

A CITATION ANALYSIS OF DOCTORAL DISSERTATIONS IN  
LIBRARY AND INFORMATION SCIENCE, 1961-1970

by  
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Submitted in partial fulfillment of the requirements  
for the Degree of Doctor of Philosophy

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School of Library Science  
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We hereby approve the thesis of

William Grace

candidate for the Ph.D. in Library & Information Science  
degree.

Signed:

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(Chairman)  
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**A CITATION ANALYSIS OF DOCTORAL DISSERTATIONS  
IN LIBRARY AND INFORMATION SCIENCE, 1961-1970**

**Abstract**

**By**

**WILLIAM BRACE**

The literatures of several fields such as physics and speech have been studied by librarians and information scientists in an attempt to identify patterns of citation, lists of significant authors, and the forms of materials most frequently cited. However, librarians and information scientists have not studied their own literature in the same manner. In this study, the literature of library and information science in the form of the doctoral dissertation is considered from the point of view of their joint appearance in 14 library schools giving the doctorate.

The present study uses the citations in 202 dissertations written between 1961 and 1970 at library schools having masters degree programs in library and information science which are accredited by the Committee on Accreditation of the American Library Association. The 20,298 citations are categorized by the type of library studied or the central focus of the dissertation and by

the type of activity or the type of service investigated. All of the citations are classed by the form of the material cited. Various statistical measures are made to identify possible correlations.

The study attempts to identify a core literature or a group of authors central to the field of library and information science. A core of highly cited authors is not clearly identified although there tend to be some personal and corporate authors cited more than 25 times. An analysis by title shows a limited number of titles which are cited more than seven times. The Bradfordian distribution applied to the journals in this study demonstrates the absence of a middle core. This absence and the appearance of non-library or information science titles in the journal distribution at high levels of occurrence belies a core of research literature in the traditional sense.

Some correlations are shown to exist between the different categories. There is shown a correlation which suggests that a kind of specialization among the several library schools may exist.

The present study shows the literature of the field of library and information science almost evenly divided between book literature and journal literature. This study shows wide variation in the field. With a different approach, the knowledge base of the field may be shown to be more

cohesive than demonstrated here. The doctoral dissertation as the source of the data is assumed in this study to be a mirror of the research productivity of library and information science.

The absence of a single core of research literature and the absence, for the most part, of citation patterns demonstrated in this study does not so much suggest that library and information science has no intellectual base as it does suggest that the intellectual or knowledge base of the field is not universally recognized as a specific set of individual titles. The existence of a weak core of significant authors does reinforce the possibility of a knowledge base spread over many titles and, hence, elusive using the presently available techniques of citation analysis.

### ACKNOWLEDGMENTS

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## CHAPTER I

### INTRODUCTION

The literature derived from research in the field of library and information science<sup>1</sup> is diverse in its content and consists of reports of current practices, case studies of librarians and libraries, some theoretical studies, much individual opinion, and a few studies which have attempted to expand professional knowledge. Although librarians have looked for similarities in the research literatures which they process and store for other disciplines, it is interesting to note that they have not applied analytical techniques to much of the research literature of their own field. Fussler's study of the use of the literature of chemistry and physics is one of

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<sup>1</sup> Within this study, library and information science shall be defined as the combination of those areas termed "Library Science" and those termed "Information Science" as used in the context of the curricula of those educational institutions called "library schools" or the equivalent of such term. The term "librarianship" is also used in this study as an alternative term for the field of library and information science. The definitions for "Information Science" are multiple and conflicting; this study is concerned with the term as it is conceived within the library school.

the more significant contributions to the knowledge about the use of a literature.<sup>2</sup> In many respects it has been a model for other investigations. Possibly there are several reasons for the librarian's not studying the literature of his own field: 1) the librarian is essentially a service oriented person who rarely, as Bradford did, observes with a questioning mein and then reduces his observations to publications for all to read; 2) the profession does not provide incentives for research; 3) the possibility that librarians are frequently not involved in the research process as they do their work, or 4) that they do not document such investigations as they do undertake.

One body of literature within library and information science which incorporates the results of research is the doctoral dissertation. It is a substantial paper that is "typically based on independent research."<sup>3</sup> However, the number of dissertations within the field of library and information science has not been large.

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<sup>2</sup>Herman Howe Fussler, "Characteristics of the Research Literature Used by Chemists and Physicists in the United States." (Ph.D. dissertation, University of Chicago, 1948.)

<sup>3</sup>Webster's Third New International Dictionary of the English Language, Unabridged. (Springfield, Mass.: G. & C. Merriam & Co., 1961), p. 656.

The first library science dissertation to be so identified was that of Upton<sup>4</sup> at the University of Chicago in 1930. Doctoral dissertations in librarianship but submitted through other graduate departments were also few in number, the first of these having been written by Tai<sup>5</sup> in 1925. Between 1925 and 1959, 224 dissertations in library and information science were written. Of the 224, 129 were from universities having programs in library science at the graduate level and, of that number, 80 were written at the University of Chicago Graduate Library School. Indeed, until 1951, Chicago was the only library school offering and awarding the doctorate in library science. The categories of the subjects investigated were: historical (45), administration (13), technical services (11), reading (9), content analysis (8), and bibliographic organization (9), which Shera feels is the antecedent of information science.<sup>6</sup> Nathan M. Cohen, Research Librarian, Library Services Branch, Bureau of Educational Research and Development, U.S. Office of Education, observed the

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<sup>4</sup>Eleanor S. Upton. "A Guide to the Sources of Seventeenth-Century English History in Selected Reports of the Royal Commission on Historical Manuscripts." (Ph.D. dissertation, University of Chicago, 1930.)

<sup>5</sup>Tse-Chien Tai. "Professional Education for Librarianship." (Ph.D. dissertation, State University of Iowa, 1925.)

<sup>6</sup>Jesse H. Shera. The Foundations of Education for Librarianship. (New York: Becker and Hayes, Inc., 1972), p. 401.

beginnings of an increase at the end of the 1950's.<sup>7</sup> Such an increase in the productivity of dissertations in the field is evident in the 1960's. Between 1961 and 1970, the period for this study, students of library and information science at Canadian and United States schools produced over three hundred dissertations. Consequently, the doctoral dissertations now comprise one of the larger bodies of research produced literature in library and information science. This dissertation literature consists of an examination of questions and problem areas within the field of library and information science. The general academic assumption is that the dissertation is an original contribution to the body of knowledge within the area investigated. Consequently, through an analysis of the bibliographic citations made in the dissertations, it should be possible to make some statements about the research literature of the field in terms of characteristics such as form, authorship and utilization. The methods of analysis are such measures as bibliographic coupling, citation tracing, the Bradfordian distribution, and refined statistical procedures which have been borrowed from behavioral research. The various measures and their theoretical bases are described in several articles and doctoral

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<sup>7</sup> Nathan M. Cohen and others. Library Science Dissertations: 1925-1960. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1963. (Office of Education Bulletin OE 15044, No. 38.)

dissertations. The most notable articles in the area have been published in the Journal of Documentation. Perhaps the most direct explanation of these techniques is made by Donohue in his dissertation.<sup>8</sup>

Using several of the above techniques, this study seeks to answer one major question: Can a common core research literature of authors or articles, or both, be identified for the field of library and information science? Is it possible to identify a core of significant authors? If such cores exist, there are attendant questions such as--What relationships exist within the literature or literatures and what is the nature of that core? What implications can be drawn relating to the separate areas of activity--public, school, academic and special libraries--of the field? What relationships exist within the literatures as used by those writers examining the different categories such as cataloging, administration, reference, etc., within the areas? If there is no core literature, the attendant questions then address themselves to a fundamental problem of the dissertation as representative of research in librarianship.

The research hypotheses for this study are that there are in the research literature of library and information science 1) certain categories of materials that

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<sup>8</sup> Joseph Chaminade Donohue. "A Method for the Analysis of a Subject Literature." (Ph.D. dissertation, Case Western Reserve University, 1970), pp. 12-35.

are cited at a higher rate than one would expect in random use; (2) that certain authors will appear to be cited more frequently than one would expect in random citation procedures, and, 3) that these use or citation patterns are identifiable within the dissertations of the field.

Through the use of statistics, correlations between the various patterns and/or categories will be developed and from those correlations insight into the knowledge base of one type of library research will be evident.

The working hypotheses for this dissertation are derived from the questions above. The several hypotheses developed for the study are:

1. In the research literature of library and information science there is a core of significant authors, either individual or corporate, which can be identified among the numerous authors cited by the writers of dissertations in library and information science.

2. There may be marked differences in the citations made in the sub-field of library science when compared to the citations made in the sub-field of information science even though both deal with the same general topics and these citation differences may be in the types of publications cited as well as in quantity of citations and recency of materials.

3. Journal citation patterns in both library and information science will conform to the normal Bradford

distribution indicating that the two fields are either a separate discipline together or a combination of two related fields.

4. The dissertation, being the final product of the academic research process, will appear in the citation patterns of dissertations in library and information science as a significant and prominent number.

5. Citation patterns will differ between those dissertations concerned with different types of libraries and the type of publication cited.

6. Citation patterns will differ between those dissertations concerned with different areas of library activity and the type of publication cited.

7. Citation patterns will differ between those dissertations concerned with different types of libraries and the area of activity investigated.

This citation analysis of doctoral dissertations in library and information science is the first systematic investigation into the research literature of the two subject areas jointly, though each has been studied separately. The study accepts the validity of citation analysis as a research technique established by Fussler and others. The study is based upon several assumptions:

1) that the doctoral dissertation is indeed an acknowledged piece of research literature which is a contribution to knowledge;

2) that the basic area of concern in information and library science is essentially the same, i.e., the acquisition, organization and dissemination of information through literatures;

3) that the fundamental characteristics of the use of the literature within the field will provide the basis for making rational statements about the field itself; and

4) that the identification of categories within the cited literature can be utilized to make statements about the field.

The body of dissertations used for this study is 202 dissertations written at 14 universities having library science programs at the masters degree level which were approved by the Committee on Accreditation of the American Library Association and were listed in the 27th edition of American Library Directory<sup>9</sup> as having doctorate level programs in library and information science. The University of Maryland, though listed in the directory, did not award any doctorates in either library or information science during the ten-year period of the study.

The various categories of materials developed in this study, first, from a pilot study done using only the

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<sup>9</sup> American Library Directory, 1970-71. 27th ed.  
(New York: R. R. Bowker Company, 1970), p. 1092.

dissertations from Case Western Reserve University to which were subsequently added several dissertations from library schools not having masters degree programs accredited by the American Library Association. Second, as the data expanded in quantity, the categories were expanded in number to accommodate the distinctive categories. (In only one instance did this ad hoc method of classification lead to an incorrect classification. This instance was the creation of the category "Patent Literature." That classification was adequately covered by "Federal Documents" and, since only one dissertation cited "Patent Literature" [Smith, Chicago],<sup>10</sup> the category became meaningless. However, putting the fifty patents cited into the "Federal Documents" category did not change the statistical pattern.)

A total of 20,994 citations is the data base for the study. In extracting the bibliographical citations from the 202 dissertations, those citations in foreign languages were removed from the data base primarily because in the larger numbers of dissertations they are few in number.<sup>11</sup> The method of data collection and the computer analysis of the data base are described in Chapter II.

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<sup>10</sup> Richard Daniel Smith. "The Nonaqueous Deacidification of Paper and Books." (Ph.D. dissertation, University of Chicago, 1970.)

<sup>11</sup> A total of 1,949 foreign language citations, or 8.7 percent of the grand total of 22,247 citations, was removed.

Chapter III of this study will present the findings of the analysis of data and Chapter IV will present the general and specific implications of the study. Chapter IV will also discuss the areas for utilization of this study as well as the areas for related and future study.

## CHAPTER II

### DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE 1961-1970: COLLECTION OF THE DATA

The ideas for investigating the data bases of doctoral dissertations in library and information science were formulated in late 1970 when it became apparent that such an investigation of the field had not been made which incorporated traditional library science and information science into a single study. A pilot study into the knowledge bases of library and information science dissertations was undertaken using only the dissertations from Case Western Reserve University. As the pilot study indicated the feasibility of such an investigation, in January, 1971, Rosary College Graduate School of Library Science indicated to this writer that a collection of dissertations in library and information science on microfilm would be beneficial to the library science collection and that the collection could be used for this study. Accordingly, the process of identifying the desired dissertations was begun in the spring of 1971. The financial arrangements for purchasing the microfilms dictated that the orders be processed by the end of the spring semester, 1971.

The identification of dissertations for this study began with Dissertation Abstracts for the period 1961-1970.<sup>1</sup> The several indexes were checked under the headings "Library," "Libraries," "Instructional Materials Centers," and "Information Storage and Retrieval." All cross references were checked from these headings to all other subject headings with the exceptions of "Children's Literature" and "Computer Programming." These two headings were omitted because, after considerable checking, it was determined that the heading "Children's Literature" led to studies not related to libraries such as the writing

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<sup>1</sup>"Author Index--Volume 21." Dissertation Abstracts 22 (November 1961).  
 "Cumulated Subject and Author Indexes to Volume 22--1961-62." Dissertation Abstracts 22 (June 1962).  
 "Cumulated Subject and Author Indexes to Volume 23--1962-1963." Dissertation Abstracts 23 (June 1963).  
 "Cumulated Subject and Author Indexes to Volume 24--1963-64." Dissertation Abstracts 24 (June 1964).  
 "Cumulated Subject and Author Indexes to Volume 25--1964-1965." Dissertation Abstracts 25 (June 1965).  
 "Cumulated Subject and Author Indexes to Volume 26--1965-1966." Dissertation Abstracts 26 (June 1966).  
 "Cumulated Subject and Author Indexes to Volume 27--1966-1967." Dissertation Abstracts 27 (June 1967).  
 "Cumulated Subject and Author Indexes to Volume 28--1967 to 1968." Dissertation Abstracts 28 (June 1968).  
 "Cumulated Subject and Author Indexes to Volume 29--1968 to 1969." Dissertation Abstracts 29 (June 1969).  
 "Cumulated Keyword and Author Index to Volume 30--1969-1970." Dissertation Abstracts International 30 (1970).  
 "Cumulated Keyword and Author Index to Volume 31--1970-1971." Dissertation Abstracts International 31 (May 1971).

of literature for children, teaching of literature appreciation to children and the use of literature to expand the imagination. In a like manner, the heading "Computer Programming" led to non-library related topics as problems in programming in non-library fields, to languages and to mathematical areas. A dissertation was included in this list whether the awarded degree was a Doctor of Philosophy, or Doctor of Library Science. The resulting list of dissertations initially identified from Dissertation Abstracts and its successor Dissertation Abstracts International contained 186 dissertations.

The lists of theses and dissertations published by several authors in the Library Quarterly<sup>2</sup> were checked to

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<sup>2</sup>Howard W. Winger. "Graduate Theses Accepted by Library Schools in the United States, 1960-61." Library Quarterly 32 (January 1962): 62-70.

Margaret Kesling Graydon. "Graduate Theses Accepted by Library Schools in the United States, 1960-63." Library Quarterly 33 (October 1963): 334-349.

Howard A. Winger. "Graduate Theses Accepted by Library Schools in the United States, 1963-64." Library Quarterly 34 (October 1964): 387-395.

Howard A. Winger. "Theses and Reports Accepted by Graduate Library Schools in the United States and Canada: 1964-65." Library Quarterly 36 (January 1966): 38-47.

Richard A. Davis. "Theses and Dissertations Accepted by Graduate Library Schools: 1966 Through December 1967." Library Quarterly 38 (October 1968): 442-452.

E. J. Humeston, Jr. "Theses and Dissertations Accepted by Graduate Library Schools: 1968 Through December 1969." Library Quarterly 40 (October 1970): 423-433.

identify the remaining twenty-eight dissertations. Thus, a total of 214 dissertations was tentatively identified for this study which covers the ten-year period, 1961-70. The dissertations were ordered on microfilm in June, 1971.

The pilot study indicated the need for some selectivity and the large numbers of citations involved dictated a problem with volume. Certain limitations were introduced into the study to delimit the size of the data base and to produce a more uniform, hence, meaningful, set of dissertations to study.

With the appearance of the bibliography of dissertations in library and information science, 1925-1972, by Schlachter and Thomison,<sup>3</sup> it became apparent that the list of 214 dissertations was not complete. Seventeen dissertations were omitted from this study and certain dissertations were included in the 214 which had not, for unknown reasons, been included in Schlachter and Thomison. Further, the presence within the 214 dissertations of those from Syracuse University and other departments of education did not conform to the concept of using dissertations

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<sup>3</sup>Gail A. Schlachter and Dennis Thomison. Library Science Dissertations, 1925-1972: An Annotated Bibliography. Littleton, Colorado: Libraries Unlimited, Inc., 1974.

produced with a "library school background," i.e., written at a library school accredited by the Committee on Accreditation of the American Library Association. By omitting the dissertations from Syracuse University and by omitting all dissertations not coming from the "library school background" as opposed to those coming from the education department, the total number of dissertations in the study dropped to 202. The shorter list is felt to be more meaningful in that the dissertations originate from academic programs having as a base comparable master's degree programs. The 202 dissertations are those which were written at American universities having ALA accredited library school programs between the years 1961 and 1970 as they were recorded in issues of Dissertation Abstracts and Dissertation Abstracts International, 1960 through May, 1971.

With the exception of the five schools which produced the largest numbers of dissertations--Case Western Reserve University (19), Rutgers--The State University (26), Columbia University (30), The University of Illinois (35) and, the leader, The University of Michigan (40)--the writing of dissertations at the schools covered by this study does not produce accepted dissertations in quantity. At four schools there were only two dissertations written during the ten year period of this study. In some respects, there does not appear to be a large

TABLE 1

NUMBERS OF DISSERTATIONS WRITTEN AND ACCEPTED BY  
LIBRARY SCHOOLS AT AMERICAN UNIVERSITIES HAVING  
ALA APPROVED MASTERS DEGREE PROGRAMS, 1961-1970,  
BY SCHOOLS IN RANKED ORDER

| Rank Order | School                             | Number of<br>Dissertations<br>Written |
|------------|------------------------------------|---------------------------------------|
| 1          | University of Michigan             | 40                                    |
| 2          | University of Illinois             | 35                                    |
| 3          | Columbia University                | 30                                    |
| 4          | Rutgers--The State University      | 26                                    |
| 5          | Case Western Reserve University    | 19                                    |
| 6          | University of Chicago              | 17                                    |
| 7          | University of Pittsburgh           | 9                                     |
| 8          | University of California, Berkeley | 6                                     |
| 9          | Indiana University                 | 6                                     |
| 10         | University of Southern California  | 5                                     |
| 11         | Florida State University           | 2                                     |
| 12         | University of Minnesota            | 2                                     |
| 13         | University of Texas                | 2                                     |
| 14         | University of Wisconsin            | <u>2</u>                              |
| Total      |                                    | 202                                   |
| Mean       |                                    | 14.42                                 |
| Mode       |                                    | 40                                    |
| Median     |                                    | 30                                    |

enough number of students successfully engaged in the dissertation process to provide the collegiate/academic atmosphere of discussion and competition.

Over the ten-year period of this study, the increased production of dissertations noted by Cohen<sup>4</sup> is supported by the gradual rise noted for each year. Although the productive years 1963 through 1967 had an annual average of 19 dissertations, the annual number rises almost dramatically in 1969 and 1970. An explanation for the marked increase of dissertations appearing in the field in 1969 and 1970 may be, in part, found in the increased money available from the federal government to support doctoral study in library and information science. Originally allocated in 1965, the money grants for periods of three years should have provided for increased numbers of dissertations to appear in 1968 when, in fact, the number fell. Perhaps, the time required for a doctoral dissertation in the field of library and information science is longer than the supposed three years. If this is true, then the increased number of dissertations appearing in 1969 and later may be attributed to continued government subsidy for study at this level.

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<sup>4</sup>Nathan M. Cohen and others. Library Science Dissertations: 1925-1960. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1963. (Office of Education Bulletin OE 15044, 1963, No. 38), p. 109.

TABLE 2

NUMBERS OF DISSERTATIONS WRITTEN AND ACCEPTED AT  
AMERICAN UNIVERSITIES HAVING ALA APPROVED  
MASTERS DEGREE PROGRAMS, 1961-1970, BY  
YEAR OF ACCEPTANCE

| Year   | Number Accepted |
|--------|-----------------|
| 1961   | 15              |
| 1962   | 10              |
| 1963   | 19              |
| 1964   | 17              |
| 1965   | 18              |
| 1966   | 24              |
| 1967   | 19              |
| 1968   | 17              |
| 1969   | 26              |
| 1970   | <u>38</u>       |
| Total  | 202             |
| Mean   | 20.2            |
| Mode   | 17.19           |
| Median | 18              |

Bibliographic citations to non-English language materials were not included in the data base. This exclusion reduces by 10 the mean average number of citations per dissertation but the reduction is not significant because the majority of the dissertations do not use sources in languages other than English. Only 14 percent or 28 of the dissertations in this study made citations to foreign language materials; in eight instances the citations were to but a single work. The only dissertations which were significantly affected by the exclusion were the dissertation by

Ting,<sup>5</sup> whose bibliography included 639 citations to Chinese language entries but only to 28 English language entries, and the dissertation by Gardner,<sup>6</sup> whose bibliography of 136 items included 126 citations in foreign languages.

The subject matter of doctoral dissertations in library and information science covers a wide range of topics. The Eyman<sup>7</sup> listing of dissertations contains 275 different subject headings for dissertations written between 1930 and 1972. Such close classification does not permit generalization. This study, with 202 dissertations written between 1961 and 1970, groups the dissertations into 10 broad categories by Type of Library studied or by the central focus of the dissertation. This category is designated Topic:

1. GENERAL: biographies and those dissertations which had either wide application in many of the categories or those dissertations not fitting into any of the remaining 9 categories.

