

REVIEWS

The Evolution of American Educational Technology

by Paul Saettler

Englewood, CO: Libraries Unlimited, 1990

Reviewed by Warren B. Roby,

Department of Foreign Languages and Literatures, Washington State University

For many Educational Technology connotes machine-mediated instruction. Paul Saettler of California State University, Sacramento begins his book by demonstrating that in its root sense, technology more properly refers to the systematic application of knowledge to human activity. He stresses that machines are not essential to this process. He is by no means the first to call for a return to the etymological meaning of technology. In his first chapter Saettler summarizes the unsuccessful attempts by the oldest and largest professional group in the field, the Association for Educational Communications and Technology (AECT) to establish the definition of Educational Technology as the systematic design of instruction. Saettler laments the failure of this

definition to take hold by pointing to the "ambivalent theoretical conceptions" of the term which "still prevail in the professional theory and research writings" (p. 8) of the AECT's own publications!

With educational technology defined as any systematic approach to instruction, Saettler proceeds about his task. It is one which takes him 541 pages (plus appendices) to complete. The result is the major study of the field. It should be noted that this book is an expanded and updated edition of his 1968 work, *A History of Instructional Technology*. This new work can either be read as a narrative or consulted as a one-volume encyclopedia. This reviewer prefers the latter approach, although as will be shown below, there are deficiencies which keep it from achieving the comprehensive aim of an encyclopedia proper.

Although the title has "American" in it, Saettler devotes his second chapter to summarizing attempts at systematic instruction in Europe. He begins with the Elder Sophists in fifth century B.C. Athens. From Antiquity he shifts to Abelard, Lombard, and Aquinas of the Middle Ages. He next

Warren G. Roby is Director of the Language Learning Resource Center at Washington State University, Pullman, WA.

Reviews

discusses Johann Amos Comenius (1592-1670), whom he calls "the first true forerunner of modern educational technology" (p. 31). Late eighteenth and early nineteenth century writers Joseph Lancaster, Johann Pestalozzi, Friedrich Froebel, and Johann Herbart are each accorded several pages in this chapter. Chapter 3 continues the discussion of the forebears of educational technology with late nineteenth century and early twentieth century theorists and innovators such as Maria Montessori, Kurt Lewin, Jean Piaget, and the Americans Edward Thorndike, John Dewey, B. F. Skinner and others.

The next five chapters deal with the first half of this century. Chapter 4 covers educational film for the period. Chapter 5 chronicles the rise and fall of the Visual Instruction movement. Chapter 6 is devoted to the use of educational technology during World War II. Chapter 7 concerns educational radio. Chapter 8 summarizes research about the use of all these media.

Chapters 9 — 15 treat the three decades from 1950 to 1980. The influence of communication theory (9), behaviorism (10), and cognitive science (11) are discussed. The field of Instructional Design is introduced in Chapter 12. Educational broadcasting (radio and television) is handled in Chapter 13. Chapter 14 examines the impact of the new information society on educational technology. Chapter 15 is devoted to educational technology research during the timeframe.

The last four chapters (16 — 19) focus on the present and future character of educational technology practice and research. Chapter 16 is mainly given to an introduction of new information technologies (e.g. equipment) whereas Chapter 17 presents new theoretical and research vistas. Chapter 18 lists several of the field's professional organizations, publications, and conferences

and discusses the training of practitioners. In Chapter 19 Saettler provides a state-of-the-art summary of the field and concludes with a brief speculation on its future prospects.

The skeleton of Saettler's book has been sketched. The flesh consists of readable prose and a few pictures of key individuals in the field and early pieces of equipment. The documentation is extensive and the endnotes themselves contain many interesting anecdotes and trivia (e.g. # 6 on page 117 about the true inventor of the motion picture). Saettler is generally to be commended for his writing style; however, pages 149-159 exemplify his occasional repetitiveness. He is impartial except perhaps when he takes the AECT to task (pp. 502 & 526) for not keeping up with the times.

With due respect to Saettler's apparent sincerity and with an appreciation of the enormity of the task, this reviewer must point out a major shortcoming: the use of technology to teach foreign languages is only barely mentioned. He gives two short paragraphs to the *Orbus pictus* of Comenius, but most other references to foreign language teaching are made in passing (e.g. pp. 201, 243, 297, 299, and 308). Language laboratories are granted only one paragraph (p. 187)! Perhaps this gross oversight is because of Saettler's preoccupation with visual instruction. Although radio was treated in Chapter 7, I could not find a single reference to the educational use of the phonograph or other means of sound recording! This negligence extends to his otherwise good summary of media research. For example, he makes no mention of the famous Pennsylvania Project which examined the effectiveness of language laboratories in the mid 1960s.

If it is true that "language teachers as a body have been more ready than most to accept and explore the pedagogical

potential of new technologies as they have emerged" (Last 1989; p. 15), then *The Evolution of American Educational Technology*, for all its merits, is not the complete record of educational technology. The blame for this lacuna does not lie entirely with Saettler. Although some good first efforts have been made (Barrutia 1967; Peterson 1974), the history of language laboratories still needs to be written, and it is up to those of us in the field to undertake the task. Doing so will help gain the recognition of the broader educational community for the technology work of language teachers. Moreover, it will guard us from the error decried by George Santayana (quoted by Donald Ely in the foreword to Saettler's book): "Those who do not remember the past are condemned to relive it." In this vein the reader is especially encouraged to read Saettler's pages 467-470 which summarize the research of Larry Cuban as to why technology often fails to effect significant change in educational practice.

Criticisms aside, this reviewer heartily recommends *The Evolution of American Educational Technology* to his colleagues interested in the use of technology to assist

language learning. We have drawn heavily from general educational technology in our work and should continue to do so. Indicative of past influences and of future ones is an organizational link: the IALL grew out of the AECT and the two associations have recently reestablished official relations (IALL is now an affiliate of AECT). Let us write our share of the history of educational technology and publicize our current efforts in the field so that we will be recognized as peers with our colleagues in other content areas.

REFERENCES

- Barrutia, R. 1967. The past, present, and future of language laboratories. *Hispania*. 50: 888-899.
- Last, R.W. 1989. *Artificial intelligence techniques in language learning*. Chichester, England: Ellis Horwood Limited.
- Peterson, P. 1974. Origins of the language laboratory. *NALLD Journal*. 8: 5-17.

DIGICALL MAKES FOREIGN LANGUAGE A MOVING EXPERIENCE.



Now, transform any room into a learning lab with Digicall ... the portable language lab from Fleetwood. Sophisticated, yet easy to use, this cost-effective alternative to fixed language labs includes everything you need in one, compact unit: wireless headsets, mobile console/control center and easy-to-install antenna.



Design your Digicall to accommodate virtually any lesson format: cassette, turntable, CD, AM/FM and VCR. You can even interact with computer, video and satellite for a leading edge learning system.

Add a new level of efficiency to your language department ... and your teaching day ... with Digicall — the mobile teaching system from Fleetwood. Call 1-800-257-6390 or (616) 396-1142.



FLEETWOOD

P.O. Box 1259
Holland, MI 49422-1259