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Evaluation of the Collection

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EVERY LIBRARY exists chiefly to serve the needs of its own community of users. It follows, then, that any overall evaluation of a library ought to be based chiefly on how well it does, in fact, serve those needs.

A comprehensive evaluation of one library or of similar components in several libraries is necessarily complex and is usually complicated. It requires. considerable professional expertise and judgment and a goodly amount of tact; normally it is broken down into a number of separate evaluations of the individual components of the library or libraries being surveyed. More often, perhaps, some one part of a library may be evaluated by itself on an ad hoc basis; and the one part that seems to be most commonly evaluated is the library's collection of books and periodicals, conceivably on the assumption that the collection is the best tangible evidence of what goes on behind the scenes in a library and of what a library is all about out front. In addition, the collection lends itself more readily to physical observation, systematic checking, and statistical manipulation, if not so readily to a judgment of its quality.

It is generally agreed that both the quantity and the quality of a library's collection depend almost entirely upon the library's acquisition program, including its acquisition policy, its acquisition procedures, and, of most importance, its selection methods. So an evaluation of a library's collection is, in effect, an evaluation of its selection methods as well, although it may not always be possible (or even worthwhile) to pinpoint the precise cause (a specific selection or acquisition mechanism) and its effect (a definite resultant change in the quality of the collection) using the methods customarily employed to evaluate a library's collection.

It is now also generally agreed that any evaluation of a library's collection must take into account the library's stated goals, objectives,

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mission, or however else it defines its reason for being, in the context, when appropriate, of the goals, objectives, or mission of a parent organization or even a system to which the library may belong. Even more to the point, a standardized test is now available which may be used to evaluate a library's capability of delivering a required document from its own, or from any other, collection, a rather natural development brought about largely by the growth of library networks, systems, resource centers, and other interlibrary cooperative projects as well as by the growing acceptance of the fact that no library, however resolute, wealthy, or long established, can have everything that anyone could possibly want.

Technical libraries particularly have been extensively and intensively studied in recent years especially to develop criteria to measure their "effectiveness" in given situations. While a technical library's collection of books, journals, and other documents is one of the several important features considered in these studies, most attention seems to be paid to the way in which the materials are analyzed and indexed for efficient information retrieval, thus this large and somewhat specialized literature will not be covered in this discussion. The literature on evaluating just the collection and the antecedent selection element in the acquisition process is sufficiently large as it is, and deals mostly with academic libraries, possibly because of the prevalence and pressure of accreditation standards for these institutions and of the importance attached to academic standing among these institutions.

METHODS OF EVALUATING COLLECTIONS

Over the years several quite different techniques have been developed to evaluate library collections for a number of purposes. They have been applied in varying configurations, sometimes independently but more often in conjunction with one or more other techniques, and with varying degrees of success depending on how well the chosen method could really get at the intended purpose of the evaluation. For example, the quantity of a collection—its numerical size—has always been relatively easy to ascertain assuming accuracy, objectivity, and the use of standard units of measurement on the part of the enumerator. The quality of a collection—its relative excellence or its value or worth in the particular situation—has always been more difficult to judge objectively.

The large and, in part, repetitious literature (see General Background Reading list) identifies five reasonably distinct methods for

evaluating library collections plus one or two others that do not quite fit into any of the five: (1) compiling statistics on holdings, use, expenditures; (2) checking lists, catalogs, bibliographies; (3) obtaining opinions from regular users; (4) examining the collection directly; and (5) applying standards (using various of the foregoing methods), plus testing the library's document delivery capability, and noting the relative use of several libraries by a particular group. The latter two in number 5 do take more into consideration than just the one library's collection, but in each case the adequacy of the collection being studied determines what, if any, next steps to take to satisfy the library's users.

COMPILING STATISTICS

The main advantages of this method are that statistics are easily available, easily understood, and easy to compare; the main disadvantages are lack of standard definitions of units, possible lack of distinction between titles and volumes, difficulty in counting nonprint material, and possible inaccuracy or inconsistency of published data.

Perhaps the most common objection to statistics is that in themselves they do not, indeed cannot, measure quality.[1] But, of course, they may not necessarily be expected to; simple numbers may be all that are wanted or needed for the purpose in mind. Another objection is that statistics are not likely to be related significantly to the library's community or to the library's goals and objectives; but neither are some of the other methods frequently used to evaluate collections. Part of the problem here is that neither the library's community nor the library's goals can be described easily in terms that can be readily evaluated objectively. Nevertheless, compiling statistics on libraries has been a diversion of librarians for many years.[2] Statistics can be compiled on any of the following.

Gross Size—is a straight count of total volumes in the library, of only reference books, of periodicals currently received, or of nonprint material; it may be broken down by class and may be reported per capita. It is generally agreed that size does mean "something" and that there is a positive correlation between the size of a library and, for example, the excellence of the academic institution to which the library belongs measured by composite scores of academic ratings (high ranking colleges need a minimum of 50,000 volumes),[3] by number and variety of graduate degrees granted (high level diversified doctoral work requires a minimum of 1,500,000 volumes),[4] or by membership in prestigious associations.[5] Specialized technical institutions are recognized exceptions to the general rule in every case.

It is also felt that there is a definite relationship between the size of a given collection and its ability to respond to the needs of its clientele expressed in terms of a probability,[6] and that the probability will be even greater if the collection has been intelligently selected by competent professional librarians.[7]

Since there seems to be a high positive correlation between quality and quantity, one writer said, "quality becomes of serious concern only in the small library"[8] where, consequently, competent professional librarians would seem to be most needed but where, unfortunately, they seem to be most lacking, except, of course, in special libraries.

Another writer feels that since all resources do not have identical utility and information, the probability of finding a useful resource is dependent on the nature of the request and the nature of the collection rather than on the size of the collection.[9] An example might be the usual special library collection which is very small in size, but is exhaustive in its specific subject coverage and is deliberately kept up to date by rigorous weeding. A collection of 5,000 books in such a library could be more useful than 10,000 books on the same subject in some other kind of library.[10] This does suggest that professional development, maintenance, and exploitation of a collection, taken together, are more important than size.

Volumes Added Per Year—is a straight count or by class or per capita. This figure is considered to be more significant than the growth rate and is used in an evaluation along with the gross size.[11] "The real test is the number of relevant volumes available to the visitor on each topic in each library."[12]

Formulae—are based on an acceptable core plus volumes per student, per faculty, per undergraduate field, per graduate field (Clapp-Jordan);[13] based on total volumes, volumes added annually, number of current periodicals (Cartter);[14] based on resources, population, circulation, research capability (Beasley).[8]

The Clapp-Jordan formulae (for books, for periodicals, for government documents) were proposed in 1965[13] but were not studied empirically until 1972.[15] Statistical regression analysis was used, and it was found that for university research libraries the Clapp-Jordan books formula may be considered a conservative guide to minimum-sized adequate collections.[16] Another result of this same study is the impression "that for some academic institutions [e.g., Harvard, Yale, Illinois, Duke] the library is more than just a resource for teaching and research but is something of an end in itself" and that "some univer-

sities have been prepared to develop national or regional libraries while others have been more content to restrict their ambitions to the needs of teaching and research on their campuses."[17] In a comment on this study another writer discusses his own use of the Clapp-Jordan formulae and suggests that a more viable formula for determining an adequate collection for normal academic teaching and research should take into account (1) the level of service desired in terms of immediate satisfaction of demand for volumes (e.g., 95 percent); (2) the rate of obsolescence of volumes; (3) the publication rate of relevant material; and (4) the need for multiple copies, and he offers ways of getting the necessary information to plug into the formula.[18]