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<sup>5</sup>Lee-Hsia Hsu Ting. "Government Control of the Press in Modern China, 1900-1949." (Ph.D. dissertation, University of Chicago, 1969.)

<sup>6</sup>Richard K. Gardner. "Education for Librarianship in France: An Historical Survey." (Ph.D. dissertation, Western Reserve University, 1968.)

<sup>7</sup>David H. Eyman. Doctoral Dissertations in Library Science. (Ann Arbor, Michigan: Xerox University Microfilms, 1973), pp. 15-17.

2. SCHOOL LIBRARIES: those dissertations which related to either elementary school or high school libraries, or both.

3. INFORMATION SCIENCE: those dissertations which related to information science and were identified as such or those dissertations which utilized mathematical and quantitative techniques more common to information scientists than to librarians.

4. ACADEMIC LIBRARIES: those dissertations which related to all aspects of higher education.

5. LITERATURE STUDIES: those dissertations which related to the literature of countries or by individuals and which are not related to library or information science in a direct manner. Bibliographic research with library implications and/or applications would not be included in this category.

6. PUBLIC LIBRARIES: those dissertations which related to all aspects of public libraries and/or public library networks.

7. LIBRARY EDUCATION: those dissertations which related to the education and training of persons for work in libraries or in information centers.

8. SPECIAL LIBRARIES: those dissertations which related to all aspects of special libraries and special librarianship.

9. HISTORY OF BOOKS, LIBRARIES AND LIBRARIANSHIP: those dissertations which related to historical topics with the exception of biography which is considered general in nature.

10. STATE LIBRARIES: those dissertations which related to all aspects of state libraries. Within these 10 categories, the dissertations were grouped into 10 subcategories using as a base the loose classification developed by Cohen. This subcategorization is by Type of Service or by Area of Activity investigated. This subcategory is designated Activity. The Activity subcategories are:

- A. General Background Studies, History, Biography
- B. Organization and Administration
- C. Resources
- D. Readers Services, Use and User Studies
- E. Technical Processes, Documentation Studies, Information Retrieval Systems
- F. Personnel and Training
- G. International, Comparative and Foreign Library Science
- H. Methods of Research, Evaluation of Research in Libraries
- I. Models and Hypothetical Construction
- J. Other Services and Activities

After the dissertations were grouped by the Topic and by the Activity investigated, each bibliographic citation

within the dissertations was copied onto cards. The physical characteristics of the English language material cited in the entry were classed into the following 20 subcategories. This categorization is designated Form:

1. Monographs, books and pamphlets
2. Journals
3. Published proceedings of conferences or societies
4. Academic writings such as term papers or class notes
5. Report literature identified with report numbers
6. Correspondence and letters
7. Theses or dissertations
8. Unpublished materials; typewritten materials
9. Mimeographed or multilithed materials
10. State Documents (for Canada and India, Provincial documents)
11. United States Federal documents or publications of central governments
12. Interviews; telephone conversations
13. Miscellaneous materials including university series, state office of education series, irregular series
14. Archival materials cited as coming from archives
15. Newspapers
16. Laws and Statutes
17. Annual continuations such as World Almanac but not including library annual reports
18. Court cases

19. Audio-visual materials including tapes, records and films

20. Patents, both United States and foreign

Possibly some duplication exists between categories 6 (Correspondence and Letters) and 14 (Archival Materials) but the classification by Form was dependent upon the manner in which the author of the dissertation cited his materials. The lack of uniformity in citing correspondence which may have been obtained from archives and in citing correspondence was recognized and resolved by categorizing the materials as the authors had cited them and not as the author of this present study might interpret them. The twentieth category (Patents) did not occur in the dissertations studied as a pilot project and did not appear as a type of citation in dissertations other than the one by Smith<sup>8</sup> at the University of Chicago. The 50 patents cited constitute a very small group and are not significant within this study as will be shown in Chapter III.

The 20,298 individual citations were then key-punched onto Hollerith cards for eventual analysis by computer. The sequence of data on the card identified:

1. The school producing the dissertation
2. The dissertation by number in this study

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<sup>8</sup> Richard Daniel Smith. "The Nonaqueous Deacidification of Paper and Books." (Ph.D. dissertation, University of Chicago, 1970.)

3. The Form of material cited
4. The date of publication of the citation
5. The Topic of the dissertation, i.e., the Type of Library studied or the central focus of the dissertation
6. The Activity of the dissertation, i.e., the Type of Service or Area of Activity investigated in the dissertation
7. The country of publication
8. The title of the journal cited if the citation were a journal (to conserve card space, the journals were numbered and the numbers used to represent the titles)
9. The author's last name and initials
10. The title of the citation

The citations were thus transferred to Hollerith cards and then to the computer tape.

In order to sort and analyze the data, the computer utilized (an RCA at Concordia College, River Forest, Illinois) required that all the data be copied directly from the cards to the tape. Then, using programs developed for this study by the Computer Center at Concordia College, and the prepared programs of the Statistical Package for the Social Sciences,<sup>9</sup> the data were sorted and analyzed.

The computer was programmed to produce, first, a frequency count by authors cited and, second, a frequency

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<sup>9</sup>Norman Nie and others. Statistical Package for the Social Sciences. (New York: McGraw-Hill Book Company, c. 1970.) Also referred to as SPSS.

count by journals cited. Appropriate cross-tabulations were then produced using SPSS. The statistical computations were all produced by the computer programming.

The 202 dissertations produced 20,298 citations with a range of number of citations cited per dissertation from 7 to 408 citations. The mean number of citations was 100.4.

The results of the sorting and analysis of the data with such patterns of citation as were identified are described in Chapter III. Summary tables of the computer frequency counts are presented in the Appendices.

### CHAPTER III

#### CITATIONS IN DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970: AN ANALYSIS OF THE DATA

The data produced by the computer analysis of the 20,298 bibliographic citations which are the base of this study are analyzed here using three approaches: a) the data are considered as a whole and analyzed from a macro-viewpoint; b) the data produced by the several schools are considered as separate bodies of data; and c) the data are considered in the light of the several classifications described in Chapter II.

##### A. The Data from a Macro-viewpoint

In several instances, the totals of data do not add up to 20,298 because of computer errors although the original data fed to the computer contained only eight (8) cards which were rejected by the computer. These eight cards were corrected and the computer thus supplied with 100 percent of the bibliographic citations made by the 202 authors<sup>1</sup> of the dissertations involved in this study,

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<sup>1</sup>A complete list of the 202 dissertations, arranged alphabetically by author, is given in Appendix A.

less, as previously mentioned, the foreign language citations which were excluded. In all instances of "computer error" the number of errors is less than .001 of the total data considered.

In the analysis of the data of this study, a major difficulty is encountered because of the large numbers of citations involved and the dispersion of these citations over a large number of variables. The very small numbers of citations appearing throughout the many variables produce data which are not easily analyzed. The analysis is difficult, not because the data are unwieldy--the Statistical Package for the Social Sciences produced statistics without difficulty--but because the data are complex and within themselves reveal little about the magnitude of the various possible relationships. The data are nominal. Consequently, the statistic used here to indicate the magnitude of the association or relation between the categorical variables is the coefficient of contingency which is a descriptive measure of the association between nominal variables. It has several difficulties discussed by Kerlinger such as the lack of a positive or negative direction, and, most important, it is not provided with tables which readily indicate a level of acceptance or rejection such as are provided for the Chi square. Kerlinger's advice, followed here in this study, in using the coefficient of contingency is to use other figures as

available and then to "interpret the data using all the information."<sup>2</sup> The minimum value of the contingency coefficient is zero and its maximum value, dependent upon the number of categories of variables, approaches, but does not reach 1. The contingency coefficient does not have values which imply direction but such values may, in some instances, indicate direction. The values in this study do not indicate such direction. The cross-tabulations produced by the computer analysis have varying rows and columns. Since contingency coefficients are comparable only if the rows and columns are equal in number it is difficult to compare the resulting statistics. In most instances the maximum possible value of the contingency coefficient approaches 1 because the number of categories for both rows and columns is greater than ten. The calculated maximum contingency coefficient with ten variables is .949.<sup>3</sup>

The interpretation used in this study considers the contingency coefficient roughly similar to a coefficient of correlation wherein +1 would indicate complete

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<sup>2</sup> Fred N. Kerlinger, Foundations of Behavioral Research. 2nd ed. (New York: Holt, Rinehart and Winston, Inc., c. 1973), p. 172.

<sup>3</sup> George A. Ferguson. Statistical Analysis in Psychology and Education. 2nd ed. (New York: McGraw-Hill Book Company, c. 1966), p. 236.

correlation and 0 would indicate no correlation. Consequently, a contingency coefficient of .88, for example, is interpreted as indicating correlation. The interpretation must be rough and used only as an indication but not necessarily statistically significant. The resulting analysis is somewhat less sophisticated but more meaningful. The several hypotheses investigated are repeated throughout for clarity of the several sections.

Analysis by Form of Publication Cited:  
Author Citations

The computer arranged the list of 8,474 individual and corporate authors in descending frequency of citation. Approximately 25 percent (2,109 or .248) of the citations were to works which are cited according to standard citation style manuals as either title entries or anonymous citations. In all instances, if possible, either an individual or a corporate author was identified from standard catalogs. An analysis of the 2,175 anonymous entries does not show significant duplication of titles, although many (71 percent) of such entries do refer to periodical publications. The author frequency count shows that only 2,419 authors are cited more than one time. Another way of saying this is that 70 percent of the authors cited in the dissertations studied are cited one time and one time only. Even the first 100 most frequently cited authors

are cited only 14 or more times and the most frequently cited individual author is cited only 71 times. What standard or criterion is to be applied in the determination of a core of significant authors when the data indicate low frequency patterns?

The research literature of library and information science does not provide rules for determining cores of significance. Many writers merely select those authors having the highest citation frequency as significant. In this study 71 citations or .3 of 1 percent would identify the author as significant under such methods for determining significance, since Shera is the individual author most frequently cited. A. E. Cawkell, criticizing a list of significant authors published by G. Salton, compiled a list of frequently cited authors in information science from the 1972 Science Citation Index using a figure of 10 citations as being necessary for inclusion. Cawkell does not state which part of the index he used but, using the Permuterm Subject Index, one has approximately 2,000 entries which would establish a level of .5 of 1 percent for inclusion in the lowest frequencies of 10 citations. For the more frequently cited authors the frequency percentage rises to an impressive 10.<sup>4</sup>

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<sup>4</sup> A. E. Cawkell. "Where the Action Is and Was in Information Science." Journal of the American Society for Information Science 24 (September-October 1974): 340.

In this study inclusion in a large number of dissertations should also be a qualification for inclusion in the core list of significant authors. Accordingly, a rule of thumb for determining a core of significant authors was constructed wherein inclusion would be determined by the authors attaining either one percent of the total citations or having been cited in one-fifth of the 202 dissertations.

Although the corporate authors American Library Association (10 percent) and the U.S. Office of Education (1.7 percent) qualify for inclusion they cannot themselves constitute a core group of authors. In the search, then, for a core of significant authors, the hypothesis stating that such core would be identified must be rejected as the third highest citation frequency is a low .3 of 1 percent and no single title is cited by one-fifth or 40 of the dissertations. However, some patterns are apparent in the data.

Within the first 50 most frequently cited authors, certain anomalies exist within the data. Some dissertations depended so heavily upon the works of either one person (e.g., T. S. Eliot)<sup>5</sup> or one corporate author (e.g.,

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<sup>5</sup>Cited by Sr. Robert Mary Drumm. "Johnson, Arnold and Eliot as Literary Humanists." (Ph.D. dissertation, Western Reserve University, 1965.)

Chemical Biological Corporation)<sup>6</sup> that these authors appear in the first 50 cited authors listings when in fact they are cited by one and only one dissertation. The following frequently cited authors were, accordingly, removed from the list of significant authors because they are significant not for the 202 dissertations but for one dissertation only:

|                                 | <u>Number of<br/>Times Cited</u> |
|---------------------------------|----------------------------------|
| Chemical Biological Corporation | 107                              |
| California. University          | 79                               |
| Michigan. (State)               | 72                               |
| Eliot, T. S.                    | 65                               |
| California. (State)             | 57                               |
| Air Force                       | 41                               |
| Garfield, E.                    | 40                               |
| Texas. University               | 40                               |
| Ohio. (State)                   | 38                               |
| Union Theological Seminary      | 34                               |
| Ontario. (Province)             | 29                               |
| Nova Scotia. (Province)         | 26                               |
| Bancroft, H.                    | 25                               |
| Crane, W.                       | 25                               |
| Michigan. University            | 25                               |
| Indiana University              | 24                               |

The resulting list of 50 significantly cited authors is a worthwhile variety of personal and corporate authors.

The single most frequently cited corporate author and the single most frequently cited source was, as was expected, the American Library Association. This is understandable inasmuch as the association is the central spokesman

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<sup>6</sup> Cited by Richard Martin Dougherty. "The Scope and Operating Efficiency of Information Centers as Illustrated by the Chemical-Biological Coordination Center of the National Research Council." (Ph.D. dissertation, Rutgers--The State University, 1963.)

for much of the professional activity within librarianship in both the United States of America and Canada. However, the dispersion of citations within the corporate authorship to the separate divisions within the association diminish the idea of a "monolithic-type" spokesman. The divisions within the American Library Association which account for the largest numbers of citations, in descending order, are

Association of College and Research Libraries  
Library Education Division  
Association of Public Library Trustees  
Public Library Division

The American Association of School Libraries, although an ALA division, is considered separately because it is also associated with the National Education Association.

The second most frequently cited author was also of a corporate nature, viz., the U.S. Office of Education. Regardless of the various corporate author name changes of the office, all such citations were grouped under the corporate authorship of Office of Education. There are two significant titles which appear under this entry: first, the 1876 study of American librarianship which was heavily cited in dissertations dealing with library education,<sup>7</sup> and the Education Directory published by the Office of Education.<sup>8</sup>

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<sup>7</sup> U.S. Office of Education. Public Libraries in the United States, Their History, Condition, and Management. Special Report, Part I (Washington, D.C.: 1876).

<sup>8</sup> U.S. Office of Education. Educational Directory. (Washington, D.C.: 1894-1970). Since 1970, the work has been titled Education Directory.

The third most frequently cited author was the first most frequently cited personal author prominent in the fields of both library science and information science. Although it was not part of an hypothesis that Jesse Hawk Shera himself would be the most frequently cited individual author, it was not surprising that citations would be made to him 71 times. The citations are made from all of the 14 schools and the citations appear in all categories of dissertations. It is, perhaps, significant that many, rather than one or two, of his writings are cited, indicating the universality of his writings and his appeal within the profession. The second most frequently cited individual author was Joseph Wheeler, the noted authority on public libraries. Citations to his works, like those to Shera's, were not confined to a single source though his work on public library administration was the single most frequently cited title by him.<sup>9</sup> The remaining most frequently cited authors were:

Louis Round Wilson and Robert Downs who were cited 46 and 44 times respectively. Both are considered authorities in the field of library science and both have retired from distinguished careers as authors and administrators.

S. R. Ranganathan: Cited 41 times in the data. This individual is normally considered a librarian, but the larger number of citations (21 times) to his works is made by dissertations in information science.

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<sup>9</sup>Joseph L. Wheeler and Herbert Goldhor. Practical Administration of Public Libraries, (New York: Harper and Row, 1962).

**The Library of Congress:** Cited in dissertations from all schools, in all types of libraries studied and in all types of activities or services.

**The University of Illinois:** Most frequently cited sources were the Occasional Papers from the library school and general references to the periodical from the library school, Library Trends.

**Canada:** Although 58 citations were made to government reports from the central government of Canada, citations were concentrated upon laws and statutes and were limited to less than half of the schools and to 8 dissertations.

**Census Bureau:** As with the Office of Education, references to the various census publications were frequently made in all of the schools and scattered over many dissertations. The specific censuses referred to vary considerably within the 44 citations made to this corporate author. The 1960 Census was cited 9 times.

**Great Britain:** The 45 citations to publications of the British government vary considerably as to scope when compared with the 58 citations made to Canadian government publications. No categorization could be made to the 45 citations because the dates and types of materials cover no meaningful area or time span. While it might have been expected that citations to the Panizzi report would appear in those dissertations studying technical processes and such citations did appear, they did not appear in any meaningful number.

**New York Public Library:** The 44 citations to the publications of the New York Public Library are predominately (95 percent) made to the annual reports of the directors of the library.

**National Science Foundation:** It is interesting that the 38 citations made to the publications of the National Science Foundation are all made by authors of dissertations in the field of Information Science. It is, perhaps, unfortunate that such citations are limited to 5 dissertations.

**United States Congress:** The 38 citations to publications of the Congress were, predominately, to laws and statutes and only randomly to the hearings or reports and documents.

**National Education Association:** The 31 citations to publications of NEA were made exclusively from dissertations in the school library field. In cases of citations to publications issued by both NEA and ALA, the pattern followed in this study was to identify ALA as the corporate author. Consequently, the total of 31 citations is slightly less than the number of times authors of dissertations referred to NEA.

**UNESCO:** The 24 citations to UNESCO publications are to publications which are largely (80 percent) statistical in nature and the remaining are to publications largely about libraries and bibliographic organization.

**American Association of School Libraries:** This is the only component of the American Library Association to figure prominently enough to be identified as a separate corporate author. The single most frequently cited title from this association is the 1960 Standards for School Libraries which is cited in all of the school library dissertations and is referred to in other dissertations as a model of standards. The standards are cited by 21 dissertations.

**Harvard University:** The 19 citations to Harvard are to annual reports, the library bulletin and to the catalogs of the institution.

The remaining individual authors in the first 50 most frequently cited authors are identified in Appendix B. It is indicative of the diversity of topics covered by library and information science dissertants that citation only 19 times is sufficient to place the individual in this first 50 list. It clearly points out that there is no recognized single authority within the field or within the sub-categorizations of the field. It is informative, but not necessarily conclusive, that while information science constitutes 11.1 percentage of the dissertations within this study, individuals who are considered information scientists make up a

corresponding 12 percent of the first 50 list of authors and that within this 12 percent are the eminent author and historian of science Derek de Solla Price and the eminent librarian and information scientist S. C. Bradford both of whom have titles ranking in the list of most cited titles in this study.

Self-citation is a practice which exists to a limited degree at the 14 schools in this study. In dissertations from Case Western Reserve University, dissertants (Saracevic and Sinclair)<sup>10</sup> made multiple self-citations but the authors do not appear within the first fifty most frequently cited personal authors nor do they appear within the first 100 most frequently cited personal authors. The self-citations are included in the data base as it is apparent that the practice of self-citation can be discounted as being of any importance in information science and library science dissertations.

Citations by writers of dissertations to the publications of their academic advisors or to the writings of the faculties within the schools the authors attended existed to a small degree at all schools. With the exception of Michigan, those institutions producing the largest

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<sup>10</sup>Tefko Saracevic. "On the Concept of Relevance in Information Science." (Ph.D. dissertation, Case Western Reserve University, 1970.) Dorothy Sinclair. "Growth Patterns of Multi-Library Systems for Public Service." (Ph.D. dissertation, Case Western Reserve University, 1970.)

numbers of dissertations produced the largest numbers of dissertations in which the author cited advisors and/or immediate faculty.

Analysis by Form Cited:  
Book Citations

All dissertations included in this study made citations to either books or journals with 1 exception (Stevens, Rutgers).<sup>11</sup> That dissertation cited only "Report Literature" and contained only 8 citations. It was an analysis of 3 systems of information retrieval and was classed (Topic) as an Information Science dissertation investigating (Activity) Technical Processes. It was expected that there would be more such dissertations within the Information Science Topic. The data herein tends to refute the hypothesis about the differences in the materials cited by information scientists as contrasted to those materials cited by library scientists. The hypothesis cannot be rejected out of hand because the numbers of information science dissertations has not grown to comparable numbers with those in library science.

All dissertations in this study (with the exception of Stevens) made citations to books. The computer analysis

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<sup>11</sup>Norman Dennison Stevens. "Comparative Study of Three Systems of Information Retrieval." (Ph.D. dissertation, Rutgers--The State University, 1961.)

of the 20,298 citations revealed that 7,906 citations were to books. Within this category were classed any publications which were cited by the authors of the dissertations as monographs or pamphlets of 60 or more pages. The figure of 7,906 is 38.9 percent of the total number of citations, making this Form of publication not only the almost universally cited Form of publication but also the largest category by Form of publication cited. This was to be expected inasmuch as the citation patterns of social scientists tend to be towards books whereas the journal is predominately cited in science and technology.<sup>12</sup> Library and information science is usually considered to be an aspect of the social sciences. The relatively close percentages of 38.9 for books and 33.0 for journals may suggest that a transition towards journal predominance in library and information science citation patterns is in progress.

There are 3 dissertations which need to be mentioned as they cite books only 1 time each. The dissertations are by Gardner<sup>13</sup> (Case Western Reserve), Roxas<sup>14</sup> (Pittsburgh)

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<sup>12</sup> Maurice B. Line. "Information Requirements in the Social Sciences," in Proceedings of the Conference on Access to Knowledge and Information in the Social Sciences and Humanities. (Flushing, New York: Queens College Press, 1974), p. 150.

<sup>13</sup> Richard Kent Gardner. "Education for Librarianship in France: An Historical Survey." (Ph.D. dissertation, Western Reserve University, 1968.)

<sup>14</sup> Savina A. Roxas, "Library Education in Italy, An Historical Survey, 1870-1969." (Ph.D. dissertation, University of Pittsburgh, 1970.)

and Stevenson<sup>15</sup> (Indiana). Gardner and Roxas are studies in "International, Comparative and/or Foreign Library Science" (Activity) and relate to Education for Library Science (Topic). They, therefore, can be expected to make frequent references to foreign language materials and they do: Gardner cites 129 foreign language items; Roxas cites 126 foreign language items. Stevenson is an investigation of the German Academic Library (Topic) in the Technical Processes (Activity). He cites 130 foreign language items. These foreign language citations are not counted or analyzed within this study and the data are somewhat skewed accordingly as pertains to these dissertations. In other words, if the foreign language materials were included in the analysis, Gardner, Stevenson and Roxas would cite books in a typical citation pattern.

