The questionnaires were then distributed to children and adults at three public libraries in southeastern Michigan. The participants formulated meanings for the listed subject headings, designating on a scale of 1 to 7 their certainty of each meaning. The same three sets of questionnaires were also distributed to professional reference and technical services librarians around the country. The responses were compared to the expert's meanings and each judged correct or incorrect. Specific codes identifying differences in syntax, language, and leaving out or reading in concepts were also assigned to describe why the meaning was correct or incorrect.

Percentage of correct meanings by respondent group were as follows: children, 32%; adults, 40%; reference librarians, 53%; and technical services librarians, 56%. Percentages were a little lower for headings in the standardized order than in the original order of subdivisions. Overall, the lowest percentages came from children, but there were exceptions to this pattern. In one example, children did better than technical services librarians! All were less certain of their incorrect meanings than their correct meanings; however, none formulated meanings that favored a specific incorrect meaning code.

The narrowest research question was answered clearly: "Statistical and failure analyses failed to demonstrate that subdivision order made a difference in terms of understanding subject headings" (p. xviii). LC should standardize the order of subdivisions to simplify cataloging and save money. Staff would no longer spend time determining the order of subject subdivisions and could introduce computerbased techniques that would reduce the errors that occur in subject headings due to subdivision order (Drabenstott and Vizine-Goetz 1994, 113–20).

Broad implications for further study are presented. Various groups, including children, reference librarians, and subject experts should be involved in establishing new subject headings. Future studies could examine the characteristics that are likely to identify a difficult subject heading and the extent to which context changes the meaning of subject head-

ings. End-user understanding of Sears Subject Headings, Medical Subject Headings, Yahoo! subject headings, and comparable systems should be investigated, adopting the codes used in this study for comparisons between different systems. Above all, this study confirms an enduring commitment to LCSH. It demonstrates that scientific analysis can improve its development and use.—J. Bradford Young (jbyoung@pobox.upenn.edu), Otto E. Albrecht Music Library, University of Pennsylvania, Philadelphia

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Improving Online Public Access Catalogs. Martha M. Yee and Sara Shatford Layne. Chicago: American Library Association, 1998. 220p. \$48 (ISBN 0-8389-0730-X). LC 98-6217.

In Improving Online Public Access Catalogs, Yee and Layne focus on specific improvements in systems design for online catalogs. Both authors, Yee in particular, are known for their expertise in cataloging and its impact on information retrieval. After an introductory discussion of indexing and display options for current online catalogs, the authors examine and discuss how system design affects retrieval, offering suggestions on how to improve design to better assist all

catalog users. They emphasize the public access component of online catalogs and do not discuss integrated library systems in detail. They discuss the characteristics of both novice and experienced searchers in relation to system design and the availability of search options. Yee and Layne recommend using default searches, with which they believe most users are familiar. Backup search strategies are suggested for use when default searches fail.

The text is divided into three main sections on objectives of the catalog and interfaces, authors and works, and subjects. Three appendixes are included for further reference: "User Studies Consulted," "Cataloging Classics for the Inquiring System Designer," and "Searching Catalogs on the Internet." An index is also included for easy reference to names and terminology.

This book is clearly intended for library professionals, yet part I is too basic in much of its explanation of USMARC (MAchine Readable Cataloging) records. This type of explanation is more appropriate for library school students; it would be expected that those with the responsibility to implement or upgrade a library's online catalog would have basic knowledge of bibliographic and authority records. Yee and Layne are inconsistent in their explanation of terminology. For example, they include a detailed explanation of authority records and the fields they contain. However, when the Anglo-American Cataloguing Rules, 2d ed., 1988 revision is first cited (p. 118), no explanation or description is provided. In contrast to part I, "Objectives, Interfaces, and Building Blocks," parts II and III, "Demonstration of Relationships-Authors and Works" and "Demonstration of Relationships—Subjects" are more interesting and provide more substance.

Sometimes the authors provide contradictory information. In their introduction to authority records (pp. 25-26), Yee and Layne suggest making available to users the 667 note field, which provides further information about the person represented in the authority record. This raises the question of how such information would be displayed. The authors note in previous chapters that users lack knowledge of effective searching techniques and are often unable to interpret search results. If this is the case, it seems contradictory for them to advocate displaying the 667 field. Many users have difficulty identifying the information they need in bibliographic records, and they often have problems using classification systems or locating materials in a library. Only sophisticated users would be able to recognize and appreciate information in a 667 note.

Yee and Layne provide an in-depth discussion of the role of authority control and the relationship between authority and bibliographic records. While this is helpful, it might have been strengthened with a discussion of the problems of a catalog that lacks authority control because this is often a concern of libraries seeking to improve system design.

In their discussion of system design and indexing, the authors compare and contrast the benefits and drawbacks of card and online catalogs. They outline the capabilities lost plus new capabilities that have been gained, noting how users had fewer and less sophisticated information-seeking strategies when using the card catalog. This discussion is interesting and helps to provide a historical perspective for search strategies and results.

The text is easy to read and the layout is well-organized. Yee and Layne use many excellent examples, which include accompanying explanations, to illustrate the text. The authors' thorough research is evident. They cite numerous user studies that support their arguments for default searching and for improvements in system design. Their book is timely and very much needed as libraries strive to serve both local and remote users. The authors conclude by reasserting their argument for improving the design of online catalogs: "The records currently available for use in OPACs are rich with content and structure that have not yet been tapped by means of effective system design" (p. 206).—Mary Beth Weber (mbfecko@rci.rutgers.edu) Rutgers University Libraries, New Brunswick, New Jersey