One shortcoming of the Clapp-Jordan books formula has been pointed out earlier—it does not "reckon with the difference in book needs between, say, history and engineering; rather it assumes a universe of subjects will be covered by the academic community and thus the differences among subjects even out as do the differences in use of the library by individuals."[19] A variation of the Clapp-Jordan formula was used to estimate the new size of a book collection after expansion of the college library to a university library.[20]

The Cartter "library resources index" was used in 1966 to correlate quality in graduate education and library resources. The institutions that are strong in all areas invariably have major national research libraries, and all the universities with overall faculty quality ratings of "strong" or "distinguished" scored relatively high on the library resources index; exceptions were noted (and explained) among institutions specializing in technology or in advanced work in a very limited number of areas, as in the case of gross size correlation mentioned earlier.[21]

The Beasley formula was proposed in 1968 for potential public library service: B = all resource material, perhaps weighted; P = population served; C = circulation; and S = study or research factor (which could be an arbitrary figure).

$$\text{Potential service} = \frac{B}{P} \times \sqrt{\frac{C}{P} \cdot S} \, .$$

No attempt was made to measure quality on the assumption that it is primarily a function of the type of personnel,[22] a point made earlier under gross size.

Comparisons—concern studies done at the same library at different times or with comparable libraries (in similar cities or institutions) at the same time. Other factors being equal, progress or improvement in

a library may be measured by the change in size of its total collection or of certain parts of it from one year (or one decade) to another. Relative sizes of comparable libraries indicate relative adequacies of their collections, other factors again being equal. One assumption in such comparisons is that libraries buy good and bad books in comparable proportions, an assumption valid enough for most purposes,[23] particularly if competent professional librarians make the selections.[24]

Subject Balance—studies give proportional analysis by class, by duplicates, by authors, by dates, and by relation to courses offered. Such analyses will reveal subject strengths (or perhaps biases on the part of the selectors) and possible mismatches with local needs, with "standard" (or opening-day) collections, with recommended percentages,[25] or with department teaching or requirements in educational institutions.[26]

Unfilled Requests—are kept for books, for journals, and for specific information. Of course, *filled* requests could be counted instead and a "performance index" (ratio of material used to material requested)[27] could be figured for each form of material, for each subject class, for each branch or public service department, or even for an SDI (Selective Dissemination of Information) program.[28] Hopefully, the unfilled requests would be fewer so it would be less trouble to record them as they are discovered and then to compare periodic totals at suitable intervals. It would have to be assumed that the lacking or missing books or journals should have been in the library in the first place, and that the unanswered questions came about because the probable resource books were not available rather than because a staff member blundered.

Interlibrary Loan Requests—are similar to unfilled requests. A recent study of interlibrary loans has pointed out that the larger libraries (100,000 volumes and over) not surprisingly *lent* over 90 percent of the total number of volumes that were lent during 1963-1964 (presumably the latest data available). And at the same time, they *borrowed* over 71 percent of all the volumes that were borrowed during that period.[29] Most of this (67 percent) was by academic libraries.

Of the 28.8 percent borrowed by small libraries, 17.9 percent was by special libraries. However, many special librarians, notably of larger technical libraries, have set in-house standards of performance for their collections: *maximum* limits, in effect, on the number of outside interlibrary loan requests they will make and *minimum* limits on the

numbers of loans that must come from their own collections. Thus, one librarian considers his library an "adequate literature resource needing only standard augmentation" if the collection "can supply 95 percent of the items required by the clientele." But "if the library must go outside for 15 percent or more of its loans, it should increase its acquisition rate."[30] Performance expectations of 90 to 95 percent seem to be fairly common among larger special libraries.

For comparison, a 1970 study of research articles published in 1966 and 1967 by faculty members from 87 departments of the University of Illinois and 83 departments of the University of Michigan found that each university library held 92.5 percent and 90.5 percent respectively of the works cited by their own faculty members.[31] An earlier study of 23 engineering dissertations completed between 1950 and 1954 at Columbia University found that 86 percent of the monographs cited and 78.5 percent of the serial titles cited were available in the Columbia University libraries.[32] Evidently no library, even a large one, is an island unto itself, a fact librarians have long since conceded but only recently began preparing for by constructing resources centers, networks, and systems.[33]

Optimum Size—is the size needed to satisfy x percent of the requests of the library's clientele.

How big does a library have to be to supply, for example, 95 percent of the items required by its users or to satisfy some other similar performance objective set by the library? Or, conversely, how comprehensive *is* the coverage of a given library collection? Briefly, the question can be answered as far as journal holdings are concerned from local journal-use statistics, provided that the library's interest is sufficiently specialized.

As one author puts it, "The extent of the coverage of relevant literature by a specialized information centre could be measured with accuracy, if one only knew what constituted comprehensive coverage." He further proposes a way of finding this out: "Perhaps from the system viewpoint, a method of estimation based on the Bradford-Zipf distribution, as suggested by Brookes . . . would be the best way of evaluating coverage."[34] In the article cited, Brookes concludes: "The application of the simple or the modified Bradford law to the documentation of a 'single' scientific or technical topic enables an estimate to be made, from a small count of the most reliable fraction of the data, of the number of journals that would be found in a 'complete' search of the documentation of the topic."[35] Theoretically, it may also be possible to apply a more modified technique to large general collec-

tions of documents in which many "single topics" are merged, but empirical data on general collections are very scarce.[36]

Two other authors use Bradford's law of dispersion to establish minimum holdings of medical journals in a "dynamic library collection" by determining the "nucleus of journals" from circulation figures, the "nucleus of best customers" (and their journal preferences), and combining them. The budget will determine the level of performance (measured by Bradford's "zones") possible in a given library.[37] In a later article, "Optimum $P\%$ Library of Scientific Periodicals,"[38] Brookes recommends that the value of P be determined by the "cut-off point at which it becomes more economic to borrow than to buy" the needed periodicals. P is the performance of the library's collection in producing wanted items.

On a somewhat less technical level, last circulation dates have been used to determine the optimal number of books for a library's core collection of most-likely-to-be-used books, set at any desired performance level.[39] The same technique also has been used specifically on fiction.[40]

Circulation—can be figured for the total, by adults, by children, by faculty, by students, by class, by purchase date of book, by date of use, by stock turnover per year, or per capita.

Gross circulation statistics are useful for comparisons, for example with figures for different years or for different libraries, and they tend to be used to demonstrate to higher authorities how well the library is serving its clientele. Public libraries are more likely to break the statistics down by class and per capita than are academic libraries, but both normally keep track of use by categories of users.[41] Special libraries are especially concerned about the use of recently acquired materials: they should be used at least once before they are a year old.[42] Small public libraries also make use studies of recent acquisitions as checks on current selection policy: 80 percent of the latest purchases were found to circulate five or six times within a three-month survey period, according to one such study.[43] Latest-use data have been used to establish optimum core collections, too, as was noted in the previous section.