Analyzing the 20,298 citations by author revealed that 14 personal authors were cited 25 times or more. Although interesting, the numbers do not indicate a core of significant authors, considering that there are 8,487 personal and corporate authors in the study and that 6,068 are cited only one time. An analysis by title of book citation was attempted to determine if more significant results could be obtained.

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<sup>15</sup> Henry Gordon Stevenson. "The Classified Catalogs of German University Libraries, in Theory and Practice, Between 1900-1970." (Ph.D. dissertation, 1970.)

The 7,906 book citations were arranged alphabetically in a descending frequency table. Although some frequently cited authors rank high in both the authors list and in the titles list, the order is changed and 3 authors, Bryan, Bradford, and Siegel, who are not in the top twenty-five most frequently cited authors have titles which are in the top ten most frequently cited titles.

TABLE 3

A COMPARISON OF THE AUTHORS OF THE TEN MOST FREQUENTLY CITED TITLES TO THE MOST FREQUENTLY CITED AUTHORS AS CITED IN DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION

| Author                       | Rank as Cited<br>in<br>Authors List | Rank as Cited<br>in<br>Titles List |
|------------------------------|-------------------------------------|------------------------------------|
| American Library Association | 1                                   | 1 and 2                            |
| Robert Leigh                 | 23                                  | 3                                  |
| Alice Bryan                  | 62                                  | 4                                  |
| Louis Round Wilson           | 8                                   | 5                                  |
| U.S. Office of Education     | 2                                   | 6                                  |
| Guy R. Lyle                  | 18                                  | 7                                  |
| S. C. Bradford               | 39                                  | 8                                  |
| Jesse H. Shera               | 3                                   | 9                                  |
| S. Siegel                    | NA*                                 | 10                                 |

\* NA = Does not appear.

Indeed, Siegel does not even make the list of the 100 most frequently cited authors.

The resulting list of authors is more compact when considered by title. Again, the problem of the very small numbers of citations to specific titles out of the 20,298 citations calls attention to the diversity of the knowledge base of librarianship and yet re-emphasizes the importance within the field of the professional association, the U.S. Office of Education and 5 personal authors. If author rankings in the lists of titles cited and authors cited are added together and divided by 2 to determine a mean average with the lower average indicating greater importance, the resulting order still places the two corporate authors first and arranges the personal authors in an order of relative importance.

TABLE 3-A

PERSONAL AND CORPORATE AUTHORS RANKED BY MEAN AVERAGES FROM AUTHOR AND TITLES LISTS AS CITED IN DOCTORAL DISSERTATIONS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION, 1961-1970

| AUTHOR                          | MEAN AVERAGE |
|---------------------------------|--------------|
| 1. American Library Association | 1            |
| 2. U.S. Office of Education     | 4            |
| 3. Jesse H. Shera               | 6            |
| 4. Louis Round Wilson           | 6.5          |
| 5. Guy R. Lyle                  | 12.5         |
| 6. Robert Leigh                 | 13           |
| 7. S. Bradford                  | 23.5         |

TABLE 4

THE MOST FREQUENTLY OCCURRING TITLES AS CITED IN DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION, IN ORDER OF DESCENDING FREQUENCY

| TITLE, AUTHOR, DATE OF PUBLICATION                                                                                        | NUMBER OF<br>DISSERTATIONS<br>CITING THE TITLE |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| 1. Standards for School Libraries.<br>American Library Association. 1960.                                                 | 25                                             |
| 2. Public Library Service: A Guide.<br>American Library Association. 1956.                                                | 21                                             |
| 3. The Public Library in the United States.<br>Robert Leigh. 1950.                                                        | 18                                             |
| 4. The Public Librarian. Alice Bryan. 1952.                                                                               | 17                                             |
| 5. The University Library. Louis Round<br>Wilson. 1956.                                                                   | 17                                             |
| 6. Public Libraries in the United States,<br>Their History, Condition, and Management.<br>U.S. Office of Education. 1876. | 14                                             |
| 7. Administration of the College Library.<br>Guy R. Lyle. 1961.                                                           | 12                                             |
| 8. Documentation. S. Bradford. 1948.                                                                                      | 12                                             |
| 9. Foundations of the Public Library.<br>Jesse H. Shera. 1949.                                                            | 12                                             |
| 10. Nonparametric Statistics. S. Siegel.<br>1956.                                                                         | 12                                             |
| 11. Scholars Workshop Evolving . . .<br>K. Brough. 1953.                                                                  | 12                                             |
| 12. Building Library Collections. Mary<br>Carter. 1964.                                                                   | 11                                             |

TABLE 4--Continued

| TITLE, AUTHOR, DATE OF PUBLICATION                                                          | NUMBER OF<br>DISSERTATIONS<br>CITING THE TITLE |
|---------------------------------------------------------------------------------------------|------------------------------------------------|
| 13. Training for Librarianship. Sarah Vann. 1961.                                           | 11                                             |
| 14. Training for Library Service. C. C. Williamson. 1925.                                   | 11                                             |
| 15. Dictionary of American Biography. 1936.                                                 | 10                                             |
| 16. Government of the American Public Library. Carelton Joeckel. 1935.                      | 10                                             |
| 17. National Plan for Public Libraries. Carelton Joeckel. 1948.                             | 10                                             |
| 18. Rules for a Dictionary Catalog. C. A. Cutter. 1891.                                     | 10                                             |
| 19. Census of the Population, 1960. U.S. Bureau of the Census. 1960.                        | 9                                              |
| 20. Evaluative Criteria, 1960. National Society for the Study of Secondary Education. 1960. | 9                                              |
| 21. Development of Reference Services. Samuel Rothstein. 1955.                              | 9                                              |
| 22. History of American Magazines. F. Mott. 1938.                                           | 8                                              |
| 23. Information Storage and Retrieval. Joseph Becker. 1963.                                 | 8                                              |
| 24. Little Science, Big Science. Derek de Solla Price. 1963.                                | 8                                              |
| 25. Origins of the American Library. Carl White. 1961.                                      | 8                                              |
| 26. Patterns in the Use of Books . . . Herman Fussler. 1961.                                | 8                                              |

TABLE 4--Continued

| TITLE, AUTHOR, DATE OF PUBLICATION                                               | NUMBER OF<br>DISSERTATIONS<br>CITING THE TITLE |
|----------------------------------------------------------------------------------|------------------------------------------------|
| 27. Practical Administration of Public Libraries. Joseph Wheeler. 1962.          | 8                                              |
| 28. Union List of Serials in Libraries . . . Winifred Gregory. 1943.             | 8                                              |
| 29. The American Public Library. W. Learned. 1924.                               | 7                                              |
| 30. Arsenal of a Democratic Culture. S. Ditzion. 1947.                           | 7                                              |
| 31. Curriculum in Library Schools. E. Reece. 1936.                               | 7                                              |
| 32. History of Printing in America. I. Thomas. 1874.                             | 7                                              |
| 33. Information Indexing. J. Metcalfe. 1957.                                     | 7                                              |
| 34. Library in the School. Lucille Fargo. 1947.                                  | 7                                              |
| 35. Minimum Standards for Public Libraries. American Library Association. 1967.  | 7                                              |
| 36. The Public Library in the Political Process. O. Garceau. 1949.               | 7                                              |
| 37. School Libraries for Today and Tomorrow. American Library Association. 1945. | 7                                              |
| 38. Subject Headings. D. Haykin. 1951.                                           | 7                                              |
| 39. Subject Headings. Julia Pettee. 1946.                                        | 7                                              |
| 40. Textbook on Mechanized Information . . . Allen Kent. 1962.                   | 7                                              |

When the ten most frequently cited titles are categorized by Topic, i.e., by the Type of Library studied or by the central focus of the work, and the results of that categorization compared with the spread of dissertations by Topic, the importance of several titles becomes apparent. Restraint is dictated because of the small number involved, but the citation pattern of the 1960 Standards for School Libraries by 25 dissertants potentially suggests the importance of the work in terms of the method and effect the work has had in the profession.

TABLE 5

THE TEN MOST FREQUENTLY CITED TITLES CATEGORIZED BY TOPIC COMPARED TO THE DISTRIBUTION OF DISSERTATIONS BY TOPIC AS CITED IN DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION

| Title                                 | Title Category<br>by Topic | Dissertation<br>Category by<br>Topic in<br>Percent |
|---------------------------------------|----------------------------|----------------------------------------------------|
| Standards for School Libraries        | 2 (School)                 | 7.9                                                |
| Public Library Service                | 6 (Public)                 | 16.8                                               |
| Public Library in the United States   | 6 (Public)                 | 16.8                                               |
| Public Librarian                      | 6 (Public)                 | 16.8                                               |
| University Library                    | 4 (Academic)               | 14.8                                               |
| Public Libraries in the United States | 6 (Public)                 | 16.8                                               |
| Administration of the College Library | 4 (Academic)               | 14.8                                               |
| Documentation                         | 3 (Information Science)    | 14.8                                               |
| Foundations of the Public Library     | 6 (Public)                 | 16.8                                               |
| Nonparametric Statistics              | 1 (General)                | 16.36                                              |

One-half of the titles in the top ten most frequently cited titles relates to the Topic of public libraries. Perhaps this is an indication that the public librarians are contributing more than their share in terms of methodology, content and scope to the field of library and information science.

It was hypothesized that there would be a clear demarcation between the numbers of citations to books in library science dissertations and in the dissertations in information science. No such demarcation is revealed in the data in terms of the Form of publication cited. In terms of total numbers of citations, there tend to be considerably fewer citations in dissertations of information science but there also tend to be fewer citations in the later dissertations whether classed as library or information science, than in the earlier dissertations.

#### Analysis by Form: Journals

Whereas the citations to personal and corporate authors and to titles was so diversified as to render the analysis and sorting something less than definitive as to the sources of information used by the writers of library and information science dissertations, analysis and sorting by journal citations produced substantial data. All citations to journal articles were identified and coded

TABLE 6

CHARACTERISTICS OF MATERIALS BY FORM OF PUBLICATION CITED  
IN DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-  
1970, AS SUBMITTED TO FOURTEEN LIBRARY SCHOOLS HAVING  
MASTERS. LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON  
ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION, BY  
PERCENT IN DESCENDING ORDER

| Form Cited                                            | Number of Citations | Percent | Cumulative Percent |
|-------------------------------------------------------|---------------------|---------|--------------------|
| 1. Books                                              | 7906                | 38.9    | 38.9               |
| 2. Journals                                           | 6704                | 33.0    | 71.9               |
| 3. Theses/Dissertations                               | 737                 | 3.6     | 75.5               |
| 4. Federal Documents                                  | 735                 | 3.6     | 79.1               |
| 5. Irregular Series, Misc.                            | 685                 | 3.3     | 82.4               |
| 6. State Documents                                    | 462                 | 2.4     | 84.8               |
| 7. Archival Materials                                 | 462                 | 2.4     | 87.2               |
| 8. Unpublished Materials<br>Other Than Correspondence | 424                 | 2.1     | 89.3               |
| 9. Correspondence and Letters                         | 401                 | 1.9     | 91.2               |
| 10. Conference Proceedings                            | 398                 | 1.9     | 93.1               |
| 11. Interviews                                        | 261                 | 1.3     | 94.4               |
| 12. Laws, Statutes                                    | 260                 | 1.3     | 95.7               |
| 13. Report Literature                                 | 258                 | 1.3     | 97.0               |
| 14. Newspapers                                        | 232                 | 1.1     | 98.1               |
| 15. Annual Continuations                              | 157                 | 0.7     | 98.8               |
| 16. Court Cases                                       | 74                  | 0.4     | 99.2               |
| 17. Mimeographed or<br>Multilithed Pamphlets          | 61                  | 0.3     | 99.5               |

TABLE 6--Continued

| Form Cited                 | Number of Citations | Percent | Cumulative Percent |
|----------------------------|---------------------|---------|--------------------|
| 18. Patent Literature      | 50                  | 0.3     | 99.8               |
| 19. Audio-Visual Materials | 17                  | 0.1     | 99.9               |
| 20. Academic Writings      | 14                  | 0.1     | 100.0              |

prior to the entire body of citations being placed on the computer tapes. The titles of the individual journals were numbered as they occurred in the data. Since the numbering of the Journals for title identification purposes only began with a pilot project, some of the 1,107 journal titles included in the journals cited list do not occur in this final study. When the titles were compared with the Union List of Serials,<sup>16</sup> 21 titles were identified as duplicates and, consequently, the total number of journals cited reduced to 1,046. There were 6,704 citations to those 1,046 journals within the dissertations. Citations to journals accounted for 33.0 percent of the total number of 20,298 citations. The first 100 most frequently cited journals are listed with their frequencies in Appendix K. The intellectual quality of the journals cited varies

<sup>16</sup>Edna Brown Titus, editor. Union List of Serials in Libraries of the United States and Canada. (New York: H. W. Wilson Company, 1965.)

TABLE 7

JOURNAL CITATIONS IN DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970, AS SUBMITTED TO FOURTEEN LIBRARY SCHOOLS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION, GROUPED INTO ZONES BY THE TECHNIQUES OF BRADFORD

| Zone | Total Citations<br>Per Zone | Number of Titles<br>Per Zone | Bradford<br>Multiplier |
|------|-----------------------------|------------------------------|------------------------|
| 1    | 662                         | 1                            |                        |
| 2    | 730                         | 2                            | 2                      |
| 3    | 670                         | 3                            | 1.3                    |
| 4    | 644                         | 6                            | 2                      |
| 5    | 663                         | 14                           | 2.3                    |
| 6    | 662                         | 29                           | 2.1                    |
| 7    | 666                         | 62                           | 2.1                    |
| 8    | 665                         | 116                          | 1.9                    |
| 9    | 654                         | 278                          | 2.4                    |
| 10   | 688                         | 535                          | 1.9                    |

considerably from prestigious journals such as the Journal of Documentation to relatively obscure titles such as Quill and Quire. As with the author frequency analysis, it was necessary to remove from the lists those heavily cited journals which were cited in only 1 dissertation.

The journals cited in the 202 doctoral dissertations in this study numbered 1,046 and the number of citations made was 6,704. When analyzed by a Bradford distribution,

the journals appear to divide into Bradfordian zones but the absence of a firm middle core strongly suggests that insofar as these dissertations are concerned, the data do not represent a body of research literature as it is traditionally understood. Two problems exist with the middle journals: 1) There exists an anomaly in the second zone which may be accounted for in part by the dis-similar publication frequencies of the journals and 2) the number of journals jumps widely from 6 in the fourth zone to 14 in the fifth zone.

Although appearing to be Bradfordian, the journal distribution is influenced by citations to 520 journals 1 time each and the appearance rather quickly of journals from outside the subject field of library and information science. At least, the journal data in this study do not correspond closely to the journal distributions found in other studies such as that of Donohue<sup>17</sup> in a sub-set of the literature of information science (social sciences) or by Maurstad<sup>18</sup> in art history (humanities). In both of

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<sup>17</sup>Joseph Chaminade Donohue. "A Method for the Analysis of a Subject Literature." (Ph.D. dissertation, Case Western Reserve University, 1970.)

<sup>18</sup>Betty Louise Maurstad. "Concerning Structural Properties in the Literature of the Art Historian--A Bibliometric Study." (Ph.D. dissertation, Case Western Reserve University, 1972.)

these studies the journal literature demonstrated the clustering of a Bradfordian distribution and, hence, acted as a body of research literature.

The 100 most frequently cited journals in doctoral dissertations in library and information science between 1961 and 1970, with the frequency of citation indicated are given in Appendix K.

The semi-monthly journal Library Journal was the most frequently cited journal by an overwhelming number of citations. There were 662 citations made to this journal as compared to the second most frequently cited journal which attained a frequency of 398. The second most frequently cited journal was the monthly American Libraries Bulletin. The citation frequency of these two journals is to be expected. Although the citations to both journals are similarly spread between citations to articles and citations to news announcements, some patterns of citation did occur: citations to announcements of an official policy of the American Library Association in the ALA Bulletin would be followed by or accompanied by an article in the Library Journal giving much the same information and accompanying editorial opinion. The suspicion of bibliographic padding thus exists when 2 articles give the same information and both are cited. On the other hand, it is possible that authors including both citations were merely

attempting to provide a total survey of the literature or to show differences in text. Although not completely absent from dissertations in information science, citations to the ALA Bulletin and the Library Journal are of less frequency. Conversely, the most frequently cited information science journal American Documentation is rarely cited in library science dissertations. The 2 most frequently cited journals are cited in the dissertations of all schools.

The third most frequently cited journal is College and Research Libraries, an ALA publication concerning the activities of the Association of College and Research Libraries. For about ten years there has been an attempt to change the quality of articles within College and Research Libraries by concentrating more on articles of research and development and less on the opinion or news type articles. In an attempt to emphasize this change, in 1969 the news sections of College and Research Libraries became a separate publication.<sup>19</sup> The high frequency showing of this journal is not in line with the fact that only 14.8 percent of the dissertations are uniquely concerned with

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<sup>19</sup> CRL News began with Number 1, March, 1966, as ACRL News, A Supplement to College and Research Libraries. Since 1969, the publication has been issued separately.

Academic Libraries. The journal appears to have uses beyond the clientele to which it is addressed.

The fourth most frequently cited journal is Library Quarterly, a general publication considered to have a more scholarly, mainly historically oriented, approach to library science, and, within that context, a more fitting type of publication to provide the knowledge base for doctoral dissertations.

The fifth most frequently cited journal is American Documentation<sup>20</sup> which is cited considerably more times than in proportion to dissertations in the areas of information science. Like the ALA Bulletin and Library Journal, the journal carries news of the activities of its association but, more importantly, it is the source of innovative and expansive articles derived from the research framework which surrounds information science as an activity.

The sixth most frequently cited journal in the study is Library Trends, a quarterly with each issue treating one topic and giving an over-view of the topic, related

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<sup>20</sup> American Documentation, 1950-1969, has been succeeded by the Journal of the American Society for Information Science, 1970-. American Documentation was published by the American Documentation Institute. It was the successor of the Journal of Documentary Reproduction, 1938-1943, a publication of the American Library Association which had been terminated because of World War II.

research, and trends within the profession on that topic. The publication, then, is an excellent source from which to begin a literature search within the field and it is to this end that many of the citations to the journal are put.

The seventh most frequently cited journal in the study is Special Libraries which is like American Documentation in that it is a specialized publication for its sponsoring association. It does include news, many "how to do it" or educational articles and it is a roughly parallel publication for ALA Bulletin directed towards the interests of special librarians.

The eighth most frequently cited journal in the study is News Notes of California Libraries. News Notes of California Libraries is not one of the important journals of American librarianship. The occurrence of this journal within the top ten most frequently cited journals is an anomaly due mainly to the many citations made to the journal in the dissertations coming from Berkeley and UCLA. It is cited in one dissertation from the University of Michigan.

The ninth most frequently cited journal is Library Resources and Technical Services which is a serious, technical, professional journal. Although it contains some news material concerning the various professional associations for catalogers and classifiers, the publication is consistently the only reliable source of information and articles on the detailed and complex aspects of

cataloging and classification in the United States. As with American Documentation, the appearance of Library Resources and Technical Services among the top 10 most frequently cited journals shows a disciplinary concern with important, serious publications.

The tenth most frequently cited journal, Science, is the first of forty titles in the 100 most frequently cited which is not directly connected with library and information science. It is a combination of popular science articles, news, and a fast announcement medium for research, predominately but not entirely in the medium-hard sciences--physics research is announced elsewhere.

It is interesting to note that, despite the absence of a firm Bradfordian distribution, most of the basic journals in the field of library and information science are included in the top 100 journals. A singular omission is Information Storage and Retrieval.

In summary, within the citations to the 100 most frequently cited journals, there appears a total of 4,562 citations or 68.04 percent of the total number of journal citations. This indicates the relative unimportance of the remaining 946 journal titles as sources of information for writers of dissertations in library and information science. Yet, looking at the individual titles of the journals in the "unimportant" group reveals such titles as Library Technology Reports and NEA Research Bulletin as

being the basic sources of information in certain areas of library and information science.

Analysis by Form: Theses or Dissertations

A basic assumption of this study is that the dissertation or thesis is a product of research. It was therefore assumed that initially all of the 202 authors in this study would have recourse to dissertations in the field of library and information science. It was hypothesized that citation patterns to dissertations would be revealed and that those more quantitative dissertations, i.e., information science dissertations, would possibly cite dissertation literature more frequently. The hypothesis was not substantiated by the data analyzed by the computer. Although 737 citations were made to dissertations, this number amounts to only 3.6 percent of the total number of citations. The category does rank as the third most frequently cited Form but the generally low number of citations involved clearly substantiates the conclusions of Boyer<sup>21</sup> that the dissertation is not widely distributed and is overlooked by scholars as a source of information.

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<sup>21</sup> Calvin James Boyer. The Doctoral Dissertation as an Information Source: A Study of Scientific Information Flow. (Metuchen, New Jersey: Scarecrow Press, 1973.)

Analysis by Form:  
Federal Documents

Citations to publications of the central governments, primarily those of the United States of America, constituted a total of 735 citations or 3.6 percent of the total 20,298 items cited. The categorization was significant only in those dissertations relating to library science history or to education for librarianship in that references were frequently made to the 1876 survey of libraries in the United States. Thus, it develops that this single document is one of the more frequently cited titles in this study and its corporate author, the U.S. Office of Education, is the second most frequently cited author. It becomes somewhat of a curiosity to say that the 1876 survey of public libraries in the United States is one of the more important knowledge bases within the field of library and information science and logic forces a different viewpoint.

