believe they are participating in a technological *evolution*. The differences are more than semantic. In a revolution there are leaders, followers, and others who sit it out and hope it will go away. One can be left behind and feel some urgency to catch up. In an evolution, on the other hand, everyone progresses somewhat equally on the same wave. Everyone's participation and experience are of value since they can contribute to a larger understanding and sense of direction. While revolutions are reactions to the past that focus on a desired future, evolutions deal in the present with the knowledge that the future will be shaped by the ways we work out answers to today's problems. This situation was described by an acting superintendent of a suburban school district:

It's hell. We're dealing with a situation where, first of all, none of us knows what

Lewis A. Rhodes is Assistant Director for Technology, ASCD, Alexandria, Virginia.

seems to be coming down the pike, so we're groping. Number two, there is a very short experience span of people using microcomputers. It's not like math where we've got a lot of people who have been teaching math for a long time. You can dip into that experience. When it comes to micros in education, it's a few people working for a few years. Organizing and orchestrating an effort like this—with the short experience base and the small number of people you can talk to—gives me a sense of terror sometimes. As they used to say when airmail was starting, we've flown by the seat of our pants, but we've done our best. I think it has worked pretty well. Something can always go wrong, but with the number of people—teachers and children—that we've involved, the investment that we've made in hardware, and the commitment that we've made for the future, we can't stop. It gets faster and faster. This all may sound negative, but if I had the chance to do it over again, I would. The risk is worth it.

Education associations, too, are caught up in the same evolutionary wave. New responses are required to help practitioners contribute to and share in the development of new solutions to old problems. ASCD's response has been to add a new staff position dealing with technology, and to initiate new services aimed at finding:

- Ways to tap the experiences of those in similar situations with similar concerns

- Opportunities to discover the consequences of using these new tools: what they allow us to do with them.

One of my first activities is this feature in *Educational Leadership*. This will not be a hardware/software column but one that attempts to present issues raised by these new technologies; that provides a vehicle for your experiences, ideas, and learnings to be shared with others; and that focuses on the experiences of this generation of educational leaders. The future of technology in education is not in the hands of the hardware and software developers. It will be a direct consequence of the decisions we make today. Awareness of our own feelings and behavior is an important first step to developing the understanding needed for planning and implementing programs for students.

We are all part of an exciting evolutionary phase of human existence. Are we willing to jump in, learn before someone tries to teach us, take the risk of new actions without prior proof that they'll work, and help shape the future with what we do and learn? The future will be here someday . . . that's not our problem. Let's not let the *present* get by without us. □

Join the Evolution

Write to us about how the technology evolution is affecting your school and your role. For example, how has the use of computers or other forms of technology:

- Been the means for desired improvements, such as providing for individual differences or teaching higher-order thinking skills?

- Been a catalyst for other positive changes, such as greater community involvement or peer tutoring?

- Served to illustrate principles of teaching and administration, such as the importance of personal control and satisfaction in acceptance of new ideas?

Write to: Lewis A. Rhodes, Assistant Director for Technology, ASCD, 225 N. Washington St., Alexandria, VA 22314.

Reviews

Handbook of Teaching and Policy.

Lee S. Shulman and Gary Sykes, editors.
Longman, Inc., New York and London:
1983.

—Reviewed by Evelyn Blose Holman, Executive Director of Curriculum and Instruction, Frederick County Board of Education, Frederick, Maryland.

Lee Shulman and Gary Sykes' *Handbook of Teaching and Policy* deserves serious attention as a refreshingly sound treatment of the complexities of America's schools. The authors merge re-

search on teaching with an analysis of policy, a task ignored by the ever-increasing number of people seeking to influence education. They offer a telling metaphor of policy's influence on the schools: "At the century's turn, the school was an avocado: a solid core of adult authority, a meaty homogenous middle layer of students, and a thin skin of external policies," but the high school turned into a "cantaloupe" during the 50s. By the 80s, it had become a "watermelon with a thick rind of external policies, a large and diverse student body, and adult authority scattered

throughout like watermelon seeds." The metaphor aptly captures the message of the book: policies often translate into a maze of regulations that weaken the school's ability to function and to serve an academic purpose.