Other circulation data show up in standards—for public libraries in the United Kingdom by stock turnover and per capita,[44] for example, and for academic libraries by faculty and by students.[45]

Proportionate circulation statistics by subject class compiled over a definite period are excellent checks on overall selection policies and

acquisition rates when compared with proportionate holdings statistics by subject class. The ratio of use to holdings in specific subject classes, both expressed as percentages of the respective totals, is the "use factor" for that subject class and may be determined as specifically or in as much detail as desired, provided that both the circulation and holdings statistics are equally as specific or detailed in the first place.[46] Use factors can measure the intensity of use of all or part of the main collection, or of separate collections such as reference books, reserve books, textbook banks (as in India), or any other special category, and can be used on various kinds of circulation such as overnight, in-library, or interlibrary. The survey period may be as long or as short as conditions (and personnel) warrant.

Such proportionate analyses as these were parts of three comprehensive surveys of Indian libraries made by the author during 1970, one of which was of a developing university library of 86,000 volumes during an eleven-week period. In all three the calculated use factors for various subject classes alerted the surveyor and the library directors to overdeveloped as well as underused areas and to unexpected weaknesses in holdings that were most used by certain large, but, largely ignored, categories of patrons. In one instance, the underuse in a particularly important subject coincided with overborrowing from other libraries in the same subject; an investigation quickly spotted the reason: the old age of the underused part of the collection which previously had been built up and then left to itself while other areas were being built up, piecemeal.

Many librarians, of course, are continually aware of the proportionate use of their collections whether or not they do any formal calculating. Public librarians, especially those with smaller collections, have a real need to be aware of the use made of what they have selected for their libraries. As has been pointed out earlier, they do not have size "going for them" so quality in terms of local interests and needs is of prime importance. Some librarians, e.g., the British Council librarian in Bangkok in the spring of 1971, watch monthly class circulation figures to check the proportionate use of selected parts of their collections. Merritt suggests that the statistical relationship between holdings and circulation (and he adds acquisitions, too) should be considered from time to time "to discover whether certain changes in emphasis might not be in order."[47]

One writer has classified academic courses by Dewey Classification (DC) groups and has matched these course class groups with classed book lists to determine probable book needs by department,[48] with his

library's shelflist to check possible adequacy,[49] and with book use to find out how the two correlate,[50] but not, apparently, with each other. (In India this author used course textbooks and reading lists to get at course DC-class structure, so to speak, but the spread of book classes was too great to be meaningfully synthesized or averaged, so that part of the project was dropped.)

Academic libraries with computer capabilities could easily keep running tabs on library holdings, acquisitions, and use by computing any desired use factors or other proportionate analyses, and could correlate any or all of them with the academic courses that are offered, provided, of course, that the necessary data were put into the computer. At least one library seems headed in that general direction: by using computer-produced circulation records it has studied the use of materials in relation to loan policy, use by defined groups of borrowers, and the use of heavily used materials, all of which are said to have had direct effect on acquisitions.[51]

Expenditures—can be found annually for books and periodicals, annually for library salaries weighted by enrollment, or per capita. Conceivably, the total monetary value of a library's collection could be one more statistic by which to evaluate it, quite literally. Rarely if ever, however, has this gross figure been used or proposed as a suitable measure. Current expenditures, on the other hand, are used regularly in evaluating libraries along with other statistics and other measuring procedures, and they have been recommended as suitable measures by which to evaluate collections[52] on the assumption, perhaps, that the adequacy of a collection depends in great part on its continuing support both for materials and for professional development. Salary and book expenditures also figure in recommended standards.[45]

It must be apparent by now that no library collection should be evaluated only on its own merits, for without adequate financial support and a competent professional staff to develop it, to manage it, and to exploit it properly, a library collection is just an accumulation of different kinds of artifacts, taking up space and existing only to be counted.

CHECKING LISTS, CATALOGS, BIBLIOGRAPHIES

The main advantages of using lists as a method of evaluating collections are that many comprehensive and specialized lists are available in published form; many lists are updated regularly; most lists are compiled by competent professional librarians or subject specialists; ad hoc lists can be geared to individual libraries or types of libraries and to

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particular interests or needs of libraries; most are relatively easy to use; and most are relatively effective in producing an answer. The main disadvantages are that published lists may have been used previously as buying guides by the very library being evaluated; lists are arbitrary samples; published lists soon become outdated unless systematically revised; published lists bear no necessary relationship to a given library's community or to its interests or needs; and lists assume that a core of works exists for every group of libraries.

A common objection to lists as evaluation instruments is that they themselves are are not necessarily standards of quality, an elusive concept at best, so checking a list cannot evaluate the quality of a collection any better than statistics can; the result will be a statistic, too, the number or percentage of the works listed that happen to be held by the library being surveyed. Another frequent criticism is that a list gives no credit for books the library holds that are not on the list but that are as good as or, for local needs, even better than the books on the list the library does not hold.

Nor does a list automatically rate or grade the quality of a library according to a specified standard number or percentage of titles found to be in the library. Presumably, the more titles held the better the library, but how many must be there to get an "A" in quality or adequacy?

Nevertheless, list checking is very common in evaluating library collections, individually or in groups, and the results do tell something about a library's holdings relative to the list used. In spite of the time, cost, and tiresomeness of checking lists, the best yardsticks of adequacy are still "those to which we have become accustomed—the book-selection list and the specialized subject bibliography, frequently reviewed and brought up to date by experts and in the light of use."[53]

Especially compiled lists that are tailored to the particular library or libraries and for well-defined purposes are generally considered much more reliable as evaluators of quality than are the readily available published lists (even those with starred titles) which may be more profitably used as selection guides—which most of them were intended for in the first place. The literature on the use of checklists for evaluating collections is quite extensive and goes back at least into the 1930s.[54]

Standard Catalogs and Basic General Lists—are exemplified by ALA's basic collections trio; H.W. Wilson Company's standard catalog quintet; Bro-Dart's *Elementary School Library Collection; Junior College Library Collection; Books for College Libraries; Choice's* Opening Day Collection;

and the Ontario New Universities Library Project. Carnovsky says, "Perhaps the earliest use of a comprehensive list was made in a Chicago area library study in 1933, when the collections of seventy-nine libraries were checked against the 1926-31 *ALA Catalog*."[55] The celebrated "Shaw list" *(A List of Books for College Libraries)* was first published in 1931[56] and soon became very popular both as an evaluative checklist of holdings and, especially, as a buying guide, partly no doubt because it was so frequently used as a checklist for college accreditation purposes.[57] Danton used it in 1935 to check excellence of selection in college libraries.[58]

Books for College Libraries, the 1967 successor to the Shaw list, was prepared originally for the new campus program of the University of California which involved the simultaneous development of basic undergraduate libraries of 75,000 volumes each for the new San Diego, Irvine, and Santa Cruz campuses.[59] It lists 53,410 titles.[60] The Ontario project was set up to provide basic undergraduate library collections of 44,510 volumes in each of five new universities and colleges in Ontario: Brock, Guelph, Trent, Erindale, and Scarborough.[61]

Catalogs of Important Libraries—are often used, e.g., those of Harvard's Lamont, Princeton's Julian Street, Michigan's undergraduate, Engineering Societies (and other similar G.K. Hall sets), and the Library of Congress. These libraries are distinguished in their fields and the catalogs are reasonably up to date. The Library of Congress may seem out of place here, but on at least three occasions the LC collection was used to evaluate the holdings of the University of Florida library proportionately in subject fields in which Florida was acquiring materials. Sampling and shelflist measurements provided the data for a recent study, and a high correlation in subject content was found throughout twenty-eight subject areas.[62] Processed catalogs of some of the important specialized library collections have become available in recent years, too, and these have been found useful as subject or area checklists in addition to other purposes they might serve.