Analysis by Form: Irregular  
Series, Miscellaneous

This category was created to distinguish serial materials which clearly are not journal (periodical) publications. Later, the category was expanded to include university series not cited as journals and to include all miscellaneous, undifferentiated materials not easily categorized elsewhere. The resulting 685 citations to this type of

material then constitute a potpourri of different materials. The percentage of 3.3 makes this "catch-all" category the fifth most frequently cited Form of material and demonstrates the wide variety of Forms of material utilized as the information sources for dissertations in library and information science. Miscellaneous Forms of material was cited in dissertations produced at 10 of the 14 schools. This Form of material is cited in all categories by Topic studied with the exceptions of State Libraries and the History of Books, Librarians and Libraries. The miscellaneous Form of materials is cited in all categories by Activity excepting the Models category. Although the exception is interesting there does not seem to be any explanation for the omission. Since the irregular journals from state departments of education were eventually categorized as Miscellaneous Materials it was expected that a preponderance of school library dissertations would appear in this category. Such was not evidenced.

Analysis by Form:  
State Documents

State documents were cited in the dissertations from 9 out of 14 schools. The category was initially distinguished as a separate category from federal documents primarily because of the relatively uniform methods established for retrieving federal documents whereas state

document retrieval is haphazard at best. The 462 citations made to this category constitute 2.4 percent of the total number of citations in the study. State documents appeared in the dissertations on all Topics with the exception of Special Libraries. In the same manner that those dissertations dealing with Models as an Activity did not cite any of the miscellaneous materials, this is an interesting omission. State documents are cited in all categories by Activity which is studied with the exceptions of Models and Other. The Other category is a miscellaneous category and it may well be that state documents are directed to more specific areas of interest. The omission of state documents from the Models category is not unexpected in that modelling as a methodology does not appear in state documents as listed in recent issues of the Monthly Checklist of State Documents.<sup>22</sup> A model is much closer to a creation in the humanities than to the study of naturally occurring phenomena in any field. A model is not the Baconian type of science production. If the State Documents and the Federal Documents categories are combined for a total of 6.0 percent, documents of one type or another constitute the third largest category of materials cited within the 202 dissertations. This is an indication

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<sup>22</sup> Monthly Checklist of State Publications. 1972-1973.

of the importance of documents as sources of information for dissertations in the field of library and information science.

Analysis by Form:  
Archival Materials

Only 50 percent of the schools in this study produced dissertations which made citations to archival material. Michigan produced 14, or 36 percent of the 38 dissertations citing archival material. Also, 24, or 63 percent of the 38 dissertations are in the General Background Studies, History, Biography area of Activity. In other words, if one is doing a dissertation on an historical subject, it is to be expected that some of the data base will be found in archival collections. Archival material is cited in studies of all types of libraries excepting information science and is cited in studies of Activity in all areas excepting Models and Other.

Analysis by Form: Unpublished  
Materials

In this category were placed citations to Unpublished Materials other than Correspondence, other than term papers or academic writings such as class notes, and other than mimeographed materials. The total number of 424 citations constitutes 2.1 percent of the total of 20,298 citations analysed. The category of Unpublished Materials

appears in the dissertations produced at 8 of the 14 schools in this study. It also appears in 77 of the 202 dissertations or in 38 percent of all the dissertations. Unpublished Material is cited in all types of libraries studied and is cited in studies of all areas of interest excepting Models which is probably to be expected.

Analysis by Form: Conference  
Proceedings

Writers of the dissertations in this study made citations to Conference Proceedings a total of 398 times or 1.9 percent of the total body of data. Within this categorization were included the Conference Proceedings of the American Library Association and other similar proceedings. In terms of the total body of data, such categorization is so small in percentage that no conclusion can justifiably be drawn. No distinction can be made between the writers of dissertations in library science and the writers of dissertations in information science in making citations to this type of material. In some instances, writers, for example Monroe (Columbia),<sup>23</sup> would make a citation to the conference proceedings and to the report of that conference within a journal thus creating,

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<sup>23</sup>Margaret Ellen Monroe. "The Evolving Conception of Adult Education in Three Public Libraries: 1920-1955." (Ph.D. dissertation, Columbia University, 1962.)

essentially, two references to the same data or information, one an archival or legal documentary source and the other a summary of the former.

Analysis by Form: Correspondence  
and Letters

With the category of Correspondence and Letters was included all the citations to letters written to or by the writers of the dissertations and all citations to correspondence not covered by the Archival classification. The computer analysis showed that 401 citations or 1.9 percent of the total number of 20,298 citations were to letters. While the attempt might be made here to show that there exists some type of Invisible College among library and information scientists, the attempt is resisted because of the relatively small percent of citations appearing in this category. Even the coupling of this category and Interviews (1.3 percent) produces only 3.2 percent of the total citations which is not significant. The typical citation in this category was that of the writer of the dissertation citing a letter written to him by an eminent authority within the field. The letter to which the citation is made is thus not part of the open literature--that general body of information to which the researcher has access. The citations to correspondence appear among the dissertations from all of the schools with no apparent

tendency for one school to emphasize this kind of exchange of information.

Analysis by Form:  
Report Literature

It was expected that within the category of Report Literature there would be few of this type of citation in those dissertations in library science and many such citations would occur within the dissertations in information science. Such was not the result at all. Report Literature constituted only 258 total citations or 1.3 percent. (One dissertation [Stevens]<sup>24</sup> cited only Report Literature.) Instead of an omission of this type of citation from library science dissertations, the computer analysis shows that 56 or 27.7 percent of all the dissertations made citations to the Report Literature. Although not large in total percentage (1.3 percent) the appearance of this type of citation in over one-fourth of the dissertations from nearly two-thirds of the schools suggests that this unrefereed and somewhat dubious Form of publication is still important for writers of library and information science dissertations.

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<sup>24</sup>Norman Dennison Stevens. "Comparative Study of Three Systems of Information Retrieval." (Ph.D. dissertation, Rutgers--The State University, 1961.)

Analysis by Form:  
Other

The remaining categories constitute a total of only 6.9 percent of the total number of citations analyzed in this study. With the exception of the category of Patent Literature, which appears in only 1 dissertation (Smith, Chicago),<sup>25</sup> the dispersion of "Other" citations throughout the schools, types of libraries and Activity studied is uniform and provides no patterns of significant interest. The category of Audio-visual material deserves some mention because it is not a category normally associated with scholarly research. As it is, Audio-visual materials were cited by only 4 of the 202 dissertations. Only .1 percent of the citations analyzed were to this kind of material which was usually film or recorded material. Sinclair (CWRU)<sup>26</sup> is unique in that 16 percent of the citations in her dissertation are to Audio-visual materials.

B. The Data as Developed From Each of the Fourteen Schools

The hypothesis herein under consideration stated that citation patterns would not exist among the several

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<sup>25</sup>Richard Daniel Smith. "The Nonaqueous Deacidification of Paper and Books." (Ph.D. dissertation, University of Chicago, 1970.)

<sup>26</sup>Dorothy Sinclair. "Growth Patterns of Multi-Library Systems for Public Service." (Ph.D. dissertation, Case Western Reserve University, 1970).

schools but that when schools were producing dissertations on similar areas of library Activity or on similar types of libraries (Topic) essentially the same citation patterns would be revealed. Two problems developed in conjunction with this hypothesis. First, the numbers of dissertations produced at the schools within this study varies considerably from a high of 40 (Michigan) to a low of 2 at four schools (Florida State, Minnesota, Texas, Wisconsin). Patterns are difficult to determine with such dispersion. Secondly, dispersion of dissertations within the schools themselves is so broad as to preclude analysis in depth. The numbers of dissertations written at each school and the time span of those dissertations was discussed in Chapter II of this study. For the following analysis, two cross-tabulations were developed and are the basis for comments about the focus of the dissertations written at the several schools.

Analysis of Dissertations from the Schools,  
1961-1970, by Topic Studied

Do dissertants at the various schools tend to study certain Topics as identified in this study (pp. 19-21)? To attempt an answer, a frequency table showing the schools listed by Topic (Appendix C) was the basis for a SPSS cross-tabulation. The contingency coefficient developed was .78 which, within the measures of this study, indicates a significant correlation. A major problem,

however, exists in that production of dissertations at the following schools is so low as to prevent any large pattern from developing: University of California, University of Southern California, Florida State University, Indiana University, University of Minnesota, University of Texas, and the University of Wisconsin. Thus, 7 of the schools are outside the possibility of being included in meaningful conclusions. The remaining 7 schools, using the contingency coefficient of .78, do tend to study certain Topics and the question is answered positively in the following manner:

1. Case Western Reserve University School of Library Science dissertants study all of the Topics identified in this study excepting the catch-all General category. The largest number of dissertations for the period of this study, 1961-1970, concern Information Science centers and Literature Studies. It is interesting to note that Literature Studies have decreased with time.
2. University of Chicago Graduate Library School dissertations are predominately in the areas of General Studies and Literature Studies. There is a wide dispersion of Topics studied with Information Science and Academic Libraries being third and fourth most frequently studied.
3. University of Illinois Graduate School of Library Service dissertation Topics are predominately in the General Studies category but Academic Libraries, Literature Studies and Public Libraries are significant focal Topics.
4. University of Michigan School of Library Science dissertations are significantly concentrated during the period of this study, 1961-1970, on the Topic of Literature Studies. No other Topic is studied at Michigan to figure in this categorization.

5. Rutgers, The State University Graduate School of Library Service dissertations are predominately concerned with the Topic of Public Libraries. The Topic Information Science is the second most frequently studied Topic.
6. Columbia University School of Library Service dissertants study most of the Topics identified in this study but there is a significant concentration on the Topic of Public Libraries. The General category is the second ranking Topic and Information Science is third.
7. Pittsburgh University Graduate School of Library and Information Science dissertations are equally spread among only five Topics. Omitted during the period of this study, 1961-1970, are State Libraries, Academic Libraries, Literature Studies, Special Libraries and History of Books.

Analysis of Dissertations From the Schools by  
Activity Investigated

The section of data analysis above showed that dissertants at the various library schools tended to write dissertations concerned with certain Topics. Is there a similar correlation between the schools and the Activity investigated? Again, a frequency table (Appendix D) and a cross-tabulation were constructed and, again, the similar problem of low productivity impedes the ascertainment of a definite pattern. However, the contingency coefficient produced by comparing the output of the schools against the area of library Activity investigated was a high .748 indicating a correlation probably beyond the area of chance and indicating a pattern. Again, the same 7 schools must be dropped from the analysis because of low productivity. The remaining 7 schools do tend to produce dissertations

which study certain areas of Activity and the question is answered positively for the period, 1961-1970:

1. Case Western Reserve University School of Library Science dissertations cover all of the areas of Activity but there is a concentration upon Background Studies and upon Technical Services. The Technical Services concentration is understandable when one considers that this classification covers Documentation Studies and Retrieval Systems which are closely related to Information Science.
2. University of Chicago Graduate Library School dissertations concentrate upon Background Studies and upon Technical Services. The distinction between the dissertations at the University of Chicago and at Case Western Reserve University is at two levels: 1) Chicago dissertations in Background Studies are more closely historical than those at Case Western Reserve University and 2) Chicago dissertations in Technical Services are more concerned with traditional classification studies and the library card catalog than those at Case Western Reserve University which are more properly studies into the processes employed in Information Science.
3. University of Illinois Graduate School of Library Service dissertations are concentrated into 4 areas of Activity: 1) Background Studies, 2) Organization and Administration, 3) Resources, and 4) Technical Services. The dispersion is roughly similar for all areas but there is a somewhat larger concentration on the Background and Historical Studies which also includes Biographical Studies. Several of the dissertations in Biography at the University of Illinois are considered noteworthy additions to the literature.
4. University of Michigan School of Library Science dissertations are concentrated into two areas of Activity: Background Studies and Resources. All Literature Studies (a Topic classification) were classed as Resources by Activity and the heavy concentration in this category is to be expected.
5. Rutgers, The State University Graduate School of Library Service dissertations are predominately in the 2 Activities of Readers Services, first, and Technical Services, second. Thus, Rutgers is the only school to show a concentration in the area of Readers Services for the period of this study, 1961-1970.

6. Columbia University School of Library Service dissertations are concentrated into 4 Activities: 1) Background Studies, 2) Technical Services, 3) Personnel and Training, and 4) Resources. The concentration in Personnel and Training is a reflection of the number of dissertations which study library science teaching methods, history and organization.
7. University of Pittsburgh Graduate School of Library and Information Science dissertations are concentrated in only the Activity of Technical Services. Pittsburgh is the only school to show any kind of concentration with the Activity Methods of Research but the concentration is not statistically high.

The major import of this section of analysis is that all schools, with Pittsburgh being the notable exception, concentrate their dissertations upon the General Background Studies (Activity) which also includes the Historical and Biographical approaches. To some extent, the Topics and Activities investigated by dissertants may depend largely upon the interests of dissertation advisors rather than needs of the profession. This, however interesting, was not a focus of this study.

#### C. The Data From the Classifications of This Study

The various categories of materials created for this study have been discussed in previous chapters. An hypothesis was stated that those dissertations concerned with different Topics would show different patterns in citing Forms of publications. The following analysis is an expansion of the hypothesis to consider the possible relationships of Topics, Activities and Forms.

Analysis Comparing the Topic  
Studied with the Form Cited

An hypothesis was stated that those dissertations concerned with different Topics (e.g., School Libraries, Public Libraries, Academic Libraries, etc.) would show different patterns in citing the various Forms of publications. That is to say, it was hypothesized that those dissertations about School Libraries (Topic) would make citations to State Documents (Form) for information about school library laws whereas those dissertations about other Topics would not make such citations.

The 202 dissertations, grouped into 10 broad categories by Topic studied and arranged by the Form cited produced a cross-tabulation which was so vast as to be virtually meaningless when the Chi square analysis is used. The data clearly indicated that a contingency coefficient would be the only meaningful statistical measure.

Accordingly, an SPSS derived contingency coefficient of .516 is based upon the appropriate frequency table (Appendix F).

If .969 is used to indicate complete correlation, the data for this comparison indicate some correlation but not to any significant extent. The correlation suggests that dissertations related to the different Topics will make the following citation patterns by Form:

General Studies: citations will be made to all Forms of publications excepting patent literature.

School Libraries: citations will be made primarily to books, journals and dissertations. (The hypothesis that school library dissertations would cite state documents heavily was not supported.)

Information Science: citations will be primarily to journals and books.

Academic Libraries: citations will be primarily to books and journals.

Literature Studies: citations will be primarily and overwhelmingly to books with journal citation being a low second. Citations to other Forms of publications will be minimal.

Public Libraries: citations will be primarily to books and journals.

Library Education: citations will be primarily to journals with the other categories represented in small percentages.

Special Libraries: no particular pattern of citations will exist although journals will be cited in somewhat larger numbers than books.

History of Books, Libraries and Librarians: citations will be primarily to journals and books.

State Libraries: no particular pattern of citations will exist.

The hypothesis relating Topic studied to the Form of publication cited is, then, neither rejected nor confirmed as the correlation apparent above may be somewhat greater than chance but not significantly greater.

Analysis Comparing Form With the  
Activity Investigated

The hypothesis stated that there would be differing patterns of citation by Form among the dissertations concerned with various Activities investigated such as administration, personnel, readers services, models, etc. The hypothesis is closely related to the hypothesis just analyzed above concerning the Topic investigated. The contingency coefficient for this cross-tabulation is .46 which is a minimal value of C and the procedures of analysis used in this study clearly call for the rejection of the hypothesis. The frequency table which is the basis for the cross-tabulation showing no correlation in the citation patterns is in Appendix E.

Analysis by Date of Publication

It was hypothesized that the majority of publications cited by the dissertations in this study would be relatively recent publications with the exceptions of those dissertations treating the Topics of 1) Literature Studies and 2) General Background, History, Biography. The computer analysis by Date of Publication did not fit into a cross-tabulation from SPSS. The dispersion of the data over time covered 750 years as the earliest date of publication cited was 1219 A.D. The most recent date of publication cited was 1970. Ten citations from dissertations

written at Case Western Reserve University were listed as being "In Press." (The works cited have subsequently appeared in print.) A small number of citations in this study, 765 or 3.6 percent, were listed without a date of publication. No attempt was made to locate or verify any dates of publication. The dispersion of citations by date of publication cited is given in Table 8.

The modal date of publications cited was 1963 which accounted for 821 citations or 4.04 percent of the total number of 20,298 citations in this study. Although, using percentages, the data indicate that the dissertations in library and information science make citations to materials covering a long time span, there is an attention given to recency which is interesting but, at this time, inconclusive. For example, 86.9 percent of the citations are to materials published in the twentieth century, yet Melvil Dewey and C. A. Cutter, both usually thought of as late nineteenth-century writers are listed in the first 100 most frequently cited authors (Appendix B).

The hypothesis concerning date of publication is barely substantiated and not by statistical analysis but by simple percentage. Relating the use of the journal literature in the field of library and information science to date of publication might produce conclusions of value for the entire research area of the field but this study

TABLE 8

20,298 BIBLIOGRAPHICAL CITATIONS GROUPED BY DATES OF PUBLICATION AS CITED IN DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970, AS SUBMITTED TO FOURTEEN LIBRARY SCHOOLS HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION

| Date               | Frequency of<br>Number of<br>Citations | Frequency<br>Percent | Cumulative<br>Number of<br>Citations |
|--------------------|----------------------------------------|----------------------|--------------------------------------|
| No Date            | 765                                    | 3.7                  | 765                                  |
| In Press           | 10                                     |                      | 775                                  |
| -1850              | 522                                    | 2.6                  | 1,297                                |
| 1851-1900          | 1,354                                  | 6.8                  | 2,651                                |
| 1901-1910          | 767                                    | 3.7                  | 3,418                                |
| 1911-1920          | 794                                    | 3.9                  | 4,212                                |
| 1921-1930          | 1,089                                  | 5.4                  | 5,301                                |
| 1931-1940          | 1,765                                  | 8.6                  | 7,066                                |
| 1941-1950          | 2,389                                  | 11.8                 | 9,455                                |
| 1951-1960          | 5,341                                  | 26.4                 | 14,796                               |
| 1961-1970          | 5,502                                  | 27.1                 | 20,298                               |
| Modal Year<br>1963 | 821                                    | 4.04                 |                                      |

was concerned only with the dissertation and the manner in which writers of dissertations use the literature (knowledge base).

Analysis Comparing the Topic Studied  
and the Activity Investigated

The hypothesis stated that those dissertations concerned with the same Topic would be concerned with the same Activities and that the citation patterns would be similar. In other words, there would be a pattern which would indicate that School Library studies would investigate the same Activity such as Administration and that there would be a resulting citation pattern to the same Form of publications or, perhaps, the same publications. The previous section of this study relating to Form of publication clearly indicates that dissertants do not cite the same publications to a significant degree.

The frequency table which is the basis for the cross-tabulation comparing citations by Topic studied by citations by Activity investigated is contained in Appendix G. The contingency coefficient for the data is .731, indicating, within the measures of this study, a high degree of correlation. This is 1 of 2 areas to indicate significant correlation. The frequencies of citations classed by Activity are given in Appendix H and the citations classed by Topic studied are given in Appendix I.

Based on the data of this cross-tabulation, it is possible to identify the following citation patterns:

Those studies which concern all libraries were classed in this study as General. The citation pattern indicates that General studies will tend to be in two categories of almost equal strength: 1) General Background Studies, History, Biography and 2) Technical Processes. Thus, the data in this study indicate that the backgrounds of a significant part of the profession have not yet been thoroughly investigated.

School Library studies will also tend to concern themselves about equally with 2 Activities, viz., 1) General Background Studies and 2) Resources. This relationship is accounted for by the classification technique utilized which placed School Library investigations (Topic) which utilized the 1960 ALA Standards for School Library Programs<sup>27</sup> in the Activity of Resources.

Information Science dissertations will tend to be investigations into 1) the Technical Processes Activity which would include classification, the development of indexing systems, automation and information retrieval systems. The only other area of Activity with which Information Science (Topic) dissertations will be concerned will be 2) Readers Services.

Academic Library studies will be concerned most frequently with 1) General Background, History, Biography but the area of Activity of 2) Organization and Administration, as well as 3) Resources, will show up prominently.

Literature Studies will be concerned overwhelmingly with 1) General Background, History, Biography. Since these dissertations do not deal with library Activities, per se, there will be many Activity classifications wherein Literature Studies (Topic) will not appear.

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<sup>27</sup> American Library Association. Standards for School Library Programs. (Chicago: American Library Association, 1960.)

Public Library studies will tend to reflect three Activities of Librarianship, viz., 1) Organization and Administration, 2) Readers Services and 3) General Background, History, Biography.

Library Education studies will be predominately classed as concerned with the Activities of 1) Personnel and Training but there will be a considerable number of dissertations concerned with General Background, History, Biography.

Special Libraries dissertations will be in 2 prominent Activity categories: 1) General Background, History, Biography and 2) Organization and Administration.

History of Books, Libraries and Librarians as a Topic category will tend to produce dissertations in 2 Activities which are 1) General Background, History, Biography, which is to be expected, and 2) Technical Processes which is not to be expected as there are many more Activities to be investigated from an historical point of view.

State Library studies will tend to fall into the Activities of either 1) General Background, History, Biography or into 2) International, Comparative and Foreign Library Service.

A comparison of the number of dissertations by Activity as used in this study is given in Table 9.

The data from the classifications of this study are meaningful when certain restrictions are kept in mind:

- 1) this examination of citations from doctoral dissertations in library and information science is limited to a 10 year period, 1961-1970; 2) an assumption of the study is that the doctoral dissertation is, ipso facto, research; and
- 3) the data relate only to the doctoral dissertation as one aspect of the field of library and information science.

