

# Choosing and Using Technologies in Education and Training

## ***Resources in Classroom Teaching***

### 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.

**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.

**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.

**Ramsden, Paul**

1992, *Learning to Teach in Higher Education*, London: Routledge.

This well researched, thoughtful book by a leading Australian academic addresses the problem of how best to evaluate and improve the standard of teaching in a climate of accountability and appraisal. Designed for practitioners, it links educational theory and the practical realities of teaching, arguing for a more professional approach to teaching. Ramsden outlines the experience of learning and teaching from the student's point of view, sets out a set of principles for effective teaching. He then considers these principles in the light of four problems commonly encountered by teachers - organising course content, selecting teaching methods, assessing student learning, and evaluating the effectiveness of teaching. Case studies of good practice are used to link theory and practice, and the book concludes with examination of appraisal, performance indicators of teaching, accountability, and educational development and training.

**Robson, Joan**

1996, 'The effectiveness of teleconferencing in fostering interaction in distance education', *Distance Education*, vol. 17, No. 2, 1996, pp. 304-334.

A detailed study of the use of teleconferencing in teaching Year 11 and 12 mathematics students in a cluster of rural schools in NSW. Although one aim was to improve interaction among students, most interactions were between individual students and the teacher, and the study raises useful questions about lesson structuring, power and control in the class, and the potential advantages of using audiographics rather than audioconferencing for the purpose.