Specialized Bibliographies and Basic Subject Lists—include lists published by professional, technical, and learned societies; guides to subject literatures; definitive bibliographies of major authors; and comprehensive or selective bibliographies in subject areas. Examples and reports on their use are, indeed, numerous.[63] These specialized bibliographies and lists, like the catalogs of specialized collections, are useful as subject or area checklists and are frequently used along with

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standard or general lists in comprehensive surveys of larger academic libraries.

Current Lists—include best sellers, prize winners, best books of the year, books of selected publishers (university presses, professional societies, government agencies), and annual subject compilations.

Again, examples and reports on use are numerous. Users usually are cautioned that lists such as these must be used even more discriminatingly than established standard lists. The best books published may not all be the best books for a particular library and the best sellers may not all be of more than passing interest, to say nothing of lasting value. Large libraries may have standing orders for the books of certain publishers so checking their lists may be useful only to evaluate dealer performance rather than the up-to-dateness or adequacy of the collection.

Reference Works—include those listed in standard guides to reference materials, either universal or specialized in their coverage. Reference works would normally be caught in a checklist evaluation of a library's collection among the titles in catalogs and on standard lists and subject bibliographies, or they may be checked separately using standard reference guides along with other specialized lists the surveyor may choose. More than thirty-five years ago one investigator concluded that checking just reference books (and not the whole collection) against selected lists would be satisfactory as one among six measures of library excellence recommended for inclusion in accreditation standards.[64] For the next twenty-five years these six measures were used by a number of regional and professional association accrediting teams to evaluate libraries,[65] but now they are gradually being replaced by more comprehensive but less specific measures geared more to the goals and objectives of the individual institutions. However, the reference collection is still inspected critically in any library evaluation.

Periodicals—lists include those of titles currently received, titles kept and bound, backfiles, those listed in standard directories or other compilations (e.g., universal, or by subject, language, country, region, type of library, kind of user), or covered by standard or specialized indexing or abstracting services. Checking periodicals currently received on lists of preferred titles was the only other resources measure of the six referred to above as being recommended for inclusion in accreditation standards.[64] (Two of the other four were faculty and student loans mentioned earlier under *Circulation*. The other two were

salary and book expenditures, also noted earlier.) The periodical collection, like the reference collection, is always examined carefully in any library evaluation, and most thoroughly in technical libraries.

Useful perspectives on a library's periodical collection may be readily obtained from a composite table of the numbers currently received and the backfiles, arranged by subject (as specific as desired) and by country (or state) of origin. Knowing the subject interests of the library's users or parent institution and the countries or cities of the world where these subject interests are strong (in research, development, application), the surveyor can quickly spot strengths or weaknesses in the collection in both subject coverage and country coverage of important subjects.[66] Similarly, a table arranged by subject and by type of publisher (professional society, trade association, government agency, research institute, academic institution, commercial house) can be useful to check appropriateness and authoritativeness of the material received and kept.

Authorized Lists—are prepared by federal, state, regional, or local authorities or by professional associations. While these lists primarily are recommended buying guides, a particular list can be used to determine the proportion of its titles that were actually acquired by a library which may, in turn, decide eligibility for recognition of some sort or indicate the level of the collection depending on the quality of the list. Such lists seem most prevalent in the school library field, but they also are specified in the educational accreditation standards of a few professional associations: e.g., Library Schedules A and B in the *Standards for the Approval of Law Schools* by the American Bar Association[67] and *A Basic Music Library* . . . of the National Association of Schools of Music.[68]

Ad Hoc Lists—are tailor-made to meet the needs of the particular survey and to match the objectives, purpose, and interests of a particular library or group of libraries; they are usually drawn up by the surveyor from many sources. Ad hoc lists have been used very effectively in multilibrary surveys to evaluate strengths of the libraries relative to one another.[69] They have been used very effectively also in single library surveys especially when they related directly to some specific objective of the library such as supporting course work.[70] As noted earlier, ad hoc lists are considered more reliable as checklists than pre-published standard catalogs or basic lists.

Citations—include footnotes, references, bibliographies in significant works in the field or fields of the library's interest. A variety of types of

publications have been used or recommended as citation sources: theses,[71] definitive works,[72] terminal bibliographies,[73] journals, journals most used in the particular library,[74] textbooks, state-of-the-art reviews, and faculty research publications,[75] to name a few.

The evaluation is usually based on whether or not the chosen work, or a substantial part of it, could have been written in the library being surveyed. One assumption is that the present library and the one the author probably used are very similar in purpose, size, and subject coverage. Another assumption is that the work being checked is the kind that could be and ought to be written in the present library.

One problem is that authors are only human and, more than likely, are going to use and to cite whatever is most readily available. Furthermore, they may or may not be similarly motivated or stimulated in different environments so the work probably would not have been written somewhere else. Another problem is that similar institutions may very well emphasize different aspects of the same discipline, and in any case the intellectual, cultural, and social climate at one institution is normally markedly different from that of any other.

Generally speaking, checking bibliographies, catalogs, and lists can be helpful in evaluating a library's collection. For the most fruitful results the checklists used must be carefully selected or especially compiled to match the needs of the survey and the goals and objectives of the library or libraries being surveyed. And they should be used along with other evaluating techniques to get the broadest possible corroboration of the survey's findings.

OBTAINING USER OPINIONS

The main advantages of utilizing user opinions to evaluate the collection are that actual strengths and weaknesses of collection as well as levels and kinds of user needs can be identified; questions can be related to specific goals or objectives of the library; trends in research and changes in interests can be determined; and serious users (e.g., faculty, research workers, professional people) are likely to be expert or at least knowledgeable in the literature of their fields. The main disadvantages of using the opinions of users are that most users are likely to be passive about the library collections and so must be approached individually and polled one at a time; parts of the collection may not be covered because of restricted user interest at the time or because of lack of subject specialists in the field; experts may not agree; and the caliber of current users (and hence their demands) may be too high or too low for the intended or expected level of the collection.

Of all the ways in which to evaluate a library's collection, finding out

what its users think of it comes closest to an evaluation in terms of the library's objectives or mission. User opinion, or consumer opinion, since library users are in effect the consumers of what the library produces for use, is also the most valuable and could be the most potent feedback available to the library's selection process, particularly in public libraries or in special libraries where collections are geared more to contemporary, if not necessarily immediate, needs and demands. Several writers have discussed the pros and cons of polling library users in longer treatments of collection evaluation in general.[76]

Perhaps the major problem, however, in obtaining user opinion is that users are also human and may not always be consistent or cooperative. Furthermore, many users are not even aware of what a library should reasonably be expected to do for them, so how can they judge what is adequate? Patrons become conditioned to what they consider to be a good or a bad collection for their needs and either they return to it regularly or they stay away for good, and the library need never know.

The inadequacy of a collection depends to a large measure on what the user is willing to put up with (or without). If he becomes accustomed to shortages and gaps and to not finding works that appear on standard lists or are cited in basic bibliographies, if he becomes inured to being turned down or to being simply ignored when he makes a request for additions to the collection (perhaps because the library stayed on a depression-induced budget so long), if his literature needs have never really developed beyond what he could find readily at hand, or if he had never seen anything better, then almost any collection may be perfectly adequate.