TABLE 9

DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970,  
FROM LIBRARY SCHOOLS HAVING MASTER LEVEL PROGRAMS  
ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE  
AMERICAN LIBRARY ASSOCIATION, BY ACTIVITY, IN  
DESCENDING ORDER BY PERCENT

| Activity                                                                            | Number of<br>Dissertations | Percent     |
|-------------------------------------------------------------------------------------|----------------------------|-------------|
| 1. General Background, History,<br>Biography                                        | 55                         | 27.2        |
| 2. Technical Services, Documenta-<br>tion Studies, Information<br>Retrieval Systems | 40                         | 19.8        |
| 3. Resources                                                                        | 25                         | 12.4        |
| 4. Readers Services, Use, User<br>Studies                                           | 23                         | 11.4        |
| 5. Organization and Administration                                                  | 20                         | 9.84        |
| 6. Personnel and Training                                                           | 18                         | 8.9         |
| 7. International, Comparative<br>and Foreign Library Science                        | 8                          | 4.0         |
| 8. Other Services and Activities                                                    | 5                          | 2.5         |
| 9. Methods of Research, Evaluation<br>of Research and Libraries                     | 4                          | 1.98        |
| 10. Models                                                                          | <u>4</u>                   | <u>1.98</u> |
| Totals                                                                              | 202                        | 100.0       |

With these restrictions evidenced, then, the classifications of data tend to reveal the following:

- 1) The correlation evident between Topic and citation pattern by Form is not unexpected excepting that writers of dissertations on the Topic of History of Books, Libraries and Librarianship do not utilize archival materials to any great degree. The data herein show a Form pattern more to published sources.
- 2) The lack of correlation between Activity and Form defies what the library profession assumes to be true in practice, viz., that there are core literatures in the field. For example, the Activity of Technical Processes, Documentation Studies, Information Retrieval Systems incorporates the traditional practices of cataloging and classification. With cataloging and classification the core "classics" do not surface in this data. Perhaps, the core "classics" are too basic to be cited as research bases but, more the possibility, the quantity of citations for this study from dissertations merely obscures patterns within the separate Activities.
- 3) The limited numbers of Activities investigated under each of the several Topics is, perhaps, a reflection of the kinds of specialization evidenced within the field and within the library schools many of which now offer courses specializing in both Activities and Topics as listed in Chapter II.

## CHAPTER IV

### CITATIONS IN DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE, 1961-1970--CONCLUSIONS AND AREAS FOR FURTHER STUDY

A basic premise of this study has been that the doctoral dissertation is a mirror of the research productivity of library and information science. The following conclusions of the analysis, then, are true insofar as the basic premise is true.

#### Conclusions

The field of library and information science was considered from the point of view of their joint appearance in those library schools giving the doctorate. Therefore, it was not possible to differentiate between the 2 sub-fields and the attempt was only made in a few instances where the possibility presented itself. All of the statistical measures applied tended to integrate rather than to differentiate.

A core of highly cited and, hence, significant authors is not clearly identified in the data, although there tend to be 14 personal authors who are cited 25 or

more times. When titles of books are considered the data are considerably more compact but still in such small numbers as to preclude conclusions of an important nature. There is no single core of literature in this data which is cited at a rate beyond that which might be expected in random use.

Differences in citation patterns did not become evident when citation patterns in dissertations which appeared to be purely in library science were compared with those patterns in purely information science dissertations. The 2 sub-fields cite similar materials in approximately the same patterns.

Patterns of journal citation do not essentially differ between dissertations in library science and dissertations in information science. The Bradford distribution, when applied to the journals in this citation analysis, demonstrates the absence of a core of research journals in the same sense as demonstrated by certain subjects such as petroleum.<sup>1</sup> This absence deals a strong blow to the idea that the literature cited in dissertations and analysed in this study constitutes a single, homogeneous, identifiable body of research literature. The question

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<sup>1</sup>P. F. Cole. "A New Look at Reference Scattering." Journal of Documentation 18 (June 1962): 58-64.

logically arises as to what, indeed, the literature cited in doctoral dissertations in library and information science does constitute. It constitutes a heterogeneous body of research identifiable as a conglomerate of complementary subjects, currently subsummed under the general label "Library and Information Science." The unity of the field is more apparent than its diversity in that there are relationships between the several categories, but these relationships do not come together into a single pattern. This study has shown the difficulty of making an application of Bradford's techniques to such a heterogeneous mass of data.

Shera and others have repeatedly emphasized the inter-disciplinarity of library and information science. This introduces into the journal literature disparate items (or titles) which are atypical when analyzed by techniques normally applied to traditional disciplines. Then, such atypical patterns as demonstrated in the non-Bradfordian distribution in this study are to be expected. The inter-disciplinarity of the library and information science field would lead one to conclude that non-library science or non-information science journals appear quickly enough in the highly cited lists so as to indicate that citations to these journals are typical. In addition, the field tends to follow citation patterns in the social sciences and humanistic disciplines wherein citation is

traditionally made to books or monographs, though in some areas of the field, this may be undergoing change.

The dissertation was not a significant item in the total number of citations involved in this study. The dissertation ranked third most frequently cited category and the hypothesis about the importance of the dissertation as a research source of information is sustained from an ordinal point of view. Only two of the remaining categories were above 4 percent of the total literature.

Citation patterns were not evident in those dissertations concerned with different Topics when contrasted with the Forms cited, nor were patterns evident between those dissertations concerned with different Activities and the different Forms cited. However, a reasonably significant correlation was found to exist in those dissertations concerned with different Topics and the Activities studied.

No hypothesis was developed in the study to compare or to contrast the 14 library schools' dissertations with each other with respect to any of the 30 different categories considered in this study. However, significant correlations, within the limits of this study, did become evident and indicate that there is a reasonably good chance that persons writing dissertations at the several schools are likely to concern themselves with a particular type of library (Topic) and with a particular area of

library operations (Activity). This may be the first indication from a statistical viewpoint that there is a kind of specialization among the several library schools. Further research should indicate whether this pattern is due to the school or to the interests of the individual professors in it.

Finally, the absence of a single core of research literature and the absence, for the most part, of citation patterns within this study does not so much suggest that library and information science has no intellectual base as it does suggest that the intellectual or knowledge base of the field is not universally recognized as a specific set of individual titles. The existence of a weak core of significant authors does reinforce the possibility of a knowledge base represented in the authors' many different writings. The distinct lack of a core literature for each sub-field speaks against the possibility of the paired sub-fields being separate fields in themselves.

#### Areas for Further Study

This citation analysis of the information sources in library and information science dissertations is the first application of citation analysis techniques to the literature of the paired sub-fields as a unit. It is limited to a recent 10 year period and to those dissertations produced at 14 library schools having programs at the master's degree level which are accredited by the

Committee on Accreditation of the American Library Association. It is also one of the first attempts to apply citation methods to an area where the major part of the data base was in book form. Although further studies into the knowledge bases of the 2 sub-fields might apply the same types of analysis to other periods of time or to the dissertations from non-ALA library schools, the probability is that there will not be significant differences. The pattern of citation may be different from those schools which are information science schools using a definition of information science differing from that found in the ALA library schools.

The citation analysis using the Bradfordian distribution shows that the body of journal literature analyzed does not correspond to those distributions found in more traditional disciplines. As mentioned above the expected middle core is absent. Further study in the area of the use of journals by library and information science researchers is needed to determine whether dissertations form an atypical body of literature or whether the dissertations are, in fact, representative of the journal usage throughout the paired sub-fields, or whether there is a more fundamental sub-division of the field. The overlap in categories suggests that the latter may be the situation in this study.

The measures established in this study to identify a core literature or a core group of authors were based on a comparison with citation analysis studies using considerably fewer numbers of citations. The measures did not reveal either a core literature or a core group of authors because of the low frequencies of citation. However, considering the entire list of citations, many of the important or distinguished authors of the field are present. Further study in the methods used to determine core literatures or core groups of authors is needed. Particularly helpful would be studies using the dissertations of other fields to determine whether the dissertations of a field constitute for the field a typical body of literature. Some consideration should also be given to the methods established for inclusion in lists of significant or core literatures and authors when the data contain large numbers as in this study.

Further study in the professional and theoretical knowledge areas of library and information science is needed to identify and to develop the intellectual areas of the profession as opposed to further investigations in those areas reflecting the knowledge that the librarian/information scientists need to know in order to function.

This study was not concerned with the quality of dissertations nor of the individual topics addressed in those dissertations other than to categorize them in a

general tabulation. However, the data appear to support the essentially gloomy view of doctoral dissertations in library and information science as described by Shera.<sup>2</sup>

On the brighter side, the range of library and information science is so broad that it affects all disciplines and all subjects, and this study certainly bears out Shera's other contention to the effect that multi-disciplinarity is of prime significance in this area.

Further study needs to be made into the curricular backgrounds of the doctoral programs which produce the dissertations. What really is the curriculum of a doctoral program? To what extent does it differ from the programs at the first professional degree level? To what extent is the curriculum for doctoral programs in library and information science the product of the individual school's concerns as expressed by its faculty rather than as expressed by an intellectual constraint from within the field?

Shera, writing about technical schools, maintains that "the professions have come to realize that skill, technology, even specialized knowledge, are not enough . . ."<sup>3</sup>

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<sup>2</sup> Jesse H. Shera. "The Doctoral Program and Research." Chapter 12 in The Foundations of Education for Librarianship. (New York: Becker and Hayes, Inc., c. 1972), pp. 398-421.

<sup>3</sup> Jesse H. Shera. "The Search for a Format." Chapter 8 in The Foundations of Education for Librarianship. (New York: Becker and Hayes, Inc., c. 1972), p. 229.

However, there is hope. The library schools with doctoral programs seem to be attempting to lead the profession away from empiricism and vocationalism--this is evident in those 7 schools producing doctorates in quantity. But, as yet, there is no body of knowledge that can be called a separate discipline within the field. Disconformity and unconformity are rather obvious from this study of dissertations written between 1961 and 1970. There is an intellectual vacuum to be filled by basic research studies.

The literature of the field of library and information science is almost evenly divided between book (monographic) literature and journal articles as in the social sciences. New methodologies are needed to handle studies of the subject literatures of these disciplines. It is possible that with a different approach, the literature or knowledge base of the field may be shown to be more cohesive than has been demonstrated here. One may surmise that a basic criterion of such a new approach would be the ability to handle both book and journal literature in a single distribution pattern.

## BIBLIOGRAPHY

- American Library Directory, 1970-71. 27th ed. New York: R. R. Bowker Company, 1970.
- Boyer, Calvin James. The Doctoral Dissertation as an Information Source: A Study of Scientific Information Flow. Metuchen, New Jersey: Scarecrow Press, 1973.
- Cawkell, A. E. "Where the Action Is and Was in Information Science." Journal of the American Society for Information Science 24 (September-October 1974): 340.
- Cohen, Nathan M., and others. Library Science Dissertations: 1925-1960. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1963. (Office of Education Bulletin OE 15044, 1963, No. 38.)
- Cole, P. F. "A New Look at Reference Scattering." Journal of Documentation 18 (June 1962): 58-64.
- Davis, Richard A. "Theses and Dissertations Accepted by Graduate Library Schools: 1966 Through December 1967." Library Quarterly 38 (October 1968): 442-452.
- Dissertation Abstracts. Volumes 21-29. (November 1961-June 1969).
- Dissertation Abstracts International. Volume 30, Volume 31, Nos. 1-11. (1970-May 1971).
- Donohue, Joseph Chaminade. "A Method for the Analysis of a Subject Literature." Ph.D. dissertation, Case Western Reserve University, 1970.
- Eyman, David H. Doctoral Dissertations in Library Science. Ann Arbor, Michigan: Xerox University Microfilms, 1973.
- Fenichel, Carol Jane. "Citation Patterns in Information Science." M.A. thesis, Drexel Institute of Technology, 1969.

- Ferguson, George A. Statistical Analysis in Psychology and Education. 2nd ed. New York: McGraw-Hill Book Company, c.1966.
- Fussler, Herman Howe. "Characteristics of the Research Literature Used by Chemists and Physicists in the United States." Ph.D. dissertation, University of Chicago, 1948.
- Gardner, Richard K. "Education for Librarianship in France: An Historical Survey." Ph.D. dissertation, Western Reserve University, 1968.
- Graydon, Margaret Kesling. "Graduate Theses Accepted by Library Schools in the United States, 1960-63." Library Quarterly 33 (October 1963): 334-349.
- Humeston, Jr., E.J. "Theses and Dissertations Accepted by Graduate Library Schools: 1958 Through December 1969." Library Quarterly 40 (October 1970): 423-433.
- Kerlinger, Fred N. Foundations of Behavioral Research. 2nd ed. New York: Holt, Rinehart and Winston, Inc., c.1973.
- Line, Maurice B. "Information Requirements in the Social Sciences." Proceedings of the Conference on Access to Knowledge and Information in the Social Sciences and Humanities. Flushing, New York: Queens College Press, 1974, pp. 146-158.
- Maurstad, Betty Louise. "Concerning Structural Properties in the Literature of the Art Historian--A Bibliometric Study." Ph.D. dissertation, Case Western Reserve University, 1972.
- Monroe, Margaret Ellen. "The Evolving Conception of Adult Education in Three Public Libraries: 1920-1955." Ph.D. dissertation, Columbia University, 1962.
- Nie, Norman, and others. Statistical Package for the Social Sciences. New York: McGraw-Hill Book Company, c. 1970.
- Roxas, Savina A. "Library Education in Italy, An Historical Survey, 1870-1969." Ph.D. dissertation, University of Pittsburgh, 1970.

- Saracevic, Tefko. "On the Concept of Relevance in Information Science." Ph.D. dissertation, Case Western Reserve University, 1970.
- Schlachter, Gail A., and Dennis Thomison. Library Science Dissertations, 1925-1972. Littleton, Colorado: Libraries Unlimited, 1974.
- Shera, Jesse H. The Foundations of Education for Librarianship. New York: Becker and Hayes, Inc., 1972.
- Sinclair, Dorothy. "Growth Patterns of Multi-Library Systems for Public Service." Ph.D. dissertation, Case Western Reserve University, 1970.
- Smith, Richard Daniel. "The Nonaqueous Deacidification of Paper and Books." Ph.D. dissertation, University of Chicago, 1970.
- Stevens, Norman Dennison. "A Comparative Study of Three Systems of Information Retrieval." Ph.D. dissertation, Rutgers--The State University, 1961.
- Stevenson, Henry Gordon. "The Classified Catalogs of German University Libraries, in Theory and Practice, Between 1900-1970." Ph.D. dissertation, 1970.
- Tai, Tse-Chien. "Professional Education for Librarianship." Ph.D. dissertation, State University of Iowa, 1925.
- Ting, Lee-Hsia Hsu. "Government Control of the Press in Modern China, 1900-1949." Ph.D. dissertation, University of Chicago, 1969.
- Titus, Edna Brown, editor. Union List of Serials in Libraries of the United States and Canada. New York: H. W. Wilson Company, 1965.
- U.S. Library of Congress. Monthly Checklist of State Publications. Washington, D.C.: Government Printing Office, 1910-
- Upton, Eleanor S. "A Guide to the Sources of Seventeenth-Century English History in Selected Reports of the Royal Commission on Historical Manuscripts." Ph.D. dissertation, University of Chicago, 1930.

Webster's Third New International Dictionary of the English Language, Unabridged. Springfield, Mass.: G. & C. Merriam & Co., 1961.

Winger, Howard W. "Graduate Theses Accepted by Library Schools in the United States, 1959-60." Library Quarterly 30 (October 1960): 274-279.

\_\_\_\_\_. "Graduate Theses Accepted by Library Schools in the United States, 1960-61." Library Quarterly 32 (January 1962): 62-70.

\_\_\_\_\_. "Graduate Theses Accepted by Library Schools in the United States, 1963-1964." Library Quarterly 34 (October 1964): 387-395.

\_\_\_\_\_. "Theses and Reports Accepted by Graduate Library Schools in the United States and Canada: 1964-65." Library Quarterly 36 (January 1966): 38-47.

**APPENDIX A**

**DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE,  
1961-1970, FROM LIBRARY SCHOOLS HAVING MASTERS LEVEL PRO-  
GRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF THE  
AMERICAN LIBRARY ASSOCIATION, ALPHABETICALLY BY AUTHOR**

## APPENDIX A

| Author, Title of Dissertation                                                                                                                                                                                                       | Date | School                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 1. Abe, Donald Kazuhito<br>Data for Managerial Control.                                                                                                                                                                             | 1963 | Berkeley                |
| 2. Aman, Muhammad Muhammad<br>Analysis of Terminology, Form and<br>Structure of Subject Headings in<br>Arabic Literature and Formulation<br>of Rules for Arabic Subject Headings.                                                   | 1968 | Pittsburgh              |
| 3. Anderson, Le Moyne W.<br>Delinquent Borrowers in an<br>Academic Library.                                                                                                                                                         | 1970 | Illinois                |
| 4. Andrews, Charles<br>Thematic Guide to Selected American<br>Poetry about the Second World War.                                                                                                                                    | 1967 | Case Western<br>Reserve |
| 5. Artandi, Susan Szerdahelyi<br>Book Indexing by Computer.                                                                                                                                                                         | 1963 | Rutgers                 |
| 6. Axeen, Marina Esther<br>Teaching the Use of the Library<br>to Undergraduates: An Experimental<br>Comparison of Computer-Based Instruc-<br>tion and the Conventional Lecture<br>Method.                                           | 1967 | Illinois                |
| 7. Badr, Anwar Aly<br>International Cooperation in<br>Scientific Documentation and Its<br>Implication Within the Functional-<br>istic Approach to International<br>Relations with Special Reference to<br>India, USSR, UAR and USA. | 1963 | Case Western<br>Reserve |
| 8. Barker, Dale Lockard<br>Characteristics of the Scientific<br>Literature Cited by Chemists of<br>the Soviet Union.                                                                                                                | 1966 | Illinois                |

- |     |                                                                                                                                                    |      |                        |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------|
| 9.  | Beard, John Robert<br>Canadian Provincial Libraries.                                                                                               | 1965 | Columbia               |
| 10. | Bedsole, Danny Travis<br>Library Systems in Large Industrial<br>Corporations.                                                                      | 1961 | Michigan               |
| 11. | Bendix, Dorothy<br>Labor Unions and Public Library<br>Service.                                                                                     | 1965 | Columbia               |
| 12. | Berner, William Sherman<br>The Influence of Pre-Voting Activity<br>on the Outcome of Selected Library<br>Bond Referendums.                         | 1970 | Illinois               |
| 13. | Bertram, Sheila Joan Kelly<br>The Relationship Between Intra-<br>Document Citation Location and<br>Citation Level.                                 | 1970 | Illinois               |
| 14. | Bishop, Olga Bernice<br>Publications of the Government of<br>the Province of Canada, 1841-1867.                                                    | 1962 | Michigan               |
| 15. | Bobinski, George Sylvan<br>Andrew Carnegie's Role in American<br>Public Library Development.                                                       | 1966 | Michigan               |
| 16. | Boll, John Jorg<br>Library Architecture, 1800-1875:<br>A Comparison of Theory and Buildings,<br>with Emphasis on New England College<br>Libraries. | 1961 | Illinois               |
| 17. | Bolvin, Boyd Micael<br>A Survey of Mechanization and<br>Automation in Large University<br>Libraries.                                               | 1970 | Southern<br>California |
| 18. | Braden, Irene Andrea<br>The Undergraduate Library on the<br>University Campus.                                                                     | 1967 | Michigan               |
| 19. | Bunge, Charles Albert<br>Professional Education and<br>Reference Efficiency.                                                                       | 1967 | Illinois               |
| 20. | Carroll, Carmal Edward<br>The Professionalization of Education<br>for Librarianship, with Special<br>Reference to the Years, 1940-1960.            | 1969 | Berkeley               |

- |     |                                                                                                                                                                                                                                                                                                                              |      |            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 21. | Carroll, Dewey Eugene<br>Newspaper and Periodical Production<br>in Countries of Europe, 1600-1950:<br>A Quantitative Historical Analysis<br>of Patterns of Growth.                                                                                                                                                           | 1966 | Illinois   |
| 22. | Caruso, Dorothy Elaine Furnier<br>An Experiment to Determine the<br>Effectiveness of an Interactive<br>Tutorial Program, Implemented on<br>the Time Sharing IEM System 360<br>Model 50 in Teaching a Subject<br>Oriented User to Formulate Inquiry<br>Statements to a Computerized On-<br>Line Information Retrieval System. | 1969 | Pittsburgh |
| 23. | Cazden, Robert Edgar<br>The Free German and Free Austrian<br>Press and Book Trade in the United<br>States, 1923-1950, in the Context<br>of German-American History.                                                                                                                                                          | 1965 | Chicago    |
| 24. | Childers, Thomas Allen<br>Telephone Information Service in<br>Public Libraries: A Comparison of<br>Performance and the Descriptive<br>Statistics Collected by the State<br>of New Jersey.                                                                                                                                    | 1970 | Rutgers    |
| 25. | Chow, David Kuo-Kien<br>A Geometric Approach to Coding<br>Theory with Application to<br>Information Retrieval.                                                                                                                                                                                                               | 1968 | Illinois   |
| 26. | Churchwell, Charles Darrett<br>Education for Librarianship in the<br>United States: Some Factors which<br>Influenced its Development Between<br>1919-1939.                                                                                                                                                                   | 1966 | Illinois   |
| 27. | Clark, Harry<br>The Production, Publication, and<br>Sale of the Works of Hubert Howe<br>Bancroft.                                                                                                                                                                                                                            | 1969 | Berkeley   |
| 28. | Clarke, Robert Flanders<br>The Impact of Photocopying on<br>Scholarly Publishing.                                                                                                                                                                                                                                            | 1963 | Rutgers    |