Chapters by Michael Rutter and Thomas Good provide useful summaries of the burgeoning research that confronts and attempts to comprehend classroom complexities. Part two, "Teaching as Work and Profession," is a thorough and thoughtful study of the circuitous nature of policy regulations and labor relations. Douglas Mitchell

and Charles Kerchner claim that "most school districts now contain two distinct social organizations, each competing for the loyalty and cooperation of the teachers." Spiraling mandates to counteract strong labor often result in "compliance rather than excellence, maintenance of effort rather than appropriateness of service, and following guidelines rather than responding to needs."

Part four, "Teaching and Educational Policy," makes it clear that effective implementation of power does not come tumbling down from the top. Richard Elmore emphasizes that without teacher support the mandated implementation becomes meaningless and "the game is essentially lost." Michael Kirst points out that trusting and training teachers, too frequently overlooked in policy making and implementation, may be necessary if policy is to succeed. Lee Shulman theorizes that the mandatory process in itself may be self-defeating because those people who carry out the mandate feel like subordinates who must grudgingly concede their lack of power. The current focus on education by the media may only aggravate such feelings of helplessness. John Schuille describes and decries the "political brokering" that forces teachers to give up their commitment to what is good for students in the face of conflicting mandates.

Gary Fenstermacher and Marianne Amarel warn that "teachers, like learners, may be advised, encouraged, offered evidence, asked to consider possibilities, and questioned; but commanding, mandating, or insisting on compliance does not aid their understanding of their work, nor does it permit them to learn from their work." David Greenstone and Paul Peterson echo their fellow authors' claim that "policies, rules, and instructions offered from outside the school are ignored, subverted, and implemented in ways unintended by their authors."

Those who would influence education must understand the difference between policy intention and policy implementation, between simple solution and complex reality, and most of all, between legislating schooling and inspiring individuals. Shulman and Sykes' book furthers such understanding.

Available from Longman, Inc. College Division, 1560 Broadway, New York, NY 10036, for \$30.00.

A Delicate Balance: Church, State, and the Schools.

Martha M. McCarthy.
Bloomington, Indiana:
Phi Delta Kappan Educational
Foundation, 1983.

—Reviewed by Bill Morrison, Professor of Education, School of Education, Central Connecticut State University, New Britain, Connecticut.

Church-state-school relations have been and continue to be a complex and controversial issue in American life. First Amendment and Tenth Amendment rights regarding religion and education are under constant examination and interpretation by special interest groups and the judiciary.

A Delicate Balance provides a comprehensive analysis of this topic by focusing on legal developments regarding Bible reading and prayer in the schools, challenges to curriculum, religious exemptions, and state-federal relationships with parochial schools. Educators, parents, and other interested parties will find this well-documented, thoroughly readable book a valuable resource.

Available from the Phi Delta Kappan Educational Foundation, Bloomington, IN 47402, for \$6.00.

Integrated Skills Reinforcement.

Joann Romeo Anderson.
New York, New York:
Longman, Inc., 1983.

—Reviewed by Robert Walch, Carmel High School, Carmel, California.

In an attempt to address the problem of students' inability to deal comfortably with the substance of their courses, a group of faculty members at New York City's La Guardia Community College devised a series of instructional approaches to teach their various subjects while simultaneously reinforcing students' use of language skills.

The resulting "language across the curriculum" program, which integrates reading, writing, and oral/aural skills, is applicable on either the secondary or college level. Divided into five major sections assessing students' communications skills, reading successfully, and integrating language skills for content mastery—this highly practical approach to integrated skill reinforcement spells out concrete methods for getting the job done in the classroom.

The beauty of the program is that it can be easily adapted to fit the content or structure of any course as well as the teaching style of any instructor.

Available from Longman, Inc., 1560 Broadway, New York, NY 10036, for \$14.95.

Improving Middle School Instruction: A Research-Based Self-Assessment System.

Judy Reinhartz and Don M. Beach.
Washington, D.C.:

National Education Association, 1983.

—Reviewed by Robert McCarthy, San Leandro Unified School District, San Leandro, California.

Those who work with early adolescents will find this 63-page book packed with useful information. Key developmental facets of the ever-changing youngster are examined first, followed by a brief synopsis of the current research on effective instruction. From this, Reinhartz and Beach develop a series of brief checklists directly related to lesson success. These lists can be used for teacher self-assessment as well as for staff evaluation. An excellent case study demonstrates how the system actually works for the classroom teacher.

