society – are infinitely more convoluted then the "how?" question – their implementation in programs. While this is a handbook, one would wish to have seen rather more emphasis placed on the social values held to be inherent in the variety of adult education thrusts described.

Almost all of the articles which comprise this volume have been translated into English, a fact which imposes a special burden on the editors. Some restructuring of occasional awkward passages would have improved the flow of this book.

Nonetheless, it is a practical and useful book. Moreover – and gratifying, it is an *interesting* volume with which all professional adult educations should be familiar.

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Christopher Knapper, *Evaluating Instructional Technology.* New York: Halsted Press, a division of John Wiley & Sons Inc., 1980. 163 pp.

Evaluating Instructional Technology is an informal, readable overview of several aspects of both the instructional and the evaluation processes. Dr. Knapper summarizes some of the basic principles of instructional design and briefly describes the common types of instructional technology (e.g., distance education, computer assisted instruction). The evaluation process is discussed, in general, with an emphasis on the evaluation of student learning and the steps that should precede this, such as the writing of behavioral objectives. In a chapter titled, somewhat inappropriately, "Criteria for Evaluation," Dr. Knapper provides an introduction to various methodologies (including three research designs) and the measurement considerations of reliability, validity, and direct versus indirect assessment of learning and attitudes.

Program evaluation is also treated briefly, including such topics as the purpose of the evaluation, methodology, and techniques for collection information. Some of the characteristics of program evaluation which are distinct from the evaluation of a particular course or technique of instruction are pointed out.

Four case studies, including, for each, the focus of the study, method, results, and critique, are used to illustrate the evaluation process in a variety of settings. More generally, evaluation studies of instructional technology are classified into four types and reviewed (descriptive studies, method comparisons, experimental studies, and comprehensive program evaluations). Although some attempt is made to draw conclusions about the effectiveness of instructional technologies, the emphasis in this chapter is placed on the methodologies used and critiques of research on instructional techniques.

In the final chapter, Dr. Knapper reviews the two major issues arising from evaluation studies in instructional technology: that of matching the technique

or medium to the subject matter and the type of learning, and that of matching a particular strategy to an individual student's learning style. Questions to be considered in future research are also presented.

The annotated bibliography provides a valuable resource for the reader who is being introduced to the areas of systematic instruction and evaluation. The selected references provide a comprehensive survey of the field.

In the preface, the general aim of *Evaluating Instructional Technology* is stated as being, "to provide a primer on evaluation for those involved in instructional technology, or for those who wish to be in a position to assess the evidence for the effectiveness of such instructional systems." Dr. Knapper admits that the book is a "personal view and review of the evaluation process." In fact, the strength of the book lies in its readability and its comprehensive coverage of the major issues in the evaluation of instructional technology. It is, however, these strengths which also contribute to the major limitations of the book.

In the attempt to provide a readable treatment of technical issues in the evaluation process, some concepts are simplified to the point of misrepresentation and confusion. To define, for example, criterion referenced learning as "a piece of educational jargon that merely refers to an ability to measure up to the requirements of the job in question" may not actually be inaccurate, but certainly gives the naive reader a misleading impression of this measurement approach. A more serious example of this type of simplification occurs in the area of validity and reliability. By circumventing the technical meaning of these concepts, the author manages to give the impression that the reliability and validity of an instrument is directly related to the type of test (open ended versus forced choice) being used. Although such a relationship obviously does exist, it is again misleading to actually define these measurement concepts in such terms.

The comprehensive coverage provided by the book leads to similar difficulties. The briefness of the overviews often results in a product which is not of interest to a reader who is already familiar with evaluation and which is not useful to a reader with no previous knowledge of the area. The prime examples of this fault are the fifteen page treatment of program evaluation, and the three page case studies. The author could have more effectively served the needs of the reader in each of these areas by presenting a more limited aspect in more depth.

In addition to these limitations, some of the author's personal views which affect the content of the book should be mentioned. First, and most noticeable to the evaluation specialist, is the mix of evaluation and research. Research is commonly separated from evaluation in terms of generalizability, i.e., an evaluation yields a judgment of the quality of a specific process or product; research yields an outcome which is hoped to be generalizable to similar samples in similar situations. Dr. Knapper includes the experimental, quasi-experimental and correlational research designs as evaluation methodologies, and discusses the generalizability of evaluation studies. Admittedly, the research-evaluation distinction is not always clear cut; however in a book of this scope, it would have been more

practical to adhere to the accepted distinction between the two areas. A second personal view which tends to slant the description of the evaluation process in a somewhat unusual fashion is the emphasis on student learning as a criterion for the evaluation of instruction. The author does demonstrate an awareness of the issues involved, such as the influence of other variables on student learning; however, again, the naive reader might be led to believe that student learning is the major or even the sole criterion of instructional effectiveness.

Overall, Dr. Knapper has provided a clear, well-written overview of the area of instructional evaluation, with a focus on the evaluation of instructional technology. However, the reader should be aware that a simplification of a large and complex area may yield misleading impressions. Also, the technique of relying on one's personal views does result in a pleasantly informal treatment of the issues involved, but may not provide the reader with the commonly accepted definitions and perspectives.

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Leslie, Peter M. Les universités canadiennes d'aujourd'hui et de demain, Association of Universities and Colleges of Canada, Policy Studies No. 3, 1980, 446 p.

Les problèmes que vivent présentement les universités canadiennes se situent selon ce rapport aux niveaux du vieillissement du personnel enseignant, des clientèles en décroissance, de la perte de contrôle grandissante sur les programmes d'étude au profit d'une ingérence gouvernementale, de la survivance et du développement des études graduées, du manque de définition des fonctions recherche, et finalement des politiques incohérentes et souvent arbitraires de financement. Le tableau que brosse l'auteur est donc celui d'un réseau relativement jeune et immature mais déjà aux prises avec des problèmes de renouvellement et de vieillissement. La participation double des gouvernements provinciaux et fédéral ne fait qu'ajouter à la complexité des problèmes. Le premier niveau de gouvernement se veut entièrement responsable de ses institutions universitaires sans cependant se préoccuper de la fonction recherche, à quelques exceptions près. Le second niveau se présente comme le bienfaiteur désintéressé tout en espérant influencer si ce n'est l'enseignement tout au moins les directions de la recherche. Les politiques récentes fédérales au chapître des subventions de recherche mettent l'accent sur les "subventions thématiques" qui auront comme résultat d'orienter significativement les axes de recherche au Canada. Au surplus, les premières observations sur l'allocation des ressources fédérales de financement de la recherche démontrent que les programmes traditionnels visant à financer les activités de recherche fondamentales pourraient éponger les coûts de développement de ces nouveaux programmes. La recherche fondamentale déjà en situation de sous-développement au Canada pourrait en souffrir profondément.