- |     |                                                                                                                                                                                                                                                 |      |          |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|
| 29. | Comaromi, John Phillip<br>A History of the Dewey Decimal<br>Classification: Editions One<br>Through Fifteen, 1876-1951.                                                                                                                         | 1969 | Michigan |
| 30. | Coughlin, Violet Louise<br>Factors in the Development of Larger<br>Units of Public Library Service in<br>Canada, with Particular Reference to<br>the Provinces of Prince Edward Island,<br>Nova Scotia and New Brunswick.                       | 1966 | Columbia |
| 31. | Crawford, Susan Young<br>Informal Communication Among<br>Scientists in Sleep and Dream<br>Research.                                                                                                                                             | 1970 | Chicago  |
| 32. | Crowley, Terence<br>The Effectiveness of Information<br>Service in Medium Size Public<br>Libraries.                                                                                                                                             | 1968 | Rutgers  |
| 33. | Dain, Phyllis<br>The New York Public Library: A<br>History of Its Founding and Early<br>Years.                                                                                                                                                  | 1966 | Columbia |
| 34. | De Hart, Florence Elizabeth<br>The Application of Special Library<br>Services and Techniques to the<br>College Library.                                                                                                                         | 1964 | Rutgers  |
| 35. | De Koster, Lester Ronald<br>Living Themes in the Thought of<br>John Calvin: A Bibliographical<br>Study.                                                                                                                                         | 1964 | Michigan |
| 36. | de los Santos, Jr. Alfredo Guadalupe<br>Book Selection Factors and the Nature<br>of the Junior College Library.                                                                                                                                 | 1965 | Texas    |
| 37. | Denis, Laurent-Germain<br>Academic and Public Librarians in<br>Canada: A Study of the Factors<br>which Influence Graduates of Canadian<br>Library Schools in Making Their First<br>Career Decision in Favor of Academic<br>or Public Libraries. | 1970 | Rutgers  |
| 38. | Dickinson, Donald Charles<br>A Bio-Bibliography of Langston<br>Hughes, 1920-1960.                                                                                                                                                               | 1964 | Michigan |

- |     |                                                                                                                                                                                                      |      |                         |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 39. | Donohue, Joseph Chaminade<br>A Method for the Analysis of a<br>Subject Literature.                                                                                                                   | 1970 | Case Western<br>Reserve |
| 40. | Dougherty, Richard Martin<br>The Scope and Operating Efficiency<br>of Information Centers as Illus-<br>trated by the Chemical-Biological<br>Coordination Center of the National<br>Research Council. | 1963 | Rutgers                 |
| 41. | Drumm, Sister Robert Mary<br>Johnson, Arnold and Eliot as<br>Literary Humanists.                                                                                                                     | 1965 | Case Western<br>Reserve |
| 42. | Earnshaw, Helen Kerr<br>Student Assistant Programs in<br>Selected Junior College Libraries.                                                                                                          | 1961 | Southern<br>California  |
| 43. | Edgar, Neal Lowndes<br>A History and Bibliography of<br>American Newspapers, 1810-1820.                                                                                                              | 1965 | Michigan                |
| 44. | El-Benhawy, Mohamed Amin<br>The Suez Canal: A Descriptive<br>Bibliography.                                                                                                                           | 1964 | Michigan                |
| 45. | El-Hadi, Mohamed Mohamed<br>Arabic Library Resources in the<br>United States: An Investigation<br>of their Evolution, Status and<br>Technical Problems.                                              | 1964 | Illinois                |
| 46. | El-Hagrasy, Saad Mohammed<br>The Teacher's Role in Library Service:<br>An Investigation and Its Devices.                                                                                             | 1961 | Rutgers                 |
| 47. | Elliott, Clark Albert<br>The American Scientist, 1800-1863:<br>His Origins, Career and Interests.                                                                                                    | 1970 | Case Western<br>Reserve |
| 48. | Elliott, Roger William<br>A Model for a Fact Retrieval System.                                                                                                                                       | 1965 | Texas                   |
| 49. | Ennen, Robert Campion<br>The <u>Gradus ad Parnassum</u> .                                                                                                                                            | 1961 | Michigan                |
| 50. | Evans, Charles Whitney<br>The Attitudes of Adults Toward the<br>Public Library, and Their Relation-<br>ship to Library Use.                                                                          | 1969 | Berkeley                |

- |     |                                                                                                                                                                          |      |                         |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 51. | Evans, Gayle Edward<br>The Influence of Book Selection<br>Agents upon Book Collection Usage<br>in Academic Libraries.                                                    | 1969 | Illinois                |
| 52. | Farley, Richard Alan<br>The American Library Executive:<br>An Inquiry into His Concepts of<br>the Functions of His Office.                                               | 1967 | Illinois                |
| 53. | Fasick, Adele<br>A Comparative Linguistic Analysis of<br>Books and Television for Children.                                                                              | 1970 | Case Western<br>Reserve |
| 54. | Ferguson, John Duncan Alexander<br>The Sociology of Information<br>Organizations.                                                                                        | 1966 | Columbia                |
| 55. | Flener, Jane Gardner<br>A History of Libraries in Tennessee<br>Before the Civil War.                                                                                     | 1963 | Indiana                 |
| 56. | Forrest, Earl Arwin, Jr.<br>A History and Evaluation of English<br>Historical Annuals for 1701-1720 and<br>1739-1743.                                                    | 1961 | Illinois                |
| 57. | Fortin, Clifford Charles<br>The Relation of Certain Personal and<br>Environmental Characteristics of<br>School Librarians to their Life<br>Values and Work Satisfaction. | 1970 | Minnesota               |
| 58. | Friedlander, Janet<br>Physician Use of a Medical Library.                                                                                                                | 1970 | Case Western<br>Reserve |
| 59. | Gambie, Budd Leslie, Jr.<br>Frank Leslie's Illustrated Newspaper,<br>1855-1860: Artistic and Technical<br>Operations of a Pioneer Pictorial<br>News Weekly in America.   | 1963 | Michigan                |
| 60. | Gardner, Richard Kent<br>Education for Librarianship in<br>France: An Historical Survey.                                                                                 | 1968 | Case Western<br>Reserve |
| 61. | Gerulaitis, Leonardas<br>The Venetian Incunabula: Printers<br>and Readers.                                                                                               | 1969 | Michigan                |

- |     |                                                                                                                                                                                    |      |                         |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 62. | Greer, Roger C.<br>The Current United States National<br>Book Bibliography: An Analysis of<br>Coverage with Recommendations for<br>Improvement.                                    | 1964 | Rutgers                 |
| 63. | Goudeau, John Milred<br>Early Libraries in Louisiana: A<br>Study of the Creole Influence (with)<br>Volume II--Source Materials.                                                    | 1965 | Case Western<br>Reserve |
| 64. | Grotzinger, Laurel Ann<br>The Power and the Dignity: Librarian-<br>ship and Katharine Sharp.                                                                                       | 1964 | Illinois                |
| 65. | Grundt, Leonard<br>An Investigation to Determine the<br>Most Efficient Patterns for Provid-<br>ing Adequate Public Library Service<br>to All Residents of a Typical Large<br>City. | 1965 | Rutgers                 |
| 66. | Hagler, Ronald Albert<br>The Selection and Acquisition of<br>Books in Six Ontario Public Libraries<br>in Relation to the Canadian Publish-<br>ing System.                          | 1961 | Michigan                |
| 67. | Hall, Anna C.<br>Selected Educational Objectives for<br>Public Librarians: A Taxonomic<br>Approach.                                                                                | 1968 | Pittsburgh              |
| 68. | Hamadeh, Muhammad<br>Muhammad the Prophet: A Selected<br>Bibliography.                                                                                                             | 1965 | Michigan                |
| 69. | Harmon, Glenn<br>Human Memory as a Factor in the<br>Formation of Disciplinary Systems.                                                                                             | 1970 | Case Western<br>Reserve |
| 70. | Harrar, Helen Joanne<br>Co-operative Storage Warehouses.                                                                                                                           | 1962 | Rutgers                 |
| 71. | Harris, Ira Whitney<br>The Influence of Accessibility on<br>Academic Library Use.                                                                                                  | 1966 | Rutgers                 |
| 72. | Harris, Jessica Lee<br>Subject Headings: Factors Influencing<br>Formation and Choice: with Special<br>Reference to Library of Congress and<br>H. W. Wilson Practices.              | 1969 | Columbia                |

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|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 73. | Heckman, Marlin Leroy<br>Abraham Harley Cassel: Nineteenth<br>Century American Book Collector.                                                                                                         | 1970 | Chicago    |
| 74. | Hendricks, Donald Duane<br>Comparative Costs of Book Processing<br>in a Processing Center and in Five<br>Individual Libraries.                                                                         | 1966 | Illinois   |
| 75. | Heinritz, Fred John<br>Book Versus Card Catalog Costs.                                                                                                                                                 | 1963 | Rutgers    |
| 76. | Heussman, John William<br>The Literature Cited in Theological<br>Journals and its Relation to<br>Seminary Library Circulation.                                                                         | 1970 | Illinois   |
| 77. | Hiatt, Peter<br>Public Library Branch Services for<br>Adults of Low Education.                                                                                                                         | 1963 | Rutgers    |
| 78. | Highfill, William Carl<br>The Relationship of Indexing Depth<br>to Subject Catalog Retrieval<br>Effectiveness.                                                                                         | 1969 | Illinois   |
| 79. | Hines, Theodore Christian<br>The Collectanea as a Bibliographical<br>Tool.                                                                                                                             | 1961 | Rutgers    |
| 80. | Hoage, Alethia Annett Lewis<br>The Library of Congress Classification<br>in the United States: A Survey of<br>Opinions and Practices, with Attention<br>to Problems of Structure and Applica-<br>tion. | 1961 | Columbia   |
| 81. | Holley, Edward Gailon<br>Charles Evans: American Bibliographer.                                                                                                                                        | 1961 | Illinois   |
| 82. | Hooshang, Ebrami<br>Catchword Indexing, Subject Headings<br>and Chain Indexing: The Formulation<br>of Rules for Subject Analysis in Farsi.                                                             | 1970 | Pittsburgh |
| 83. | Houser, Lloyd J.<br>Indices of Effectiveness of Public<br>Library Services: Relationship of<br>Registrants and Financial Support.                                                                      | 1968 | Rutgers    |

- |     |                                                                                                                                                                                                                                         |      |                  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|
| 84. | Huang, Theodore Shih-Shu<br>Efficacy of Citation Indexing.                                                                                                                                                                              | 1967 | Rutgers          |
| 85. | Hutcherson, Ethel Madge<br>The Role of the Public Library in<br>Re-Training People Displaced by<br>Technological Change.                                                                                                                | 1966 | Florida<br>State |
| 86. | Immroth, John Phillip<br>An Analysis of Vocabulary Control in<br>Library of Congress Classification<br>Indexes and Subject Headings and the<br>Formulation of Rules for Chain Index-<br>ing of Library of Congress Classifi-<br>cation. | 1970 | Pittsburgh       |
| 87. | Inada, Hide Ikehara<br>Translations from the Japanese into<br>Western Languages from the 16th<br>Century to 1912.                                                                                                                       | 1967 | Michigan         |
| 88. | Intrama, Navanitaya<br>Some Characteristics of the<br>Literature of Public Administration.                                                                                                                                              | 1968 | Indiana          |
| 89. | Jasenas, Michael<br>History of the Development of the<br>Bibliography of Philosophy.                                                                                                                                                    | 1967 | Columbia         |
| 90. | Jefferson, David Kenoss<br>A Heuristic Programming System.                                                                                                                                                                              | 1969 | Michigan         |
| 91. | Jones, Milbrey Luncford<br>Socio-Economic Factors and Library<br>Service to Students.                                                                                                                                                   | 1964 | Rutgers          |
| 92. | Jones, Norma Louise<br>A Study of the Library Book Collec-<br>tions in the Biological Sciences in<br>54 Michigan High Schools Accredited<br>by the North Central Association of<br>Colleges and Secondary Schools.                      | 1965 | Michigan         |
| 93. | Jordan, Alma Theodora<br>The Development of Library Service in<br>the West Indies Through Inter-<br>Library Co-operation.                                                                                                               | 1966 | Columbia         |
| 94. | Kaldor, Ivan<br>Slavic Paleography and Early Russian<br>Printing: The Genesis of the Russian<br>Book.                                                                                                                                   | 1967 | Chicago          |

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|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 95.  | Katz, Willis Armstrong<br>The Public Printer: Washington<br>Territory, 1852-1889.                                                                                                      | 1965 | Chicago                 |
| 96.  | Kim, Schoong Han<br>A Study of Public Library Film<br>Services.                                                                                                                        | 1964 | Rutgers                 |
| 97.  | Kipela, Raymond Earl Oliver<br>A Comparative Study of Library<br>Legislation in Indiana, Michigan<br>and Ohio.                                                                         | 1961 | Michigan                |
| 98.  | Kittinger, Frank William<br>School District Instructional<br>Materials Center Buildings.                                                                                               | 1967 | Southern<br>California  |
| 99.  | Kittle, Arthur Thomas<br>Management Theories in Public Library<br>Administration in the United States,<br>1925-1955.                                                                   | 1961 | Columbia                |
| 100. | Khurshid, Anis<br>Standards for Library Education in<br>Burma, Ceylon, India, and Pakistan.                                                                                            | 1969 | Pittsburgh              |
| 101. | Klempner, Irving Max<br>National Documentation Center Ab-<br>stracting and Indexing Services<br>and the Diffusion of Results from<br>Government Sponsored Research.                    | 1967 | Columbia                |
| 102. | Koepp, Donald William<br>Decision Making for the Public<br>Library Function of Municipal<br>Government.                                                                                | 1966 | Berkeley                |
| 103. | Krikelas, James<br>The Effect of Arrangement on the<br>Successful Use of Library Catalogs.                                                                                             | 1967 | Illinois                |
| 104. | Krzys, Richard Andrew<br>Education for Librarianship in<br>Columbia.                                                                                                                   | 1965 | Case Western<br>Reserve |
| 105. | Kunkle, Hannah Josephine<br>A Historical Study of the Extension<br>Activities of the California State<br>Library with Particular Emphasis on<br>its Role in Rural Library Development. | 1969 | Florida<br>State        |

- |      |                                                                                                                                                                                                   |      |                         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 106. | Larsen, John Christian<br>A Study in Service: The Historical<br>Development of the Michigan State<br>Library and Its Territorial Predeces-<br>sor, the Legislative Council Library,<br>1828-1941. | 1967 | Michigan                |
| 107. | Laugher, Charles Theodore<br>The Beginnings of the Library in<br>Colonial America: Dr. Thomas Bray<br>and the Religious Societies,<br>1695-1795.                                                  | 1963 | Case Western<br>Reserve |
| 108. | Letarte, John Herbert<br>Effect of Formal Study and Work<br>Experience on the Occupational and<br>Self Concepts of Librarians.                                                                    | 1968 | Columbia                |
| 109. | Liesener, James Will<br>An Empirical Test of the Validity<br>of the Core Concept in Preparation<br>of University Librarians.                                                                      | 1967 | Michigan                |
| 110. | Lilley, Dorothy Brace<br>Graduate Education Needed by<br>Information Specialists and the<br>Extent to Which it is Offered in<br>Accredited Library Schools.                                       | 1969 | Columbia                |
| 111. | Littleton, Isaac Thomas<br>The Bibliographic Organization and<br>Use of the Literature of Agricul-<br>tural Economics.                                                                            | 1968 | Illinois                |
| 112. | McCabe, James Patrick<br>Catholic Reference Sources: A<br>Critical Study.                                                                                                                         | 1968 | Michigan                |
| 113. | McCreedy, Sister Mary Lucille<br>The Selection of School Librarian-<br>ship as a Career.                                                                                                          | 1963 | Columbia                |
| 114. | McCrossan, John Anthony<br>Library Science Education and its<br>Relationship to Competence in Adult<br>Book Selection in Public Libraries.                                                        | 1966 | Illinois                |
| 115. | McCusker, Sister Mary Girolama<br>The Accessibility of Books in<br>Elementary Schools Without Libraries.                                                                                          | 1963 | Columbia                |

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|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 116. | McGrath, Daniel Francis<br>American Colorplate Books, 1800-1900.                                                                                                                                                                                                            | 1966 | Michigan                |
| 117. | Maciuszko, George<br>Polish Short Story in English.                                                                                                                                                                                                                         | 1962 | Case Western<br>Reserve |
| 118. | Magrill, Rose Mary<br>Occupational Image and the Choice of<br>Librarianship as a Career.                                                                                                                                                                                    | 1969 | Illinois                |
| 119. | Manheimer, Martha L.<br>The Applicability of the NASA<br>Thesaurus to the File of Documents<br>Indexed Prior to its Publication.                                                                                                                                            | 1969 | Pittsburgh              |
| 120. | Marino Samuel Joseph<br>The French Refugee Newspapers and<br>Periodicals in the United States,<br>1789-1825.                                                                                                                                                                | 1962 | Michigan                |
| 121. | Mason, Harold Jesse<br>Industrial Research and the Academic<br>Library in the United States.                                                                                                                                                                                | 1966 | Columbia                |
| 122. | Massman, Virgil Frank<br>Responsibilities and Benefits of<br>Faculty Status for Librarians: A<br>Review of Related Literature and a<br>Survey of Librarians and Faculty<br>Members in Nineteen State Colleges<br>and Universities in Michigan,<br>Minnesota, and Wisconsin. | 1970 | Michigan                |
| 123. | Matta, Seoud Makram<br>The Card Catalog in Large Research<br>Libraries: Present Conditions and<br>Future Possibilities.                                                                                                                                                     | 1965 | Columbia                |
| 124. | Meder, Marlouise Dunham<br>Timothy Green III, Connecticut<br>Printer, 1737-1796: His Life and<br>His Times.                                                                                                                                                                 | 1964 | Michigan                |
| 125. | Melvin, Sister M. Constance, I.H.M.<br>A History of School Libraries in<br>Pennsylvania.                                                                                                                                                                                    | 1962 | Chicago                 |
| 126. | Moid, Abdul<br>Urdu Language Collections in American<br>Libraries.                                                                                                                                                                                                          | 1964 | Illinois                |

127. Moloney, Louis C. 1970 Columbia  
A History of the University Library  
at the University of Texas,  
1883-1934.
128. Monroe, Margaret Ellen 1962 Columbia  
The Evolving Conception of Adult  
Education in Three Public Libraries:  
1920-1955.
129. Montgomery, John Warwick 1962 Chicago  
The Libraries of France at the  
Ascendancy of Mazarin: Louis  
Jacob's Traicte des plus belles  
bibliotheques.
130. Murphy, Layton Barnes 1965 Michigan  
John Holt, Patriot Printer and  
Publisher.
131. Murray, Virginia Elizabeth 1966 Columbia  
The Library in the Organizational  
and Administrative Structure of the  
Canadian University.
132. Munn, Robert Ferguson 1962 Michigan  
West Virginia University Library,  
1867-1917.
133. Musser, Necia Ann 1967 Michigan  
Home Missionaries on the Michigan  
Frontier: A Calendar of the Michigan  
Letters of the American Home Mission-  
ary Society, 1825-1846.
134. Nagar, Murari Lal 1969 Columbia  
Public Library Movement in Baroda,  
1901-1949.
135. Nash, William Verlin 1964 Illinois  
Characteristics of Administrative  
Heads of Public Libraries in Various  
Communications Categories.
136. Oller, Anna Kathryn 1963 Michigan  
Christopher Saur, Colonial Printer.  
A Study of the Publications of the  
Press, 1738-1758.
137. Olson, Lowell Ellis 1966 Minnesota  
Teachers', Principals', and Librarians'  
Perceptions of the School Librarian's  
Role.