The adequacy of a collection to support a user's needs depends on the demands the user makes of it and on how well he feels the demands are met. If his demands are moderate, then a modest collection may be quite adequate. If his demands are extensive and highly specialized, then even a strong comprehensive collection may never be adequate enough to satisfy him.[77]

Faculty and Research Workers—are sources of opinion on the levels of a library's adequacy to meet needs. It is common practice in polling faculty and research workers to use questionnaires, the shorter the better, and then, whenever possible, to interview as many of them as seems useful to corroborate, to clarify, to amplify, to resolve disagreements, to check on inconsistencies, or to reach selected nonresponders. The questionnaires may be only short lists of "levels" which may be ticked by the user to rate the adequacy of the collection to meet his

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needs, or they may be lists of openended questions which must be answered specifically (e.g., missing titles, new titles, superseded works) or subjectively.

For example, in his survey of the Columbia University Libraries, Tauber asked the faculty to grade the collections at a level of (1) basic information, (2) working, (3) general research, (4) comprehensive, or (5) exhaustive.[78] In 1961, the faculty of the University of Michigan rated their library three ways: (1) in each person's own field, (2) the library he used most, and (3) the whole university library system, marking each either excellent, good, fair, poor, not ascertained, or not used.[79] Carl White was more locally specific when he asked twenty-three heads of departments of the University of Delhi to rate library resources there: (1) strong enough to support the research of professors, readers, and other teachers in the department; (2) strong enough to support the research of postgraduate students; (3) strong enough to support postgraduate instruction; (4) strong enough to support instruction of undergraduate honors students; or (5) strong enough to support instruction of undergraduate pass students.[80]

A recent survey of the Smithsonian Institution Libraries calculated a Level of Assessment score for each user based on how he rated the collection's support of his research projects: level one supplies basic information, level two covers current knowledge and important historical aspects, level three includes basic materials for independent study, and level four includes most materials for independent study.[81]

There is a striking similarity between these rating scales and the levels or degrees of subject coverage which many libraries now specify in their acquisition policy statements. The University of Illinois Library, for example, uses four categories or levels: general, instructional, comprehensive, and exhaustive research.[82] The John Crerar Library uses five degrees of collection coverage for its subject areas: supplementary reference, reference, research, comprehensive, and exhaustive.[83] Incidentally, 79 percent of the identified subject areas in the University of Illinois library are in the category of comprehensive research. About 70 percent of Crerar's subject collections are in the categories of research and comprehensive research. Each category, of course, is described more fully in the individual published statements as are the survey ratings given above.

Besides being useful to a surveyor, these faculty evaluations of a university library's collections can be very persuasive to the university's budget authorities on occasion,[84] as well as to prospective members of the faculty or research staff.

Students—are sources of opinion on the levels of adequacy to meet needs. Students' needs also are often considered in the evaluation of a library collection, although, as Williams warns, their failures to obtain what is wanted may result mostly "from poor choices of thesis topics."[85] At least one recent study investigated, among other factors, the adequacy of secondary school libraries to provide students with material for independent study projects so frequently assigned. Twenty-eight schools were studied, topics were ranked by size of supporting collections, and, since nearly half the total number of titles in the schools as a group were unique (to only one school), the implications for greater interlibrary loan activity, at least among these schools, were made quite clear.[86]

The General Public—is a source of opinions on a library's adequacy to meet needs. User studies of public libraries in Chicago, Cleveland, and New York were made in the 1930s to determine possible reasons for dissatisfaction with library service at the time, and in each study criticism of the book collection was one of the reasons most often given.[87] Recently Bone and Raines reported that on the evidence in library literature, intensive (that is continuous) "collection evaluation is not currently being practiced in public libraries" partly, perhaps, because "public libraries, unlike school and college libraries, have no accreditation standards or accrediting bodies."[88] While it is true that "dissatisfaction" with the collection is not a very substantive measure of evaluation, it is surprising that so few studies seem to have been made recently to find out whether public library collections are still unsatisfactory, or whether they are now reasonably adequate to meet the needs of their users.

Bone and Raines cite some important recent surveys of public libraries—Chicago 1966, Toronto 1967, Memphis 1967, Baltimore 1968—and suggest that the disappointment and the inadequacies are still there. They suggest further that part of the reason for this (apparently continuing) state of affairs is the public librarian who (1) minimally serves his community's more serious (and more numerous) fraction of potential users, (2) has no skills himself to develop collections in depth, and (3) has no academic "faculties with whom to interact" or from whom he could get advice on building collections.[89]

Merritt recommends that the "presumed 'experts,' the users of the library," be asked about the adequacy of the public library's collection, too, just as with academic library collection evaluations. He admits they are not very vocal about their opinions on collection adequacy, but he

feels that "they need to be asked."[90] Public librarians have always seemed to be most alert to user requests and to trends in circulation, but not many of them appear to have tapped their users' opinions on the adequacy of the collection to meet users' needs.

Librarians—can be questioned as to the adequacy of their collections. The best in-house evaluators of the collection, according to one recent writer, are the reference librarians. They can tell "what is sufficient, what is adequate" for *this* library, and they should be in touch with what the public of the particular library wants.[91] Reference librarians, of course, are usually at least interviewed during a library survey and they, more often than not, are the ones who check the lists, catalogs, and bibliographies discussed earlier.

DIRECT OBSERVATION

The main advantages of direct observation are that it is practical and immediately effective. The main disadvantages are that it requires a subject or materials expert and is not very scientific. To the surveyor who knows the literature, an examination of the bookshelves will quickly reveal the size, the scope, the depth, and the significance of the collection. He can tell at once if duplicate copies or superseded editions inflate the collection, and he can tell if journal runs are substantial and complete. He can estimate the proportions of various parts of the collection and the recency of the material. Later checking of circulation files can verify or revise any preliminary judgments.

To the surveyor who knows something about stock maintenance, an examination of the shelves will show at once the condition of the collection, the proportion that is torn or falling apart, the journals that have hard use or little use, the works that should be discarded or rebound, and the general atmosphere of the whole stack area.

Empty shelves may mean that all books in that class are out and that there are no books left for anyone else, so the acquisition policy should be looked into. Full shelves of unused books may mean that they have never been called for, so again the acquisition policy should be looked into. As Williams says, "Anything more depends entirely upon the experience of the surveyor and the acuity of his perceptions."[92]

APPLYING STANDARDS

The main advantages of applying standards are that they can be related to the library's and its parent institution's goals and objectives; they are generally widely accepted, authoritative, and persuasive in

getting help or support; and they are especially effective when promulgated by accrediting agencies. The main disadvantages are that goals and objectives as stated may not be amenable to objective evaluation; they are not always easy to interpret; they require a high degree of professional knowledge and judgment; experts may disagree about them and any decision affecting accreditation is necessarily a serious matter.

Two recent publications effectively cover many aspects of standards for libraries. The earlier one (March 1971) is a select bibliography of 138 references to literature on elements, criteria, and application of library standards, very broadly defined, published between 1933 (the Raney University of Chicago Library survey) and January 1970 (the Downs and Heussman article on standards for university libraries).[93]

The other one (October 1972) is an entire issue of *Library Trends*[94] with fourteen articles on library standards for all types of libraries with the most attention being paid to those developed by professional library associations or government library agencies and by other professional associations if the standards pertain specifically to libraries. Educational standards of the six regional accrediting associations are mentioned in the article on university libraries, and educational standards of relevant professional associations are discussed in the article on health care institutions. A much earlier work (1958) already referred to[65] covers both the regional and the professional associations comprehensively, but it is now of only historical interest.

