

# Choosing and Using Technologies in Education and Training

## Resources in Print Materials

### 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.

#### **Chambers, Ellie**

1994, 'Collaborative publishing in distance education: economics and pedagogy', in *Economics of Distance Education*, eds. G. Dhanarajan, P. K. Ip, K. S. Yuen, & C. Swales, Hong Kong: Open Learning Institute Press.

Co-publishing of learning resources by institutions and commercial publishers is becoming more common as a way of improving quality, achieving cost effectiveness, and opening up new markets. Chambers outlines how the British Open University is pursuing this, and the effects on internal planning and restructuring of materials.

#### **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.

**Lockwood, Fred**

1992, *Activities in Self-Instructional Texts*, London, Kogan Page.

A practical guide to the critical issues to consider when writing self-instructional text which uses many examples of 'activities' from a wide variety of situations and subjects. It comprises five main sections: how do activities work (e.g. as a tutorial in print, a reflective action guide, or for self-dialogue); what is the research evidence to back up the design of activities; what assumptions do writers make and what expectations do they have of students; what do learners think about the benefits and costs of activities; and how do all these issues come together in course design. Lockwood practises what he preaches in the way in which the book is written, with numerous activities for the reader in between the text.

**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.

**Rowntree, Derek**

1992, *Exploring Open and Distance Learning*, London: Kogan Page.

An easy to read 'how-to' book written for teachers, trainers and managers in education, industry and public sector organisations on improving practice and professional competence as teachers. In addition to good chapters on media choice and use, and the role of the 'learning package', Rowntree covers issues of openness, who learners are, fostering their autonomy and ways of providing support, costs and costing methods, evaluation, and management of change.

**Thorpe, Mary**

1988, *Evaluating Open and Distance Learning*, London, Longman.

One of the major texts on evaluation for practitioners of distance and flexible learning, this book includes a useful chapter on strategies for piloting course materials (meaning mainly print) during the stages of development/production and

delivery, including peer and teacher feedback.

### **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.

### **Wood, H.**

1995, 'Designing study materials for distance students', *Occasional Papers in Open and Distance Learning*, Charles Sturt University, Vol. 17, May.

<http://www.csu.edu.au/division/OLI/oli-rd/occpap17/design.htm>. Available in hard copy from CSU or online.

An evaluation of good practice in designing and teaching science subjects at a distance, especially one which would normally involve laboratory work. The subject evaluated was an introductory biology unit comprising a print and video package built around a commercial text.