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|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 138. | Painter, Ann Forbes<br>An Analysis of Duplication and<br>Consistency of Subject Indexing<br>Involved in Report Handling at the<br>Office of Technical Services, U.S.<br>Department of Commerce.               | 1963 | Rutgers                 |
| 139. | Palmer, Richard Philips<br>User Requirements of a University<br>Library Card Catalog.                                                                                                                         | 1970 | Michigan                |
| 140. | Peterson, Kenneth Gerard<br>The History of the University of<br>California Library at Berkeley,<br>1900-1945.                                                                                                 | 1968 | Berkeley                |
| 141. | Pfister, Frederick Charles<br>School District Professional<br>Librarians in Michigan.                                                                                                                         | 1970 | Michigan                |
| 142. | Picache, Ursula de Guzman<br>Some Effects of Summer Institute<br>Participation on School Librarians'<br>Provision of Services and on Their<br>Attitudes Toward the Instructional<br>Materials Center Concept. | 1969 | Illinois                |
| 143. | Plate, Kenneth Harry<br>Middle Management in University<br>Libraries: The Development of a<br>Theoretical Model for Analysis.                                                                                 | 1969 | Rutgers                 |
| 144. | Pollard, Francis<br>Characteristics of Negro College<br>Chief Librarians.                                                                                                                                     | 1963 | Case Western<br>Reserve |
| 145. | Qasimi, Abdus Subbuh<br>A Code for Cataloging Materials<br>Published in Urdu, Pushto, and<br>Panjabi.                                                                                                         | 1967 | Columbia                |
| 146. | Reeling, Patricia<br>Undergraduate Female Students as<br>Potential Recruits to the Library<br>Profession.                                                                                                     | 1969 | Columbia                |
| 147. | Reynolds, Michael M.<br>A Bibliographic Center in the West<br>Virginia Region: An Analysis of<br>Present Needs and Future Directions.                                                                         | 1964 | Michigan                |

- |      |                                                                                                                                                                                                                                                     |      |                         |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 148. | Ribbens, Dennis Neil<br>The Reading Interests of Thoreau,<br>Hawthorne and Lanier.                                                                                                                                                                  | 1969 | Wisconsin               |
| 149. | Rogers, Amos Robert<br>American Recognition of Canadian<br>Authors Writing in English,<br>1890-1960.                                                                                                                                                | 1964 | Michigan                |
| 150. | Roseberg, Victor<br>A Statistical Technique for Computer-<br>Aided Indexing.                                                                                                                                                                        | 1970 | Chicago                 |
| 151. | Rouse, Roscoe<br>A History of the Baylor University<br>Library, 1845-1919.                                                                                                                                                                          | 1962 | Michigan                |
| 152. | Rowe, Howard Marshall<br>California Public Libraries and the<br>Cooperative Systems Concept: A<br>Study with Recommendations.                                                                                                                       | 1970 | Southern<br>California  |
| 153. | Roxas, Savina A.<br>Library Education in Italy, an<br>Historical Survey, 1870-1969.                                                                                                                                                                 | 1970 | Pittsburgh              |
| 154. | Rupert, Elizabeth Anastasia<br>Pennsylvania Practicum Program for<br>School Librarians: An Appraisal.                                                                                                                                               | 1970 | Pittsburgh              |
| 155. | Saracevic, Tefko<br>On the Concept of Relevance in<br>Information Science.                                                                                                                                                                          | 1970 | Case Western<br>Reserve |
| 156. | Schmitz, Eugenia Evangeline<br>A Study of the Library Book Collec-<br>tions in Mathematics and the Physical<br>Sciences in Forty-Four Michigan High<br>Schools Accredited by the North<br>Central Association of Colleges and<br>Secondary Schools. | 1966 | Michigan                |
| 157. | Scott, Edith<br>J. C. M. Hanson and His Contribution<br>to Twentieth-Century Cataloging.                                                                                                                                                            | 1970 | Chicago                 |
| 158. | Searcy, Herbert Lyman<br>Parochial Libraries in the American<br>Colonies.                                                                                                                                                                           | 1963 | Illinois                |

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|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 159. | Shank, Russell<br>Physical Science and Engineering<br>Societies in the United States as<br>Publishers, 1939-1964.                                               | 1966 | Columbia                |
| 160. | Sharma, Om Prakash<br>Forces Behind the Indian Public<br>Library Movement 1858-1892.                                                                            | 1970 | Chicago                 |
| 161. | Shaughnessy, Thomas William<br>The Influence of Distance and<br>Travel-Time on Central Library Use.                                                             | 1970 | Rutgers                 |
| 162. | Shearer, Jr., Kenneth Decker<br>A Comparison of the Contents of<br>Books: Selection Lists Produced<br>Nationally and Locally for Public<br>Library Use.         | 1969 | Rutgers                 |
| 163. | Sinclair, Dorothy<br>Growth Patterns of Multi-Library<br>Systems for Public Service.                                                                            | 1970 | Case Western<br>Reserve |
| 164. | Slamecka, Vladimir<br>Semi-Centralized System of Technical<br>Documentation and Information of the<br>Czechoslovak Socialist Republic and<br>East Germany.      | 1962 | Columbia                |
| 165. | Slanker, Barbara Olsen<br>Administrative Structure of Public<br>Library Systems and Its Relationship<br>to the Level of Service Offered by<br>Member Libraries. | 1970 | Illinois                |
| 166. | Slavens, Thomas Paul<br>The Library of Union Theological<br>Seminary in the City of New York,<br>1836 to the Present.                                           | 1965 | Michigan                |
| 167. | Slote, Stanley James<br>The Predictive Value of Past-Use<br>Patterns of Adult Fiction in<br>Public Libraries for Identifying<br>Core Collections.               | 1970 | Rutgers                 |
| 168. | Smith, Jessie Carney<br>Patterns of Growth in Library Resources<br>in Certain Land-Grant Universities.                                                          | 1964 | Illinois                |

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|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 169. | Smith, Richard Daniel<br>The Nonaqueous Deacidification of<br>Paper and Books.                                                                                                        | 1970 | Chicago                 |
| 170. | Snider, Felix Eugene<br>The Relationship of Library Ability<br>To Performance in College.                                                                                             | 1965 | Illinois                |
| 171. | Sparks, Claud Glenn<br>William Warner Bishop, a Biography.                                                                                                                            | 1967 | Michigan                |
| 172. | Spence, Paul Herbert<br>A Comparative Study of University<br>Library Organizational Structure.                                                                                        | 1969 | Illinois                |
| 173. | Sprague, Ralph<br>A Comparative Study of Computer<br>Oriented Systems for Selectively<br>Disseminating Information.                                                                   | 1964 | Indiana                 |
| 174. | Stevens, Norman Dennison<br>A Comparative Study of Three Systems<br>of Information Retrieval.                                                                                         | 1961 | Rutgers                 |
| 175. | Stevenson, Henry Gordon<br>The Classified Catalogs of German<br>University Libraries, in Theory and<br>Practice, between 1900-1970.                                                   | 1970 | Indiana                 |
| 176. | Stillman, Mary Elizabeth<br>The United States Air Force Library<br>Service: Its History, Organization<br>and Administration.                                                          | 1966 | Illinois                |
| 177. | Strohecker, Edwin Charles<br>American Juvenile Literary<br>Periodicals, 1789-1826.                                                                                                    | 1969 | Michigan                |
| 178. | Studer, William Joseph<br>Computer Based Selective Dissemination<br>of Information Service (SDI) for<br>Faculty Using Library of Congress<br>Machine Readable Catalog Records (MARC). | 1968 | Indiana                 |
| 179. | Subramaniam, Jonnalagadda Bala<br>Magnetic Resonance: Specificity and<br>Exhaustivity of Coverage of Abstract-<br>ing and Indexing: A Comparison.                                     | 1967 | Case Western<br>Reserve |

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|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 180. | Tague, Jean Mary<br>Statistical Measures of Term<br>Association in Information Retrieval.                                                                                       | 1966 | Case Western<br>Reserve |
| 181. | Tate, Elizabeth Lamb<br>Effective Main Entries: A Comparison<br>of the ALA Cataloging Code with<br>Seymour Lubetzky's Draft Revision in<br>Relation to Bibliographic Citations. | 1963 | Chicago                 |
| 182. | Thompson, Sara Katharine<br>General Interlibrary Loan Services in<br>Major Academic Libraries in the<br>United States.                                                          | 1967 | Columbia                |
| 183. | Ting, Lee-Hsia Hsu<br>Government Control of the Press in<br>Modern China, 1900-1949: A Study of<br>its Theories, Operations, and Effects.                                       | 1969 | Chicago                 |
| 184. | Valliancourt, Pauline M.<br>Bibliographic Control of the<br>Literature of Oncology, 1800-1900.                                                                                  | 1968 | Columbia                |
| 185. | Van Note, Roy Nelson<br><u>Brush and Pencil</u> : Tastemaker of<br>American Art.                                                                                                | 1961 | Illinois                |
| 186. | Verschoor, Irving Alton<br>Tasks and Training of Personnel in<br>Community Libraries in New York<br>State, 1958-1966.                                                           | 1968 | Columbia                |
| 187. | Voos, Henry<br>Standard Times for Certain Clerical<br>Activities in Technical Processing.                                                                                       | 1965 | Rutgers                 |
| 188. | Vorwerk, Richard James<br>The Environmental Demands and<br>Organizational States of Two<br>Academic Libraries.                                                                  | 1970 | Indiana                 |
| 189. | Walker, Richard Dean<br>The Influence of Antecedent Library<br>Service Upon Academic Achievement of<br>University of Illinois Freshmen.                                         | 1963 | Illinois                |
| 190. | Ward. Pearl Lewis<br>Federal Aid to School Libraries: A<br>Study of the Title II, Phase II<br>Program in California, 1965-66.                                                   | 1969 | Southern<br>California  |

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|------|-----------------------------------------------------------------------------------------------------------------------------|------|-------------------------|
| 191. | Wasserman, Paul<br>Toward a Methodology for the<br>Formulation of Objectives in Public<br>Libraries: An Empirical Analysis. | 1961 | Michigan                |
| 192. | Webb, David A.<br>Local Efforts to Prepare Library<br>Assistants and Librarians in Texas<br>from 1900-1952.                 | 1963 | Chicago                 |
| 193. | Weinstein, Frederic Daniel<br>Walter Crane and the American Book<br>Arts, 1880-1915.                                        | 1970 | Columbia                |
| 194. | Weintraub, D. Kathryn<br>The Syntax of Some English Relative<br>Clauses.                                                    | 1970 | Chicago                 |
| 195. | Wert, Lucille Mathena<br>Library Education and High School<br>Library Services.                                             | 1970 | Illinois                |
| 196. | Whalen, Sister Mary Lucille<br>The Literature Used in Catholic and<br>Protestant Research in Theology.                      | 1965 | Columbia                |
| 197. | Wilkinson, John Provost<br>A History of the Dalhousie University<br>Main Library, 1967-1931.                                | 1966 | Chicago                 |
| 198. | Williams, Wiley Julian<br>Evolving a Policy for State Printing:<br>The Michigan Experience, 1835-1861.                      | 1964 | Michigan                |
| 199. | Winkleman, John H.<br>The Imperial Library in Southern<br>Sung China (1127-1279).                                           | 1968 | Chicago                 |
| 200. | Woodworth, Mary Lorraine<br>School Librarians' Opinions on<br>Research and Research Needs in<br>School Librarianship.       | 1969 | Wisconsin               |
| 201. | Wright, Curtis<br>Metagraphy and Graphic Priority:<br>A Discursus for Catalogers.                                           | 1969 | Case Western<br>Reserve |
| 202. | Zachert, Martha Jane<br>Objectives and Patterns in Under-<br>graduate Library Science Education.                            | 1968 | Columbia                |

## APPENDIX B

THE 50 MOST FREQUENTLY OCCURRING AUTHORS AS CITED IN  
DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION  
SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING  
MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON  
ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION IN  
ORDER OF DESCENDING FREQUENCY

# APPENDIX B<sup>1</sup>

| Author                             | Number of<br>Times Cited |
|------------------------------------|--------------------------|
| 1. American Library Association    | 2,152                    |
| 2. U.S. Office of Education        | 348                      |
| 3. Shera, Jesse H.                 | 71                       |
| 4. Library of Congress             | 64                       |
| 5. Illinois. University            | 59                       |
| 6. Canada.                         | 58                       |
| 7. Wheeler, Joseph                 | 58                       |
| 8. Wilson, Louis Round             | 46                       |
| 9. Great Britain                   | 45                       |
| 10. Downs, Robert B.               | 44                       |
| 11. New York Public Library        | 44                       |
| 12. U.S. Census Bureau             | 44                       |
| 13. Ranganathan, S. R.             | 41                       |
| 14. Tauber, Maurice                | 41                       |
| 15. Metcalf, Keyes                 | 40                       |
| 16. National Science Foundation    | 38                       |
| 17. Martin, Lowell                 | 38                       |
| 18. U.S. Congress                  | 38                       |
| 19. Joeckel, Carleton              | 34                       |
| 20. Evans, Charles                 | 32                       |
| 21. Gaver, Mary                    | 32                       |
| 22. McMurtrie, Douglas             | 31                       |
| 23. National Education Association | 31                       |
| 24. Price, D.                      | 31                       |
| 25. Danton, J.                     | 30                       |
| 26. Leigh, Robert                  | 30                       |
| 27. Fussler, H.                    | 30                       |
| 28. Shaw, Ralph                    | 29                       |
| 29. Taube, Mortimer                | 26                       |
| 30. UNESCO                         | 24                       |
| 31. Kessler, M.                    | 24                       |
| 32. Reece, E.                      | 24                       |
| 33. Dewey, M.                      | 23                       |

<sup>1</sup>Authors cited in only one dissertation have been removed.

|                                              |    |
|----------------------------------------------|----|
| 34. Stevens, R.                              | 23 |
| 35. Asheim, L.                               | 22 |
| 36. Ferguson, M.                             | 22 |
| 37. Vickery, B.                              | 22 |
| 38. American Association of School Libraries | 21 |
| 39. Bradford, S. C.                          | 21 |
| 40. Carnovsky, L.                            | 21 |
| 41. Kent, A.                                 | 21 |
| 42. Waples, D.                               | 21 |
| 43. Cleverdon, C.                            | 20 |
| 44. Cutter, C.                               | 20 |
| 45. Williamson, C.                           | 20 |
| 46. Berelson, B.                             | 19 |
| 47. Bishop, W.                               | 19 |
| 48. Ellsworth, R.                            | 19 |
| 49. Harvard University                       | 19 |
| 50. Mahar, M.                                | 19 |

APPENDIX C

FREQUENCY TABLE OF 202 DISSERTATIONS FROM LIBRARY SCHOOLS  
HAVING MASTER'S LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE  
ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION,  
1961-1970,  
BY LIBRARY SCHOOL CATEGORIZED BY TOPIC

# APPENDIX C

FREQUENCY TABLE OF 202 DISSERTATIONS FROM LIBRARY SCHOOLS  
HAVING MASTER'S LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE  
ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION,  
1961-1970, BY LIBRARY SCHOOL CATEGORIZED BY TOPIC

| SCHOOL<br>TOPIC           | Case<br>Western | U. of Calif.<br>Berkeley | U.Southern<br>California | Florida<br>State U. |
|---------------------------|-----------------|--------------------------|--------------------------|---------------------|
| GENERAL                   | 3               | 1                        |                          |                     |
| SCHOOL<br>LIBRARIES       |                 |                          | 2                        |                     |
| INFORMATION<br>SCIENCE    | 6               | 1                        |                          |                     |
| ACADEMIC<br>LIBRARIES     | 1               | 1                        | 2                        |                     |
| LITERATURE<br>STUDIES     | 4               | 1                        |                          |                     |
| PUBLIC<br>LIBRARIES       | 1               | 2                        | 1                        | 2                   |
| LIBRARY<br>EDUCATION      | 2               |                          |                          |                     |
| SPECIAL<br>LIBRARIES      | 1               |                          |                          |                     |
| HISTORY OF<br>BOOKS, ETC. | 1               |                          |                          |                     |
| STATE<br>LIBRARIES        |                 |                          |                          |                     |
| TOTALS                    | 19              | 6                        | 5                        | 2                   |

APPENDIX C--Continued

| Univ. of<br>Chicago | Univ. of<br>Illinois | Indiana<br>Univ. | Univ. of<br>Michigan | Univ. of<br>Minnesota | Rutgers |
|---------------------|----------------------|------------------|----------------------|-----------------------|---------|
| 4                   | 8                    | 1                | 3                    |                       | 3       |
| 1                   | 2                    |                  | 3                    | 2                     | 2       |
| 3                   | 4                    | 2                | 1                    |                       | 5       |
| 1                   | 7                    | 2                | 7                    |                       | 4       |
| 4                   | 5                    | 1                | 15                   |                       | 1       |
| 1                   | 5                    |                  | 5                    |                       | 9       |
| 1                   | 3                    |                  |                      |                       | 1       |
| 1                   | 1                    |                  | 2                    |                       |         |
| 1                   |                      |                  | 3                    |                       | 1       |
|                     |                      |                  | 1                    |                       |         |
| 17                  | 35                   | 6                | 40                   | 2                     | 26      |

APPENDIX C--Continued

| SCHOOL<br>TOPIC           | Columbia<br>Univ. | Univ. of<br>Pittsburgh | Univ. of<br>Texas | Univ. of<br>Wisconsin | TOTALS |
|---------------------------|-------------------|------------------------|-------------------|-----------------------|--------|
| GENERAL                   | 7                 | 3                      |                   |                       | 33     |
| SCHOOL<br>LIBRARIES       | 2                 | 1                      |                   | 1                     | 16     |
| INFORMATION<br>SCIENCE    | 5                 | 2                      | 1                 |                       | 30     |
| ACADEMIC<br>LIBRARIES     | 4                 |                        | 1                 |                       | 30     |
| LITERATURE<br>STUDIES     | 4                 |                        |                   | 1                     | 36     |
| PUBLIC<br>LIBRARIES       | 7                 | 1                      |                   |                       | 34     |
| LIBRARY<br>EDUCATION      | 1                 | 2                      |                   |                       | 10     |
| SPECIAL<br>LIBRARIES      |                   |                        |                   |                       | 5      |
| HISTORY OF<br>BOOKS, ETC. |                   |                        |                   |                       | 6      |
| STATE<br>LIBRARIES        | 1                 |                        |                   |                       | 2      |
| TOTALS                    | 31                | 9                      | 2                 | 2                     | 202    |

#### APPENDIX D

FREQUENCY TABLE OF 202 DISSERTATIONS FROM LIBRARY SCHOOLS  
HAVING MASTERS LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE  
ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION,  
1961-1970, BY LIBRARY SCHOOL CATEGORIZED BY ACTIVITY

# APPENDIX D

FREQUENCY TABLE OF 202 DISSERTATIONS FROM LIBRARY SCHOOLS  
HAVING MASTER'S LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE  
ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION,  
1961-1970, BY LIBRARY SCHOOL CATEGORIZED BY ACTIVITY

| SCHOOL                     | Case<br>Western | U. of Calif.<br>Berkeley | U. Southern<br>California | Florida<br>State U. |
|----------------------------|-----------------|--------------------------|---------------------------|---------------------|
| <u>ACTIVITY</u>            |                 |                          |                           |                     |
| GENERAL                    | 6               | 2                        |                           |                     |
| ORGANIZATION<br>AND ADMIN. | 1               | 1                        | 2                         |                     |
| RESOURCES                  | 1               |                          | 1                         |                     |
| READERS<br>SERVICES        | 1               | 2                        |                           | 1                   |
| TECHNICAL<br>PROCESSES     | 5               |                          | 1                         |                     |
| PERSONNEL &<br>TRAINING    | 1               | 1                        | 1                         | 1                   |
| INTERNATIONAL              | 3               |                          |                           |                     |
| METHODS OF<br>RESEARCH     |                 |                          |                           |                     |
| MODELS                     | 1               |                          |                           |                     |
| OTHER<br>ACTIVITIES        |                 |                          |                           |                     |
| TOTALS                     | 19              | 6                        | 5                         | 2                   |

APPENDIX D--CONTINUED

| Univ. of<br>Chicago | Univ. of<br>Illinois | Indiana<br>Univ. | Univ. of<br>Michigan | Univ. of<br>Minnesota | Rutgers |
|---------------------|----------------------|------------------|----------------------|-----------------------|---------|
| 9                   | 10                   | 1                | 19                   | 1                     | 1       |
|                     | 7                    | 2                | 1                    | 1                     | 2       |
|                     | 6                    |                  | 10                   |                       | 2       |
|                     | 3                    | 1                | 2                    |                       | 11      |
| 4                   | 6                    | 2                | 2                    |                       | 9       |
| 1                   | 3                    |                  | 2                    |                       |         |
| 1                   |                      |                  |                      |                       |         |
|                     |                      |                  | 1                    |                       |         |
|                     |                      |                  | 1                    |                       | 1       |
| 2                   |                      |                  | 2                    |                       |         |
| 17                  | 35                   | 6                | 40                   | 2                     | 26      |

APPENDIX D--CONTINUED

| SCHOOL                  | Columbia Univ. | Univ. of Pittsburgh | Univ. of Texas | Univ. of Wisconsin | Totals |
|-------------------------|----------------|---------------------|----------------|--------------------|--------|
| <u>ACTIVITY</u>         |                |                     |                |                    |        |
| GENERAL                 | 6              |                     |                |                    | 55     |
| ORGANIZATION AND ADMIN. | 3              |                     |                |                    | 20     |
| RESOURCES               | 4              |                     | 1              |                    | 25     |
| READERS SERVICES        | 2              |                     |                |                    | 23     |
| TECHNICAL PROCESSES     | 7              | 4                   |                |                    | 40     |
| PERSONNEL & TRAINING    | 6              | 2                   |                |                    | 18     |
| INTERNATIONAL           | 3              | 1                   |                |                    | 8      |
| METHODS OF RESEARCH     |                | 2                   |                | 1                  | 4      |
| MODELS                  |                |                     | 1              |                    | 4      |
| OTHER ACTIVITIES        |                |                     |                | 1                  | 5      |
| TOTALS                  | 31             | 9                   | 2              | 2                  | 202    |

APPENDIX E

FREQUENCY TABLE OF CITATIONS IN 202 DISSERTATIONS FROM  
LIBRARY SCHOOLS HAVING MASTER'S LEVEL PROGRAMS ACCREDITED  
BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY  
ASSOCIATION, 1961-1970, CATEGORIZED BY ACTIVITY COMPARED  
WITH THE FORM OF MATERIALS CITED

# APPENDIX E

FREQUENCY TABLE OF CITATIONS IN 202 DISSERTATIONS FROM  
LIBRARY SCHOOLS HAVING MASTER'S LEVEL PROGRAMS ACCREDITED  
BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY  
ASSOCIATION, 1961-1970, CATEGORIZED BY ACTIVITY COMPARED  
WITH THE FORM OF MATERIALS CITED

| ACTIVITY                | BACKGROUND | ORGN. AND<br>ADMIN. | RESOURCES |
|-------------------------|------------|---------------------|-----------|
| <u>FORM OF MATERIAL</u> |            |                     |           |
| 1. MONOGRAPH            | 3473       | 882                 | 762       |
| 2. JOURNALS             | 1641       | 967                 | 788       |
| 3. PROCEEDINGS          | 56         | 36                  | 57        |
| 4. ACADEMIC             | 2          | 1                   | 2         |
| 5. REPORT LIT.          | 8          | 35                  | 7         |
| 6. CORRESPONDENCE       | 88         | 18                  | 56        |
| 7. DISSERTATIONS        | 213        | 80                  | 112       |
| 8. UNPUBLISHED          | 91         | 64                  | 22        |
| 9. MIMEOGRAPHED         | 3          | 10                  | 6         |
| 10. STATE DOCUMENTS     | 106        | 121                 | 42        |
| 11. FEDERAL DOCUMENTS   | 226        | 69                  | 118       |
| 12. INTERVIEWS          | 55         | 21                  | 40        |
| 13. MISCELLANEOUS       | 220        | 47                  | 243       |
| 14. ARCHIVAL            | 399        | 12                  | 1         |
| 15. NEWSPAPERS          | 190        | 2                   | 9         |
| 16. LAWS, STATUTES      | 90         | 81                  | 12        |
| 17. ANNUALS             | 39         | 16                  | 28        |
| 18. COURT CASES         | 72         |                     | 1         |
| 19. AUDIO-VISUAL        | 7          |                     |           |
| 20. PATENTS             |            |                     |           |
| TOTALS                  | 6979       | 2462                | 2306      |

