

ing one feel the unseen presence of Humpty Dumpty. The discussion on page 6 adduces the properties of stable closed-loop systems to open library systems. On page 8 we are asked to believe that the inputs to a library system are its goals. Elsewhere we are told that a library sets its goals, and given a flowchart implying that the setting of goals is a part of action research.

Although Swisher and McClure don't make common mistakes in their discussion of statistical inference, there is still something to be desired. Most library researchers today will be presented with SPSS output or something like it. The authors could have shown us what that looks like, and have illustrated it with a reasonable set of ample data (perhaps fifty or one hundred data elements.) If their mission is to overcome the fright librarians may feel upon seeing this stuff, the book should display one or two tame examples, to ease that fright.

Rather earlier, on page 16 they cite a hypothetical case in which a study establishes "a statistically significant relationship . . . between women undergraduates and skills taught." I have no idea how the rows and columns of the cross tabulation would be labeled, and I submit that the reader won't either. If the authors do, they should have told us. If they don't, then how can we be confident of their seriousness?

Furthermore, a key point about the "use of statistics" is not brought out. The whole idea of confidence intervals is designed to prevent premature rejection of some natural hypothesis (usually called the null hypothesis, H_0) in favor of an alternative that may appear better through the action of chance alone. In very rough language, the 95 percent confidence interval is designed to make the odds against this particular mistake 19:1. HOWEVER! In action research we are usually not "testing a new fertilizer" (perhaps that is more the domain of the reader of type III research)—we are trying to "learn something new." Most statistical packages build in the null hypothesis that variables are unrelated. That is absurd. What we usually want to know is: "How much are

they related?" Is the relation of managerial or economic significance?

If I am trying to estimate whether a particular library is circulating as many books as it ought to, I have some idea that this is related to the number of students enrolled in the departments that it serves. To see whether it is "off the line" I assemble the relevant data and draw some kind of plot. If I hand the problem to a statistician she may do a regression analysis, and may tell me that the R-squared value is large, and that I can have high confidence in the regression. What that means is that the (absurd!!) null hypothesis built into computer program (namely that the two variables have nothing to do with each other) can be rejected. It does not mean that every branch ought to lie on the curve. (This can be dealt with by calculating the band of error, which some programs do, but my point is that we are not interested in preserving the null hypothesis here—it is a straw woman.)

To sum up, the authors know a great deal about research, and about statistics, but they have not shared the most important parts of that knowledge with their readers. The project planning chart (page 29) is a useful example for someone who has not done project research before. Chapter 4, on surveys and questionnaires, contains some good tips and pointers.

Taken together, the book cannot be recommended. It is not informed by a single critical intelligence, and in places it looks as if the authors shared a single sentence (many run to sixty and seventy words) making the same point twice. The imprecision in the treatment of ideas will disturb experienced managers and experienced researchers alike. It would make a poor introduction to either subject for those without experience. In spite of some bright spots, this is rather more a book about the literature than about research. The important gap is still unfilled.—Paul B. Kantor, *Tantalus Inc., Cleveland, Ohio.*

Evaluation of Reference Services. Ed. by Bill Katz and Ruth A. Fraley. New York: Haworth, 1984. 334p. \$29.95. LC 84-12898. ISBN 0-86656-377-6. (This work

has also been published as *The Reference Librarian*, no. 11, Fall/Winter 1984).

"At present, it is still a rare library that has an accurate statistical description of its reference department's quantitative input, throughput, or output, let alone its qualitative output." "Unfortunately, librarians frequently have little knowledge as to the overall quality of reference services provided, nor do they engage in an ongoing program of assessment, training, and program development vis a vis reference services." ". . . almost all studies of reference service (as of other areas of library service), have refrained from dealing with the benefits of reference service." These three representative statements from the introductory sections of three of the twenty-five articles in this collection focusing on the why and how of evaluating reference service show that, while much has been written, relatively little has been achieved in this area.

Editor Katz introduces the topic by stating the case for evaluating reference services. Collectively the rest of the essays present a very fragmented view; at least some of these fragments could have been pieced together had Katz attempted a synthetic concluding essay. As it is, various authors propose various techniques, some for evaluating reference services, some for evaluating reference librarians, some for evaluating reference tools. Most are mired in the tradition of the relatively young literature evaluation (traced here in Alvin Schrader's citation study of Terrence Crowley's and Thomas Childers' unobtrusive studies of the accuracy of reference service in public libraries in the late 1960s) and discuss only traditional reference service based on the use of print reference tools. Only one article seriously considers online references services; however it also honors the tradition by discussing online services as something wholly apart from traditional services.

Several of the articles describe the way reference service is evaluated in their authors' reference departments—examples of the notorious "how-I-run-my-library-good" genre. This is not to say that these articles are bad; however, they ask the reader to accept their authors' assump-