One of the most significant (and still quite controversial) changes in standards since the 1940s has been the almost universal stress on quality rather than on quantity as the decisive factor in making evaluations; quality, as has been mentioned, is not easy to get at. Another has been a similar emphasis on institutional goals and objectives as the frame of reference within which the standards are to be applied, and goals and objectives are also difficult to pin down. Evaluation methods or techniques may or may not be recommended in the standards being applied, or in the interpretation or guidelines accompanying them. In any case, in evaluating the library's collection the choice of the visiting team or the surveyor most likely would be one or a combination of the several methods already described.

In this paper it is possible to discuss only a few of the existing standards and, specifically, only those parts of them that may or must be applied in evaluating library collections. Since many have been discussed or at least touched on recently elsewhere,[94] only the standards for specialized education that illustrate different approaches to

collection evaluation will be presented here.

There are thirty-two associations and agencies recognized by the U.S. Commissioner of Education for their specialized accreditation of schools or programs listed in the 1971 (first) edition of *Accredited Postsecondary Institutions and Programs.*[95] All have published standards or criteria for accreditation of their respective educational programs, but the sections in the standards devoted to libraries vary from mere mention, perhaps under "facilities," to several paragraphs under a separate heading. There seems to be no relationship between the length of the statement on libraries and the importance of libraries in the field of study. Typical, but a little longer than most, is this statement from the *Standards for Accreditation 1972* of the American Library Association: "The general and special collections, staff, and services of the institutional library should be adequate to meet the general educational purposes and needs of the library school. The collection of materials in the field of library science should be adequate in scope, size, content, and availability to support the goals and objectives of the school."[96] "An adequate collection of multimedia resources" is mentioned two paragraphs later.

Below are the portions of several accreditation standards or criteria manuals that cover library collections:

Art Education

Library. The library should adequately support the undergraduate program with no less than 5,000 volumes on art and related subjects, plus at least 25 periodicals and should be staffed by an adequate number of professionally qualified personnel. The slide collection should provide at least 10,000 items. These figures apply to institutions with relatively small enrollments. Larger schools or schools with more complex offerings should have proportionally larger library collections. If a graduate program is offered, the library collections should be substantially in excess of the minima stated above.[97]

Business Education

Library. 1. The library facilities of the institution shall serve the needs of its educational program. Audio and audiovisual teaching devices and materials are to be considered in the evaluation of the library. 2. Every institution should have available and easily accessible such standard reference works as an unabridged dictionary, an up-to-date set of encyclopedia, a current world almanac, and recent

editions of handbooks appropriate to the curricula. Resource and reference material adequate to the needs of the faculty should be available. 3. The variety of volumes and periodicals readily available to the students and faculty, recency of publication, appropriateness, and usefulness to the program are major considerations.[98]

Chemical Education

Library. The institution should provide within or near the chemistry building convenient access to at least twenty current chemistry periodicals with good back runs, including some foreign language acquisitions. If *Beilstein* and, particularly, *Chemical Abstracts* are not taken, the Committee will seek concrete evidence of the ability of the institution to provide students with frequent experience in gaining entrance to the chemical literature. Should the chief holdings in chemistry be housed in the main library, important reference works and some current journals should be kept in a departmental reading room.[99]

Law Education

Chapter VI. Library. *601*. The law school shall maintain and administer a library adequate for its program. *602*. (a) The law school library shall contain: (i) all publications listed in Library Schedule A, attached as Annex II, (ii) those other materials that are reasonably necessary for the proper conduct of its educational program, (iii) all publications listed on Library Schedule B, attached as Annex III, except those that are readily accessible to and available for use by students and faculty in another library facility. (b) The Council is delegated the authority to revise the Library Schedules from time to time. *603*. (a) All materials shall be current with respect to continuations, supplements, and replacements. (b) All sets of materials shall be complete and unbroken except when early volumes of a set are either unavailable or are available only at an excessive price. A set is not complete unless it includes all supporting materials, including indices, desk books, digests, finding tools, and citators published as part of the set or generally available for use with the set. (c) All periodicals, except for the current year, shall be permanently bound. (d) If the library contains any materials on microfilm, tape, or similar form, it shall provide the necessary viewing and listening equipment. (e) The library shall contain additional sets of more commonly used materials whenever necessary for efficient use by the faculty and students. (f) The library shall be kept

current with respect to new publications and new forms of publications.[100]

Medical Education

A well maintained and catalogued library, sufficient in size and breadth to support the educational programs that are operated by the institution, is essential to a medical school. The library should receive the leading medical periodicals, the current numbers of which should be readily accessible. The library or other learning resource should also be equipped to allow students to gain experience with newer methods of receiving information as well as with self instructional devices. A professional library staff should supervise the development and operation of the library.[101]

Medical Laboratory Education

g) The Library. The library of the school shall serve the needs of its educational program. The size of the library should be consistent with the enrollment and could vary accordingly. Audio-visual teaching devices and materials will be considered in the evaluation of the library. Medical laboratory text books, periodicals, pamphlets, etc., should be consistent with the courses and procedures in use by the institution and should be easily accessible. Recency of publication is of utmost importance. Every school shall have available reference books in the various subjects and specialities of medical laboratory technology. Although the number and variety of volumes and periodicals is important, appropriateness, availability, and usefulness to the program are the major considerations. Subject to variations in the various educational programs and institutions, minimum requirements should include: Adequate text books on medical laboratory techniques; Adequate books on medical laboratory specialties; Adequate weekly or monthly periodicals; Various state and national journals dealing with medical laboratory techniques. Appropriate audio-visual equipment is available or there is access to this material. [102]

Optometric Education

VII. Library A. Resources. The resources of the library should be adequate to meet the instructional needs of the educational program. The actual number of holdings is not the sole criterion of adequacy. Judgment will be based on the relationship between the nature and extent of the holdings and the curriculum.

1. *Books and Other Reference Materials* The number of standard works of reference in relation to the fields of instruction and to general knowledge as well as the number of dictionaries, encyclopedias, and other reference sources must be adequate. Each section must be kept current. 2. *Periodicals* An adequate number of periodicals which are applicable to the curriculum should be maintained. Selected periodicals should be bound and indexed annually. 3. *Audio-Visual Materials* Suitable audiovisual library facilities should be developed for use by individual students, for use in classrooms, laboratories and clinics. These instructional aids must be readily available and their use encouraged.[103]

Pharmaceutical Education

D. *Library* ....The responsibilities of the librarian include: (1) the development of adequate holdings in suitable current reference books and periodicals and a working procedure for making additions to the collection as suggested by the faculty.[104]

Social Work Education

Library ..5200. Library facilities..5210. The book, periodical, and reference collection shall support—by quality, size, nature, and appropriate duplication of holdings—the instructional and research programs of the school and be assembled in such a way as to be readily accessible for student use ..5211. The holdings shall include the considerable body of fugitive material which is essential to social work education ..5212. If a school offers post-master's programs of study, the library holdings of the university shall include, in addition to those necessary for the master's degree program, a wide range of background material, a wide range of holdings suitable for research purposes, and a strong collection in the social and behavioral sciences and the humanities..5213.[105]

(The Council on Social Work Education uses the ACRL's *Guide to Methods of Library Evaluation* in its accreditation procedures.) [106]

