

Choosing and Using Technologies in Education and Training

Resources in Broadcasting

Further Reading

Bates, A. W.

1995, *Technology, Open Learning and Distance Education*, London: Routledge.

A book which provides an eminently useable methodology for making competent and informed decisions on choice and use of technologies in education. Bates sets out criteria for decision-making based on an analysis of common questions each institution must answer for itself, to do with access, costs, teaching and learning, interactivity and user-friendliness, organisational issues, novelty, and speed. Teachers and managers will find the first chapter especially useful. In it, Bates proposes '12 golden rules' for using technology in education and training: good teaching matters; each medium has its own aesthetic; educational technologies are flexible; there is no 'super-technology'; all major media types should be available to teachers and learners; balance variety with economy; interaction is essential; student numbers are critical; new technologies are not necessarily better than old ones; teachers need training to use technologies effectively; teamwork is essential; and technology is not the issue but how and what do we want students to learn is.

Subsequent chapters deal with the educational, technical and cost issues involved in technology selection and implementation of four major types of media: print, television, audio (including telephone), and the computer. He concludes with a thoughtful look at the future of technology and its limitations in education and training.

Catchpole, Michael

1993, 'Interactive media: the bridge between distance and classroom education', in *Distance Education Futures*, ed. Ted Nunan, Papers from 11th Biennial Forum of Australian & South Pacific External Studies Association, July, Adelaide, pp. 37-55.

An engaging paper on the use of live, interactive television which covers issues of design, structure and support. The author is a Canadian teacher noted for the telecourses he teaches over the Knowledge Network in British Columbia and the article walks the reader through the experience of designing and teaching a course.

Laurillard, Diana

1993, *Rethinking University Teaching: a Framework for the Effective Use of Educational Technology*, London, Routledge.

This book, written by a leading UK Open University academic, has greatly influenced approaches to staff development in Australian universities in recent years. Laurillard sets out a framework to help teachers think about the nature and processes of learning and how best to use and combine new and established media in their teaching. Part 1 explores students' learning, and what it is that they need from educational technology. Part 11 looks at individual teaching methods and media,

including non-interactive media (lectures, print, audio), hypermedia (CD-Rom and the Web), and interactive media (simulations, modelling programs). Part 111 examines design methodology, designing learning activities, setting up the learning context, and maintaining quality.

MacKinnon, Allan, Walshe, Bridget, Cummings, Michael & Velonis, Ursula

1995, 'An inventory of pedagogical considerations for interactive television', *Journal of Distance Education*, Vol. 10, No. 1, pp. 75-94.

The presence of cable TV has enabled British Columbian educators to use TV for teaching in increasingly sophisticated ways over the last 20 years. This article describes the use of multi-point interactive television conferences using a fibre optics telephone network; some were used as professional development for teachers, others for bringing together school students in scattered locations. The examples show much imagination and ingenuity.

National Council for Educational Technology,

1993, Direct Broadcasting by Satellite, National Council for Educational Technology, UK.

<http://www.ncet.org.uk/projects/dbs/> Site accessed August 1997.

An evaluation by the Faculty of Education, University of Leeds, of a large scale program called Satellites in Schools which involved direct broadcasting by satellite to 226 secondary schools in Wales. The report covers details of the equipment, its installation and support, program development and scheduling, and a formative evaluation of teaching/learning issues including interest and motivation, providing up to date resources, authenticity, learning effectiveness, learner independence, etc. Several case studies follow the project in detail.

Oliver, Ron & Grant, Mike

1994, *Distance Education Technologies: a Review of Instructional Technologies for Distance Education and Open Learning*. Perth: InTech Research, Edith Cowan University.

A highly practical and very useable guide to the various instructional technologies that can be used to support distance teaching and flexible learning. Four groups of technology are outlined - telelearning (including various forms of television and teleconferencing); computer mediated communications; computer mediated instruction; and print and other 'hard copy' materials. Each section briefly describes the technology, its instructional applications and learning opportunities, its relative strengths and weaknesses as a delivery medium, the costs and equipment required to support its use, and information on groups and organisations able to provide services and assistance to providers of education and training.

Tkal, Lucy (Series editor)

1997, *Technology Survey Report* (3rd ed.), Open Training and Education Network, NSW TAFE.

A deservedly popular and eminently useable introduction to the communications

technologies available for flexible learning, the Report is a handy reference to keep at one's elbow. Technologies covered include the range of teleconferencing, computer mediated communications, computer managed learning, broadcasting, and online technologies. Each section describes the technology, its applications, equipment and service requirements, its advantages and disadvantages, and cost factors.

Willis, Barry

Distance Education at a Glance.

<http://www.uidaho.edu/evo/distglan.html>. Site accessed July 1997.

A set of 14 concise, well-presented guides on distance learning, covering an overview, teaching strategies, instructional development, evaluation, instructional television, instructional audio, computers in distance education, print in distance education, learning strategies, distance education research, interactive videoconferencing, the worldwide web, copyright, and a glossary of terms. The guides can be downloaded free.