APPENDIX E--Continued

| READERS<br>SERVICES | TECHNICAL<br>PROCESSES | PERSONNEL<br>& TRAINING | INTERNATIONAL |
|---------------------|------------------------|-------------------------|---------------|
| 451                 | 989                    | 628                     | 234           |
| 601                 | 1288                   | 738                     | 353           |
| 32                  | 112                    | 53                      | 20            |
| 2                   |                        | 4                       | 1             |
| 50                  | 111                    | 10                      | 1             |
| 129                 | 16                     | 80                      | 7             |
| 61                  | 76                     | 151                     | 6             |
| 136                 | 46                     | 43                      | 10            |
| 9                   | 5                      | 13                      |               |
| 52                  | 4                      | 34                      | 102           |
| 41                  | 130                    | 87                      | 56            |
| 110                 | 26                     | 4                       | 4             |
| 91                  | 37                     | 36                      | 7             |
| 17                  | 3                      | 20                      | 10            |
| 10                  | 6                      |                         | 14            |
| 41                  | 2                      | 7                       | 27            |
| 7                   | 45                     | 10                      | 12            |
| 1                   |                        |                         |               |
| 9                   |                        |                         |               |
|                     | 50                     |                         |               |
| 1850                | 2946                   | 1918                    | 864           |

APPENDIX E--Continued

| ACTIVITY                             | RESEARCH<br>METHODS | MODELS | OTHER SERV.<br>& ACTIVITIES | TOTALS |
|--------------------------------------|---------------------|--------|-----------------------------|--------|
| <u>FORM OF MATERIAL</u><br>MONOGRAPH | 167                 | 163    | 157                         | 7906   |
| JOURNALS                             | 152                 | 66     | 110                         | 6704   |
| PROCEEDINGS                          | 3                   | 15     | 14                          | 398    |
| ACADEMIC                             |                     |        | 2                           | 14     |
| REPORT LIT.                          | 20                  | 12     | 4                           | 258    |
| CORRESPONDENCE                       | 3                   | 1      | 3                           | 401    |
| DISSERTATIONS                        | 17                  | 5      | 16                          | 737    |
| UNPUBLISHED                          | 2                   |        | 10                          | 424    |
| MIMEOGRAPHED                         | 14                  |        | 1                           | 61     |
| STATE DOCUMENTS                      | 1                   |        |                             | 462    |
| FEDERAL DOCUMENTS                    | 4                   | 1      | 3                           | 735    |
| INTERVIEWS                           | 1                   |        |                             | 261    |
| MISCELLANEOUS                        | 2                   |        | 2                           | 685    |
| ARCHIVAL                             |                     |        |                             | 462    |
| NEWSPAPERS                           | 1                   |        |                             | 232    |
| LAWS, STATUTES                       |                     |        |                             | 260    |
| ANNUALS                              |                     |        |                             | 157    |
| COURT CASES                          |                     |        |                             | 74     |
| AUDIO-VISUAL                         |                     |        | 1                           | 17     |
| PATENTS                              |                     |        |                             | 50     |
| TOTALS                               | 387                 | 263    | 323                         | 20,298 |

APPENDIX F

FREQUENCY TABLE OF CITATIONS IN 202 DISSERTATIONS FROM  
LIBRARY SCHOOLS HAVING MASTER'S LEVEL PROGRAMS ACCREDITED  
BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY  
ASSOCIATION, 1961-1970, CATEGORIZED BY TOPIC COMPARED  
WITH THE FORM OF MATERIALS CITED

# APPENDIX F

FREQUENCY TABLE OF CITATIONS IN 202 DISSERTATIONS FROM  
LIBRARY SCHOOLS HAVING MASTER'S LEVEL PROGRAMS ACCREDITED  
BY THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY  
ASSOCIATION, 1961-1970, CATEGORIZED BY TOPIC COMPARED  
WITH THE FORM OF MATERIALS CITED

| TOPIC                   | GENERAL | SCHOOL<br>LIBRARIES | INFORMATION<br>SCIENCE |
|-------------------------|---------|---------------------|------------------------|
| <u>FORM OF MATERIAL</u> |         |                     |                        |
| MONOGRAPHS              | 1311    | 321                 | 725                    |
| JOURNALS                | 1096    | 288                 | 841                    |
| PROCEEDINGS             | 60      | 28                  | 115                    |
| ACADEMIC                | 4       | 2                   | 3                      |
| REPORT LITERATURE       | 8       | 14                  | 166                    |
| CORRESPONDENCE          | 33      | 14                  | 98                     |
| DISSERTATIONS           | 108     | 145                 | 35                     |
| UNPUBLISHED             | 76      | 7                   | 111                    |
| MIMEOGRAPHED            | 1       | 22                  |                        |
| STATE DOCUMENTS         | 40      | 44                  |                        |
| FEDERAL DOCUMENTS       | 139     | 63                  | 73                     |
| INTERVIEWS              | 8       | 2                   | 9                      |
| MISCELLANEOUS           | 108     | 28                  | 12                     |
| ARCHIVAL                | 88      |                     |                        |
| NEWSPAPERS              | 44      | 8                   | 3                      |
| LAWS, STATUTES          | 9       | 6                   | 1                      |
| ANNUALS                 | 18      | 15                  | 37                     |
| COURT CASES             | 3       | 1                   |                        |
| AUDIO-VISUAL            | 3       |                     |                        |
| PATENTS                 |         |                     |                        |
| TOTALS                  | 3157    | 1008                | 2229                   |

APPENDIX F--Continued

| ACADEMIC<br>LIBRARIES | LITERATURE<br>STUDIES | PUBLIC<br>LIBRARIES | LIBRARY<br>EDUCATION |
|-----------------------|-----------------------|---------------------|----------------------|
| 821                   | 2375                  | 1373                | 328                  |
| 1152                  | 1032                  | 1307                | 447                  |
| 76                    | 22                    | 45                  | 34                   |
| 2                     |                       | 3                   |                      |
| 16                    | 7                     | 10                  | 1                    |
| 64                    | 26                    | 70                  | 69                   |
| 141                   | 114                   | 104                 | 57                   |
| 26                    | 32                    | 101                 | 30                   |
| 13                    | 1                     | 12                  | 11                   |
| 22                    | 24                    | 214                 | 11                   |
| 80                    | 132                   | 113                 | 51                   |
| 102                   | 58                    | 64                  | 8                    |
| 373                   | 64                    | 56                  | 31                   |
| 151                   | 133                   | 55                  | 24                   |
| 18                    | 73                    | 41                  |                      |
| 21                    | 5                     | 180                 | 6                    |
| 18                    | 27                    | 23                  | 13                   |
|                       | 9                     | 60                  |                      |
| 4                     |                       | 9                   |                      |
| 3100                  | 4134                  | 3840                | 1121                 |

APPENDIX F--Continued

| TOPIC                   | SPECIAL<br>LIBRARIES | HISTORY OF<br>BOOKS, ETC. | STATE<br>LIBRARIES | TOTALS |
|-------------------------|----------------------|---------------------------|--------------------|--------|
| <u>FORM OF MATERIAL</u> |                      |                           |                    |        |
| MONOGRAPHS              | 174                  | 416                       | 62                 | 7906   |
| JOURNALS                | 239                  | 162                       | 140                | 6704   |
| PROCEEDINGS             | 8                    | 3                         | 7                  | 398    |
| ACADEMIC                |                      |                           |                    | 14     |
| REPORT LITERATURE       | 33                   | 3                         |                    | 258    |
| CORRESPONDENCE          | 15                   | 9                         | 3                  | 401    |
| DISSERTATIONS           | 23                   | 8                         | 2                  | 737    |
| UNPUBLISHED             | 17                   | 20                        | 4                  | 424    |
| MIMEOGRAPHED            |                      | 1                         |                    | 61     |
| STATE DOCUMENTS         |                      | 12                        | 95                 | 462    |
| FEDERAL DOCUMENTS       | 58                   | 16                        | 10                 | 735    |
| INTERVIEWS              | 6                    | 4                         |                    | 261    |
| MISCELLANEOUS           | 7                    | 3                         | 3                  | 685    |
| ARCHIVAL                | 2                    | 5                         | 4                  | 462    |
| NEWSPAPERS              | 27                   | 2                         | 16                 | 232    |
| LAWS, STATUTES          | 1                    |                           | 31                 | 260    |
| ANNUALS                 | 3                    |                           | 3                  | 157    |
| COURT CASES             |                      | 1                         |                    | 74     |
| AUDIO-VISUAL            | 1                    |                           |                    | 17     |
| PATENTS                 |                      | 50                        |                    | 50     |
| TOTALS                  | 614                  | 715                       | 380                | 20,298 |

APPENDIX G

FREQUENCY TABLE OF CITATIONS CATEGORIZED BY TOPIC COMPARED  
WITH CITATIONS CATEGORIZED BY ACTIVITY AS CITED IN 202  
DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE,  
1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S LEVEL  
PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF  
THE AMERICAN LIBRARY ASSOCIATION

# APPENDIX G

FREQUENCY TABLE OF CITATIONS CATEGORIZED BY TOPIC COMPARED  
WITH CITATIONS CATEGORIZED BY ACTIVITY AS CITED IN 202  
DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE,  
1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S LEVEL  
PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF  
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| TOPIC                      | General | School<br>Libraries | Information<br>Science | Academic<br>Libraries |
|----------------------------|---------|---------------------|------------------------|-----------------------|
| <u>ACTIVITY</u>            |         |                     |                        |                       |
| GENERAL                    | 1145    | 269                 | 58                     | 720                   |
| ORGANIZATION<br>AND ADMIN. | 48      | 172                 | 137                    | 717                   |
| RESOURCES                  | 200     | 275                 | 2                      | 685                   |
| READERS<br>SERVICES        |         | 87                  | 283                    | 356                   |
| TECHNICAL<br>PROCESSES     | 1281    | 1                   | 1074                   | 287                   |
| PERSONNEL &<br>TRAINING    | 278     | 160                 | 129                    | 278                   |
| INTERNATIONAL              | 210     |                     | 168                    |                       |
| METHODS OF<br>RESEARCH     |         | 45                  | 38                     |                       |
| MODELS                     | 1       |                     | 208                    | 55                    |
| OTHER<br>ACTIVITIES        | 1       |                     | 130                    |                       |
| TOTALS                     | 3164    | 1008                | 2229                   | 3100                  |

APPENDIX G--Continued

| Literature<br>Studies | Public<br>Libraries | Library<br>Education | Special<br>Libraries |
|-----------------------|---------------------|----------------------|----------------------|
| 2908                  | 745                 | 216                  | 291                  |
| 48                    | 1049                |                      | 287                  |
| 867                   | 220                 | 37                   |                      |
| 59                    | 1026                |                      | 36                   |
| 59                    | 24                  |                      |                      |
|                       | 262                 | 811                  |                      |
|                       | 207                 | 58                   |                      |
|                       | 304                 |                      |                      |
| 191                   |                     |                      |                      |
| 4134                  | 3840                | 1121                 | 614                  |

APPENDIX G--Continued

| TOPIC                      | History of<br>Books, Etc. | State<br>Libraries | TOTALS |
|----------------------------|---------------------------|--------------------|--------|
| <u>ACTIVITY</u>            |                           |                    |        |
| GENERAL                    | 476                       | 157                | 6985   |
| ORGANIZATION<br>AND ADMIN. |                           |                    | 2458   |
| RESOURCES                  | 19                        | 1                  | 2306   |
| READERS<br>SERVICES        |                           |                    | 1847   |
| TECHNICAL<br>PROCESSES     | 220                       |                    | 2946   |
| PERSONNEL &<br>TRAINING    |                           |                    | 1918   |
| INTERNATIONAL              |                           | 221                | 864    |
| METHODS OF<br>RESEARCH     |                           |                    | 387    |
| MODELS                     |                           |                    | 264    |
| OTHER<br>ACTIVITIES        |                           | 1                  | 323    |
|                            | 715                       | 380                | 20,298 |

#### APPENDIX H

FREQUENCY OF CITATIONS CATEGORIZED BY ACTIVITY AS CITED  
IN 202 DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION  
SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S  
LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION  
OF THE AMERICAN LIBRARY ASSOCIATION

## APPENDIX H

| ACTIVITY                        | NUMBER OF CITATIONS |
|---------------------------------|---------------------|
| Background                      | 6979                |
| Organization and Administration | 2462                |
| Resources                       | 2306                |
| Readers Services                | 1850                |
| Technical Processes             | 2946                |
| Personnel and Training          | 1918                |
| International                   | 864                 |
| Research Methods                | 387                 |
| Models                          | 263                 |
| Other Services and Activities   | <u>323</u>          |
| TOTAL                           | 20,298              |

APPENDIX I

FREQUENCY OF CITATIONS CATEGORIZED BY TOPIC AS CITED IN  
202 DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION  
SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S  
LEVEL PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION  
OF THE AMERICAN LIBRARY ASSOCIATION

# APPENDIX I

| TOPIC                  | NUMBER OF CITATIONS |
|------------------------|---------------------|
| General                | 3157                |
| School Libraries       | 1008                |
| Information Science    | 2229                |
| Academic Libraries     | 3100                |
| Literature Studies     | 4134                |
| Public Libraries       | 3840                |
| Library Education      | 1121                |
| Special Libraries      | 614                 |
| History of Books, Etc. | 715                 |
| State Libraries        | <u>380</u>          |
| TOTAL                  | 20,298              |

**APPENDIX J**

**FREQUENCY OF CITATIONS CATEGORIZED BY FORM AS CITED IN  
202 DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION  
SCIENCE, 1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S  
PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION  
OF THE AMERICAN LIBRARY ASSOCIATION**

# APPENDIX J

| FORM                    | NUMBER OF CITATIONS |
|-------------------------|---------------------|
| Monographs              | 7906                |
| Journals                | 6704                |
| Proceedings             | 398                 |
| Academic Writings       | 14                  |
| Report Literature       | 258                 |
| Correspondence, Letters | 401                 |
| Dissertations           | 737                 |
| Unpublished Materials   | 424                 |
| Mimeographed Materials  | 61                  |
| State Documents         | 462                 |
| Federal Documents       | 735                 |
| Interviews              | 261                 |
| Miscellaneous           | 685                 |
| Archival Materials      | 462                 |
| Newspapers              | 232                 |
| Laws, Statutes          | 260                 |
| Annuals                 | 157                 |
| Court Cases             | 74                  |
| Audio-Visual Materials  | 17                  |
| Patents                 | <u>50</u>           |
| TOTAL                   | 20,298              |

#### APPENDIX K

THE 100 MOST FREQUENTLY OCCURRING JOURNALS AS CITED IN  
DOCTORAL DISSERTATIONS IN LIBRARY AND INFORMATION SCIENCE,  
1961-1970, FROM LIBRARY SCHOOLS HAVING MASTER'S LEVEL  
PROGRAMS ACCREDITED BY THE COMMITTEE ON ACCREDITATION OF  
THE AMERICAN LIBRARY ASSOCIATION, IN ORDER OF DESCENDING  
FREQUENCY

# APPENDIX K

| RANK | JOURNAL TITLE                                           | NUMBER OF<br>TIMES CITED* |
|------|---------------------------------------------------------|---------------------------|
| 1.   | Library Journal                                         | 662                       |
| 2.   | American Library Association Bulletin                   | 398                       |
| 3.   | College and Research Libraries                          | 332                       |
| 4.   | Library Quarterly                                       | 311                       |
| 5.   | American Documentation                                  | 193                       |
| 6.   | Library Trends                                          | 166                       |
| 7.   | Special Libraries                                       | 128                       |
| 8.   | News Notes of California Libraries                      | 126                       |
| 9.   | Library Resources and Technical Services                | 114                       |
| 10.  | Science                                                 | 108                       |
| 11.  | Wilson Library Bulletin                                 | 93                        |
| 12.  | Journal of Documentation                                | 75                        |
| 13.  | Journal of Chemical Documentation                       | 56                        |
| 14.  | Journal of Education for Librarianship                  | 56                        |
| 15.  | Library Association Record                              | 52                        |
| 16.  | Public Libraries                                        | 52                        |
| 17.  | Medical Library Association Bulletin                    | 51                        |
| 18.  | California Librarian                                    | 50                        |
| 19.  | Chemical and Engineering News                           | 49                        |
| 20.  | ASLIB Proceedings                                       | 46                        |
| 21.  | UNESCO Bulletin for Libraries                           | 45                        |
| 22.  | Canadian Library Association Bulletin                   | 42                        |
| 23.  | Illinois Libraries                                      | 42                        |
| 24.  | New York Public Library Bulletin                        | 42                        |
| 25.  | American Sociological Review                            | 37                        |
| 26.  | Journal of Cataloging and Classification                | 37                        |
| 27.  | Louisiana Historical Quarterly                          | 36                        |
| 28.  | Saturday Review                                         | 35                        |
| 29.  | Bibliographical Society of America. Papers              | 30                        |
| 30.  | American Journal of Sociology                           | 29                        |
| 31.  | Publisher's Weekly                                      | 29                        |
| 32.  | Bulletin of Atomic Scientists                           | 28                        |
| 33.  | Libri                                                   | 28                        |
| 34.  | Pennsylvania Magazine of History                        | 27                        |
| 35.  | American Association of Library Schools.<br>Newsletter. | 25                        |

\* Journals cited in only one dissertation have been omitted.

|       |                                                                   |    |
|-------|-------------------------------------------------------------------|----|
| 36.   | Harvard Library Bulletin                                          | 25 |
| 37.   | Nature                                                            | 25 |
| 38.   | Harpers                                                           | 23 |
| 39.   | Indiana Librarian                                                 | 23 |
| 40.   | Michigan Librarian                                                | 23 |
| 41.   | Michigan Library Bulletin                                         | 22 |
| 42.   | Texas Libraries                                                   | 22 |
| 43.   | Journal of Counselling Psychology                                 | 21 |
| 44.   | Industrial and Engineering Chemistry                              | 19 |
| 45.   | Pennsylvania School Journal                                       | 19 |
| 46.   | American Literature                                               | 18 |
| 47.   | Administrative Science Quarterly                                  | 18 |
| 48.   | Harvard Business Review                                           | 18 |
| 49.   | Illinois. University. Library School.<br>Occasional Papers        | 18 |
| 50.   | Personnel and Guidance Journal                                    | 18 |
| 51.   | Public Opinion Quarterly                                          | 18 |
| 52.   | American Antiquarian Society. Proceedings                         | 17 |
| 53.   | Journal of the Optical Society of America                         | 17 |
| 54.   | New England Quarterly                                             | 17 |
| 55.   | Southeastern Librarian                                            | 17 |
| ✓ 56. | Top of the News                                                   | 17 |
| 57.   | Nation                                                            | 16 |
| 58.   | Physics Today                                                     | 16 |
| 59.   | School and Society                                                | 16 |
| 60.   | Wisconsin Library Bulletin                                        | 16 |
| 61.   | Catalogers and Classifiers Yearbook                               | 15 |
| 62.   | Library World                                                     | 15 |
| 63.   | Pacific Northwest Library Association<br>Quarterly                | 15 |
| 64.   | Journal of the Association of Computing<br>Machinery              | 14 |
| 65.   | The Library                                                       | 14 |
| 66.   | Historical Magazine of the Protestant<br>Episcopal Church         | 14 |
| 67.   | Nuclear News                                                      | 14 |
| 68.   | Annals of the American Academy of<br>Political and Social Science | 13 |
| 69.   | C.A.U.T. Bulletin                                                 | 13 |
| 70.   | Journal of Higher Education                                       | 13 |
| 71.   | Library Herald                                                    | 13 |
| 72.   | Minnesota Libraries                                               | 13 |
| ✓ 73. | RQ                                                                | 13 |
| 74.   | Commentaries of the ACM                                           | 12 |
| 75.   | IRE Transactions                                                  | 12 |
| 76.   | Language                                                          | 12 |
| 77.   | Canadian Librarian                                                | 11 |
| 78.   | Higher Education                                                  | 11 |
| 79.   | Journal of American Oriental Studies                              | 11 |
| 80.   | Kenyon Review                                                     | 11 |
| 81.   | Library Miscellany                                                | 11 |

|        |                                                                  |    |
|--------|------------------------------------------------------------------|----|
| 82.    | Maryland Historical Magazine                                     | 11 |
| 83.    | Modern Library                                                   | 11 |
| 84.    | National Association of Secondary<br>School Principals. Bulletin | 11 |
| 85.    | Operations Research                                              | 11 |
| 86.    | Pakistan Library Review                                          | 11 |
| 87.    | School Libraries                                                 | 11 |
| 88.    | American Historical Review                                       | 10 |
| 89.    | IBM Journal of Resources                                         | 10 |
| 90.    | Journal of Experimental Education                                | 10 |
| 91.    | Library of Congress Bulletin                                     | 10 |
| 92.    | Ontario Library Review                                           | 10 |
| 93.    | PLD Reporter                                                     | 10 |
| 94.    | Atlantic Monthly                                                 | 9  |
| 95.    | Audio-Visual Instructor                                          | 9  |
| 96.    | California Library Association Bulletin                          | 9  |
| 97.    | Journal of Applied Psychology                                    | 9  |
| 98.    | Journal of Educational Psychology                                | 9  |
| 99.    | Journal of Educational Research                                  | 9  |
| X 100. | School Library Journal                                           | 9  |