Speech Pathology and Audiology Education

2. The library facilities of the institution must include an adequate variety and number of books, periodicals, and other reference materials in speech pathology, in audiology, and in related fields.[107]
(The "guidelines" which accompany the standards state: "Books and journals should reflect the variety and depth of areas needed for clinical certification and should represent both past and present con-

tributions in speech and hearing. It is difficult to arrive at a 'number' that is meaningful because of the breadth of material which may be viewed as pertinent to our field. It is sometimes possible to get a cross-section of the library facilities (and usage) by a study of the students' research products, the sources used in the studies, and the bibliographies and sources of readings actually used in coursework.")[108]

Teacher Education–Basic Programs

4.1 *Library* Standard: The library is adequate to support the instruction, research, and services pertinent to each teacher education program. 4.2 *Materials and Instructional Media Center* Standard: A materials and instructional media center for teacher education is maintained either as a part of the library, or as one or more separate units, and is adequate to support the teacher education programs.[109]

Teacher Education–Advanced Programs

G-4.1 *Library* Standard: The library provides resources that are adequate to support instruction, independent study, and research required for each advanced program.[110]

Illustrative questions which accompany the standards include these:

Standard 4.1 *Library:* What evidence shows that the library collection includes: a. Standard and contemporary holdings in education (books, microfilms, microfiche copies, etc)? b. Standard periodicals in education? c. Such additional specialized books, periodicals, and other resources needed to support each teacher education program? What evidence shows that the institution, in maintaining and improving the quality of its library holdings in teacher education, seriously considers the recommendations of: a. Faculty? b. Appropriate national professional organizations and learned societies? c. A nationally recognized list (or lists) of books and periodicals? [Questions relevant to the materials and instructional media center and to the library in graduate programs are also included.][111]

Theological Education–General

V. *Library* B. Resources 2. An adequate portion of the seminary's educational and general income shall be devoted to the support of the library program. Evaluation of the adequacy of this support will be made by comparing support, holdings, and resources

of an institution or cluster with those of other institutions or clusters having similar programs and comparable situations.[112]

Theological Education—Master of Divinity

III. *Resource Requirements* C. Aids to learning. The program shall provide ready access to sufficient books, periodicals, and media materials to facilitate the achievement of its goals and objectives (see section on Library, pp. 12-14).[113]

Theological Education–Doctor of Education

III. *Resource Requirements* B. Library. The program should have ready access to sufficient material in religious education, education, related behavioral and social sciences, and theological disciplines to enable it to achieve its goals and objectives. [Specialized doctorate programs require more substantial resources and research collections in each field of study.] [114]

Of special interest in the accreditation process of the American Association of Theological Schools is a set of four questionnaires on library matters sent out early enough to have results available to the accrediting team at least two weeks before the actual visit. Two of these deal more specifically with the collection: one is a statistical review and the other is an overall library program evaluation (including a question on how well the collection supports the curriculum and research) which is to be filled out by members of the library committee, by students, and by faculty.

The foregoing selections of standards relating to library collection evaluation run the gamut from complete permissiveness to almost complete restrictiveness as to numbers of volumes and as to specific titles of books and journals, with the only common denominator being adequate support of the educational program. The principal area of controversy, referred to earlier, is the deliberate lack of specificity in both numbers and titles all through most of the standards. Controversy arises also around the meaning of "adequate support" and the questions of how and by whom it is determined. Various fund-granting agencies of the federal government have begun to insist on certain prerequisites before awarding grants—prerequisites which may be specific as to size or as to policy—and these tend to take on the authoritativeness of standards if they have not been already incorporated into other standards.

Not long ago the director of the National Council for Accreditation of Teacher Education discussed various professional problems related

to the accreditation process and raised a number of questions about the library part of existing standards. Unfortunately, he concludes, no one has answers to them, so "all the parties concerned turn to the basic folklore, to views which past practice, reason, and discussion have led us all to accept. . . . And there are few complaints. If no one knows much better, even though there is a vague suspicion that all is not right, everyone accepts the common yardsticks."[115] NCATE's own standards have been examined rather critically, too.[116]

The final two collection evaluation methods to be discussed take into consideration more than just the one library's collection, but in each case the adequacy of the collection being studied determines whether any further steps are to be taken (i.e., whether other libraries will be visited) in order to satisfy the needs of the particular library's users. The two will be grouped together since they are somewhat similar in this "reaching out" respect.

RATING TOTAL (INTERNAL + EXTERNAL) RESOURCE ADEQUACY

The main advantages of rating total adequacy include that it is realistic; it uses quantitative methods; it recognizes interdependence of library collections; it encourages interlibrary cooperation; and it demonstrates the value of library networks or systems. The main disadvantages are that it is dependent on knowledge of what resources are available where; it may be difficult to establish an adequate test sample; and it is relatively complicated so that it may be more susceptible to human error.

All the evaluation methods discussed thus far have assumed a test-library's collection to be an independent, self-contained whole. However, it has become more and more obvious that no library is, can be, or, indeed, should be, completely self-sufficient, so it seems reasonable that other resources which are readily available to augment or supplement a given library's own resources should also be considered in evaluating the adequacy or quality of that library's collection. What is being rated here, then, is the totality of the resources available to satisfy a library user's needs efficiently and effectively. In some cases this may include all the libraries in a city, in a system or network, or in a country, but speed, efficiency, or effectiveness (or all three) may suffer in the process. A total rating of resources adequacy would include the following aspects.

A Document Delivery Capability—should be able to satisfy a request for a specific document. The evaluation is based on the speeds required to deliver each of a test sample of 300 documents from a library's own

collection or from other libraries, expressed as an average "mean speed" on a scale from 1 to 5 where 1 signifies that all test items are found on the shelf in the test library and 5 signifies that the library owns none of the test items and borrowing them would require more than a week.[117] To arrive at a "Capability Index" this mean speed is fed into a simple mathematical formula:

$$\text{Capability Index} = \frac{5 - \text{Mean speed}}{4} \times 100.$$

The Capability Index becomes 100 when all test items are found on the shelf and it becomes 0 when none of the test items would be obtainable in a week or less.

Results of employing the standardized Document Delivery Tests (described at some length in the Orr, et al. paper cited previously) on ninety-two medical school libraries and on fifteen major biomedical resource libraries were reported in another long article in July 1972.[118] An interesting mathematical model is also developed, or reformulated from the earlier report, in which the real or virtual capability of a library, as seen by its users, equals the algebraic sum of its basic capability afforded by its holdings minus the combined losses attributable to use of the collection, processing activities, relative inaccessibity of items, and "housekeeping problems" plus the gain realized by coupling with other resources through interlibrary borrowing. The authors say that for a particular library or group of libraries empirical values for each of the variables can be calculated easily from the capability measures and the status statistics.[119] And predictions of basic capability can be made from collection size using regression equations derived for the purpose.