The appendix is loaded with practical inventories, scales, checklists, and forms ready for immediate use by the teacher. The performance evaluation checklist is excellent. The authors also include a comprehensive, current bibliography.

Available from National Education Association, 1201 16th St., N.W., Washington, DC 20036, for \$6.95.

Learning in Groups.

Clark Bouton and Russell Y. Garth,
editors.

San Francisco:

Jossey-Bass Inc., 1983.

—Reviewed by David Johnson.

Any educator interested in college teaching, adult education, or small-group learning will find this book interesting and useful. The contributors share their experiences in using learning groups in college math classes of up to 350 students, physical science classes of up to 180 students, and in medical, business, and humanities courses. The basic message is that learning in groups (irrespective of the type of institution, student, age level, or subject area) improves achievement and promotes higher level thinking strategies, generic cognitive abilities, and interpersonal and professional skills. The first seven chapters describe specific applications of learning groups, and the last three chapters focus on the learning experience and teaching role inherent in the use of learning groups. Contributors conclude that learners must construct knowledge for themselves, not receive it fully formed from an instructor.

Available from Jossey-Bass Inc., Dept. 62425, P.O. Box 62000, San Francisco, CA 94162, for \$7.95.

Raising Good Children.

Thomas Lickona.

New York:

Bantam Books, 1983.

—Reviewed by William R. Martin, Department of Education, George Mason University, Fairfax, Virginia.

Lickona connects ten ideas for raising good children to Kohlberg's moral development theory and weaves them throughout the book with examples, box summaries, research (on "bonding," for example) and specifics on what parents and teachers can do to implement a "fairness approach to conflict." He explains each "stage" so parents can keep the moral growth process going. Lickona shows how children operate with actions as well as moral reasoning. Educators

might rather read than buy *Raising Good Children*. They could, however, recommend it to parents who want to employ a moral development approach for meeting the author's opening challenge that "a child is the only known substance from which a responsible adult can be made."

Available from Bantam Books, 666 Fifth Ave., New York, NY 10103, for \$15.95.

Young People Learning to Care.

Mary Conway Kohler.

New York:

The Seabury Press, 1983.

—Reviewed by Sylvester Kohut, Jr., Chairman, Tennessee Technological University, Cookeville.

This book features recollections of the author's seven decades of helping youth learn through responsible community service and self-help projects, and describes the aims and activities of the National Commission on Resources for Youth, which Kohler found and chaired for many years. Kohler highlights several of the 30,000 plus nationwide projects including successful tutorial, peer counseling, and day care projects in which young men and women are provided with opportunities to learn by serving others.

This is an informative and inspiring book of special interest to guidance personnel, human and social service workers, and classroom educators searching for new directions for assisting troubled youth.

Available from The Seabury Press, Inc., 815 Second Ave., New York, NY 10017, for \$7.95 (paperback).

Computer-Assisted Instruction: Its Use in the Classroom.

Jack A. Chambers and Jerry W. Sprecher.

Englewood Cliffs, N.J.:

Prentice-Hall, Inc.

—Reviewed by James Nighswander, Sangamon State University, Springfield, Illinois.

Computer Assisted Instruction: Its Uses in the Classroom is really two books packaged under one cover because, as the authors acknowledge, it is directed toward two audiences. The first section of the book is for the non-technical reader with little or no background in educational computing. There is an excellent overview of CAI and its uses in the classroom. Included also is an introduction to computer applications in education and a guide to planning for the implementation of computer-assisted-instruction. The discussions on getting started in educational computing and the selection and evaluation of CAI software are particularly worthwhile.

The second part of the book is directed to educators experienced in the uses of computers and those who have an interest in authoring instructional software. This portion of the book requires an extensive knowledge of computers plus a background in learning theory and curriculum planning.

Computer Assisted Instruction: Its Uses in the Classroom has much to offer to both the computer-experienced and computer-inexperienced reader. However, because the authors attempt to span the broad range of CAI from orientation to courseware development, both groups may find some parts inapplicable to their needs.

Available from Prentice-Hall, Inc., Englewood Cliffs, NJ 07632, for \$12.95.

Correction

Incorrect information was published in the March review of two books written by William J. Stewart. The publisher of *Unit Teaching: Perspectives and Prospects* is R & E Publishers, P.O. Box 2008, Saratoga, CA 95070. The price of *Transforming Traditional Unit Teaching* is \$3.95.

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