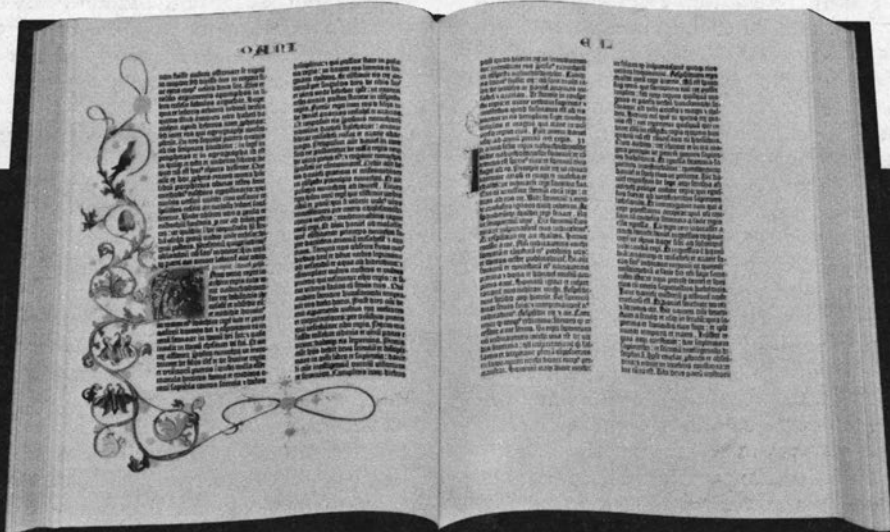
tions about what constitutes good reference service or good management. For example, Margaret A. Joseph's "Analyzing Success in Meeting Reference Department Management Objectives Using a Computerized Statistical Package" simply assumes the value of an MBO system in an academic library reference department. The same is true of Mignon S. Adams and Blenche Judd's "Evaluating Reference Librarians: Using Goal Analysis as a First Step." Unless one accepts MBO as a valid measure of performance, these articles have very limited value.

A lack of clarity about values lies at the root of the evaluation problems. It seems that every librarian intuitively knows what constitutes good reference service or a good reference librarian, but none of these authors has been able to articulate that in a meaningful statement with which even a slim majority of the other authors (as well of their colleagues in the field throughout the profession) can agree. Some equate quality to speed of service. Others tout accuracy of factual information and others the amount of searching the librarian performs for the patrons as the measures of quality. A number of the articles mention, but none attempts to apply, the ALA Reference and Adult Services Division's "A Commitment to Information Services: Developmental Guidelines." As the name implies, these are guidelines, many hortatory in nature, not definitive standards by which to measure and evaluate reference service.

Evaluation implies measurement as a first step. However one cannot discern in these papers any consensus on what ought to be measured, much less on how to measure. There is also disagreement about who should judge a library's reference service—that library's reference staff, reference staff from another library, or the patrons who receive the service. Because it is the most "real," the last choice has the greatest appeal, but it is flawed by the consideration that few patrons operate from a firm enough bibliographic knowledge base to judge reference services well.

A concluding essay could not possibly have drawn together and synthesized all of the divergent approaches to a very

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broad topic. Nevertheless, it could have outlined the agenda the profession must follow to evaluate reference services in public and academic libraries. The profession must define what it means by reference services (including online services); it must establish standards for these services; it must devise techniques for measuring services against these standards. It must integrate into a cumulative judgment the individual judgments of the various factors. F. W. Lancaster identifies in his article as things that can affect the quality of reference service. These factors include the conduciveness of the environment for information seeking, library policies, the reference collection, library staff, question complexity, the abilities of the user, and the existence of referral agencies.

Thus far attempts to evaluate reference service fall well short of this ambitious mark. The best hope is offered by efforts such as the one Marjorie Murfin and Charles Bunge describe in which both librarians and patrons in a number of libraries complete questionnaires describing and evaluating particular reference encounters. All of this data is then analyzed by computer. Although they caution that their results are preliminary and subject to revision after further analysis, one can conclude that good reference service is labor intensive in that it takes time and that it is more likely to be judged effective if the librarian searches for the information requested rather than suggests a strategy through which it might be found. Work must continue on this and other techniques until collectively they reach a point at which someone can synthesize them into the best possible way to measure and evaluate reference.

Several articles explain how to evaluate databases and reference works and one article discusses reference collection policies. Because these articles fail to consider the impact on library patrons, they are peripheral to the volume's central concern of evaluating reference service.

Collectively these articles capture the state of the art of evaluating reference—not only the techniques but also the beliefs

the profession holds about evaluation. Thus far, belief in evaluation's value far outweighs the results derived from evaluation experiments. This volume states the problems; it does not offer solutions. However, because methods of evaluating reference service must be found and because this overview comes at a time of renewed interest in the evaluation issue, it ought to encourage both theoreticians and practitioners to work on the agenda outlined above.—James R. Rettig, *University Library, University of Illinois at Chicago*.

Campbell, Duncan D. *The New Majority: Adult Learners in the University*. Edmonton, Alberta, Can.: Univ. of Alberta Pr., 1984. 146p. \$11.50. LC 84-091063-0 ISBN 0-88864-097-8.

Although this book has a Canadian focus, it deals with an important issue of higher education that should be of equal interest in the United States. Campbell, a professor of continuing education and higher education at the University of Alberta, argues the importance of institutions coming to terms with the educational needs of working adults beyond traditional college age. Programs serving this group have frequently been outside the mainstream of normal University priorities in both Canada and the United States; but with changing demographic and social patterns, a group once seen as peripheral to the central mission and goals of higher education is now an increasingly important segment of its population. Campbell believes that universities must face this fact and act upon it if they are to remain dominant in the education field. The points raised in this short book are good ones, but one wonders if this was the best means for transmitting them. There is a good deal of repetition between sections and maybe a long, well-written article in a prominent journal would have presented the message more concisely to a broader audience.

The first section provides an historical retrospective on continuing education in Canada with reference to other countries, especially the U.S. and the United Kingdom. Later sections deal with the rhetoric,