Another spin-off from the research project which led to the development of the Document Delivery Tests and the Capability Index mentioned above is a bibliography of 178 items published between 1915 and mid-1968 dealing with objective measurement of library services and operations that could be useful to biomedical librarians.[120]

Relative Use of Several Libraries—refers to the regular use of other libraries as a symptom of the adequacy of the primary library (i.e., the one being evaluated). As pointed out above, users soon learn the strengths and weaknesses of a library's collection for their own needs, and they adapt or go elsewhere. So, a record of few unfilled requests may mean either that the library does have almost everything its users need or that the library is being bypassed except for the needs its users feel it probably can fill.[121]

Elaine Sloane, in her study of the Smithsonian Institution Libraries,[81] correlated user level-of-assessment scores for those collections with the total numbers of libraries these same curators used within and without the Smithsonian's library system. She found that the more "other" libraries they used, the lower was their assessment of the Smithsonian's collections; but the more libraries used within the system, the higher the assessment.[122] She also found, not too surprisingly perhaps, that historians used more libraries outside the system and fewer inside than natural scientists did, evidence of the historians' more diversified interests.[123]

Another recent study reported on the use of 17 libraries in the Detroit area by 129 medical students.[124] Size, services offered, and distance from the primary work site were not as significant in explaining use of individual libraries as were relevant resources and mission of the particular parent institution. The primary library (that of the medical school) has more biomedical resources than any other library in the area so it was most used, even though certain other libraries were much larger or more conveniently located. One related result of this study was that the administration may decide to help support some of the other libraries that are heavily used by medical school students, or it may decide to improve the medical library's services or resources its students are going elsewhere to get.

Resources of a given library are still primary and basic to the needs of that library's users, and so they must be as adequately developed as possible to meet those needs. But cooperative arrangements of various kinds are beginning to take some of the pressure off the local library and, at the same time, to expand its resources and its horizons to the benefit of its local users. The totality of resources available through the local library, therefore, ought to be the "collection" that is evaluated as to its ability to satisfy the needs of the users efficiently, effectively, and expeditiously—in a word, adequately.

SELECTION METHODS AND COLLECTION EVALUATION

Since a library's collection is the product of the library's acquisition program including, especially, its selection activities, it will be in order to take a brief look at some of the more common selection methods presently in vogue to see how they relate to the process of evaluating the collection.

Materials are selected for a library to satisfy the needs of the library's users in accordance with the library's current acquisition policy which is established and kept up to date within the framework of the library's

stated goals and objectives. The resulting library collection is evaluated by finding out how well it does, in fact, satisfy those needs using the same frame of reference used in the selection process: if selection has been well done, the collection will rate high.

The selection process in public libraries has a long history and it has successfully adapted itself to changes in philosophy and method over the years, largely, no doubt, because selection has always been in the hands of public service librarians who have been in a position to know and to react quickly to the changing needs and moods of the community.[125] Such discussion as there has been on public library collection building has centered mostly around disagreement concerning the role of public libraries (e.g., educational vs. popular vs. all-things-to-all-people), around censorship, and, more recently, around developments such as the "Greenaway Plan" and the various cooperative systems and other projects now attracting attention.[126]

Part of the difficulty in evaluating a public library's collection has been the uncertainty or even ignorance on the part of its public as to what it should be and do in the first place, and part has been the inexperience of its public in articulating what its needs and interests really are. These conditions reflect inadequate public relations or inadequately stated goals and objectives and so to that extent relate to selection. Continuous evaluation, at least to some degree, seems to be common in well-run, smaller public libraries and seems to have a relatively speedy effect on acquisitions, possibly because good public librarians are (and must be) close—and sensitive—to public opinion, which is, as suggested above, a good barometer of the adequacy of a library's collection.

Special librarians also have to be both close and sensitive to user opinion even more than good public librarians, or they may be out of a job. Consequently, goals and objectives, user needs, selection, resources, and interlibrary relations are all analyzed regularly in all well-run special libraries.

Selection in school libraries very often means choosing from prescribed or recommended buying lists, so evaluating the libraries by checking the same lists hardly seems useful or proper. Many school librarians, of course, do their own selection using current selection aids, frequently with the help of the faculty. A recent evaluation of book selection processes for elementary school libraries based in large part on an evaluation of the respective collections could not detect much difference in the quality of the collections built up in either way, selecting from authorized buying lists or selection from traditional

book reviewing aids.[127] The qualifications of the persons doing the selection (or preparing the buying lists) has a lot to do with it. An earlier survey of research in school librarianship covering some fifty doctoral dissertations completed between 1950 and 1967[128] noted that among the general conclusions reached by the whole group of doctoral studies reviewed, the first was that collections assembled or selected by persons not qualified in book selection are inadequate,[129] and noted also that a number of the dissertations dealing with state or national school library standards suggested that they be revised.[130]

Selection of materials for academic libraries traditionally has been the responsibility of the respective faculties, but during the past forty years or so selection more and more has become the responsibility of public service librarians, subject literature specialists, and bibliographers in the academic libraries themselves.[131] More critical evaluations of library resources had questioned the overall effectiveness of faculty selection in building balanced collections, and many faculty members were getting too busy to bother. Of course, many scholars still take active interest in building research collections,[132] and most academic librarians encourage and welcome faculty participation in the selection process, but the final responsibility for selection is the library's.

Maybe it was World War II that stimulated greater academic interest in foreign lands and people, caused the proliferation of area study programs, and promoted the development of comprehensive cooperative acquisition projects such as the Farmington Plan[133] (now mostly phased out), the PL-480 foreign acquisitions program,[134] the Latin American Cooperative Acquisitions Program,[135] and the National Program for Acquisitions and Cataloging.[136] And maybe it was the sudden awareness of so many more U.S. publications, the providential availability of so much more money, and the prestigious necessity of keeping up with so many more traditional rivals that led to the multiplicity of blanket order and approval plans.[137]

In any case, during the past twenty-five years the acquisition programs of most academic libraries have expanded very rapidly, but, as far as can be detected from the literature, they have been surprisingly uncritically monitored except by a few admonishers who deplored the seemingly indiscriminate "selection" involved in building library collections by such means,[138] and by a number of writers whose appraisals seem more instinctive than objective. It simply is difficult, apparently, to devise a suitable cause-and-effect test that will evaluate mass-action acquisitions programs qualitatively rather than quantitatively.

THE PAST AS PROLOGUE

Among the concepts and ideas that have appeared and reappeared in this review of the literature on evaluation of library collections, four seem to have the most far-reaching implications for the development and the evaluation of all types of libraries:

1. The emphasis on library goals and objectives as the foundation for a library's selection or acquisition policy, and as the framework within which the library's collection is to be evaluated.
2. The stress on quality and on user needs rather than on quantity and on basic lists alone as the decisive factors in building a collection and in evaluating it.
3. The realization that no library can ever be completely self-sufficient, and that increased interlibrary cooperation may be the only possible solution to the growing problem of providing library collections adquate to meet the needs of library users, wherever they may be.
4. The virtual necessity of having competent professional librarians in such strategic spots as selection and public service, to insure proper development and use of the library's collection.

Goals and objectives must be determined carefully, updated regularly, described clearly, and stated in terms that can be evaluated objectively.

Quality for a particular collection depends on user needs and it may change as user needs change, so it is essential that users are polled periodically as to their needs and as to their opinions on how well their needs are being met.

Interlibrary cooperation of all kinds must be encouraged and newer areas of possible cooperation must be explored, not only among similar libraries but also among libraries of different types and sizes. The library user's major concern is the totality of available resources upon which he draws and not just one library's collection. It is this totality that should therefore be evaluated.

Competent professional librarians make the difference between a general collection and a dynamic, well-used, highly regarded library. They are the links between the community's needs and the library's collection on one side, and between the library's collection and a specific user's needs on the other. They interpret the community to the library through selection and they interpret the library to the members of the community through public service. The proper evaluation of a library's collection must, therefore, take into consideration the pres-

ence or the absence of competent librarians in the important areas of selection and public service.

Goals and objectives, quality, interlibrary cooperation, the needs of the community, and competent librarians all must be considered in evaluating a library's collection.

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