Book Reviews

Reviewed by Stephen G. Taylor

The beginner in any field is faced with a number of problems, any of which may be overwhelming enough to discourage a person from continuing. This is certainly true of the use of computers in education. An individual moving into the field of educational technology must rapidly acquire knowledge about computer systems, while designing instruction and developing materials in this relatively new medium of instruction. There have been few guideposts to lead the newcomer. Dean and Whitlock attempted to provide some of these in their first edition of the book in 1983, by bringing together the two areas of educational technology and computing. While their main audience was the novice, they also intended the work as a reference for practitioners, managers and computer personnel. The second edition provides this service to the same audience with a somewhat updated version of the content.

The book is divided into three parts. The first section provides the reader with a mini-course on instructional design. Starting with the development of a rationale for a training programme. A discussion of objectives and criterion testing in Chapter One reminds the reader of these important steps in instructional planning. Chapter Two, Drawing up the Learning Plan, presents in a short space some valuable points to be considered in dividing content into modules, and selecting presentation methods. This chapter also introduces the reader to the influences that the trainees bring into the instructional system. The next chapter recommends the development of a rule set to define the subject matter. This is a list of the points that must be included in the lesson. Building such a list helps to define the content area, and serves as a framework

around which to write the lesson and order the presentation of information to the learner, Further, the rule set provides a basis of discussion and agreement with the author's client, The final two chapters of the instructional design section use the programmed instruction term frame to describe the incremental steps within an instructional module. Although the use of this term seems a little out of fashion, the advice offered and forms suggested can get the newcomer truly started in the design process. At the end of the fourth chapter the reader finds the first of several checklists. This first one is for course design and provides seventeen points that should be included in an adequate training system.

Part Two of the text features an introduction to computing hardware. While this section is obviously intended for a new arrival in the field of computers, it may also be useful to the experienced reader. Like the travel guide for a familiar city, it brings a lot of information together in one place and makes it accessible. This section also provides definitions for many of the multitude of acronyms and terms that baffle the non-computer literate person. One whole chapter is dedicated to the man-machine interface, while another is involved with explaining the different types of software. This section ends with another useful checklist of about 35 major hardware aspects that need to The first two sections of the bookconsume about half of the pages and thus the second half gets to the issues surrounding its major purpose. The content here is divided over nine chapters. Initially, the computer is put into the perspective of training technology in general. The authors express their concerns that computers are often used because of their novelty to do things that are best done by other media. They use a chapter to describe the costs and benefits of computer based training and these are summarized nicely in a table at the end of chapter 12. Planning and management are the themes of the thirteenth chapter. Here the issues of using readily available software versus writing new programming are discussed. There is an introduction to authoring systems as opposed to programming languages, and a small amount of information about facilities planning. The chapter ends with another checklist.

Chapter 14 "Aspects of Screen Design" is a new chapter. While the experienced computer course developer may have developed a personal style for producing the screen format and appearance, the novice can easily become lost and spend a lot of time to produce a visually poor product. General rules are proposed in this section to deal with text and graphic presentations, colour use, and use of windows, while reinforcing the need for consistency of format throughout theprogramme and theabsenceofclutter on the screen. these rules are based on the personal experiences of the authors. The chapter is illustrated with photgraphs of typical screens and, although they are clear, they are rather difficult to look at because of the pixel appearance on the screen.

The use of on-screen questions, response analysis and replies is the subject of the fifteenth chapter. This is a complex issue and is only given a brief coverage in the book. What had been contained within a section of a chapter in the first edition has been raised to chapter status in the second. Perhaps there

is not much new to add at this time, but it seems that there should be more. Of the remaining four chapters of the book, two focus on authoring systems. Chapter sixteen is very much like its predecessor in the earlier edition. It introduces HAL, Hypothetical Authoring Language, as a model of the authors' ideal of such a system. This reader feels that chapter sixteen might have spent more time providing a scheme for the evaluation of authoring software with an eye to helping an individual choose an appropriate way to build instructional programmes. Chapter nineteen is a survey of 21 authoring languages. It seems strangely out of place, and while the information is useful, it might have been relegated to an appendix.

Two sections, each contained in a chapter, are given short shrift in this book. Testing and evaluation of the product of the development process are important aspects in an educational technology approach to teaching. There is a wealth of information on this topic and yet only eight pages are dedicated to covering it here, with very little new information 2nd edition. Likewise, the use of the computer for the management of the instructional process is not well covered. The major uses for this purpose are mentioned in chapter eighteen but the reader, even the beginner, will most likely feel the need for further elaboration. The book ends with a brief summary that contains a final checklist and a list of twenty DO and DON'T statements. Again these are very useful for both beginner and experienced practitioner. There is an extensive glossary with over 200 entries, along with an appropriate index.

The book purports to be an handbook on computer based training, it is unfortunate that the half of the book dedicated to this is weaker than the sections on instructional design and computer hardware. Most engineering handbooks have a format of tables, diagrams, and graphs that make access to details easy for the practitioner. Our field is yet to be developed to that degree but the experienced user of this book would probably like to have much of the information more readily available. A gesture in this direction is the inclusion of the checklists scattered through the book. These could be made easier to find through a listing. Another aspect of the book that the North American reader may find difficult is that it is clearly oriented to the United Kingdom. This weakness particularly applies to discussions about costs and the addresses for software distributers. It is also unfortunate that the authors did not include any material on the developments in artificial intelligence, expert systems or interactive video presentations in this edition.

Over all, this book could be of potential value to several kinds of users. the book is written for the newcomer and can serve this audience well. Even its weaknesses can be overlooked from this perspective. The book could be used as a student text or reference for a course in developing instructional computing systems. An instructor planning such a course could also find value in this text as quite a complete framework for course and lesson development. While the first edition of the book probably served the experienced practitioner as a desk reference, this reader did not find enough new material to justify replacing the previous edition. The book may also be of value to individuals on

the periphery of computer assisted learning, such as computer operating personnel and managers of departments in business and industry becoming involved in computer assisted instruction.

REVIEWER

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Interactive Media: Working Methods and Practical Applications (1st Edition) by Diana Laurillard, England: Ellis Horwood Limited, 1987. ISBN O-7458-0011-4   ($68.95)

Reviewed by Penelope Anne Nicholson

The question of whether to integrate interactive media into education and training has been the center of much controversy. Issues such as the costs involved, manpower and resources needed, and the fear of the complexity of hardware and software have caused confusion and apprehension in an area where clear and accurate answers are needed. For those wishing a comprehensive insight into interactive media this book is a valuable resource. Its potential readership is vast due to the variety and levels of complexity of information presented.

The information presented throughout this book is representative of developments in interactive media for education and training today Since the book was published in 1987, however, advances such as bard code access in videodisc, and compact-disc interactive (CD-I) are not discussed. Readers looking for a good background and valuable information in interactive media should not dismiss this book because it is three years old, but readers looking for only the latest advances in interactive media are advised to look elsewhere.

Through 15 chapters the reader is exposed to the work of a variety of authors who clearly present their experiences, recommendations, cautions, and opinions concerning the integration of interactive media into the classroom and workplace. All chapters are divided into subsections which are clearly marked in both the table of contents and in the chapters. Helpful illustrations are provided throughout the book, and a final section presents a descriptive background of each contributor. References are provided at the end of each chapter as well as at the end of the book. Technical information is provided and numerous examples of current videodiscs are discussed.

Some of the problem-solving discs which are discussed through their planning and production stages are the 'CALCHEM' disc (chapter   'The