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ABSTRACT

Following the closing of the National Library of Medicine's (NLM's) card catalog, a study was performed in 1982 to specify minimally acceptable requirements and capabilities for an NLM-based online catalog system and to evaluate the technical performance and user acceptance of available systems. Two prototype online catalog systems were selected for establishment, test, and evaluation: CITE (Current Information Transfer in English), which incorporates a user-friendly front end to the CATLINE system operating on the NLM's IBM 3033 main frame; and the public catalog access module of ILS (Integrated Library System), which also utilizes the CATLINE database but operates on a dedicated Data General S230 minicomputer. Based on verification protocols, limits testing, a survey of library patrons--both users and nonusers of the online catalog--and two experiments involving searches by NLM patrons and staff, it was recommended to the NLM director that CITE/CATLINE be adopted in its present state for use by patrons and non-technical library staff, and that appropriate systems support be provided. This final report briefly describes the study background, objectives, approach, methodology, and major findings. Extensive appendices comprise performance testing results, the results of analyses on user acceptance data, sample user and nonuser questionnaires, and a list of search questions and data collector's scoring sheets used in the search experiments. (ESR)

ONLINE CATALOG STUDY:

FINAL REPORT

by

Elliot R. Siegel

December 1982

ONLINE CATALOG STUDY
FINAL REPORT

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I. Background:

With the closing of NLM's card catalog in early 1980, a computer output microform catalog system (COMCAT) was established on an interim basis in the public catalog area to provide patrons and non-technical staff with access to new and updated catalog entries. (The Library's reference and technical staff continued to use the CATLINE system for information retrieval and file maintenance.) In December 1981, The Director assigned Dr. Elliot Siegel, Lister Hill Center, to undertake an objective and scientifically valid evaluation study of several alternative online catalog systems that had been proposed by in-house staff for adoption. These candidate systems were intended for direct end-user catalog access, and could potentially fulfill the NLM's needs until such time as the planned MEDLARS enhancements are in place. The study was to be performed in-house utilizing a Study Group*/ad hoc working group model; the duration was to be nine months.

II. Study Objectives:

1. Specify minimally acceptable requirements and capabilities for an NLM-based online catalog system;

2. Determine whether we can establish, make accessible, and operationally test CATLINE (in its present form), CITE, ILS and Paperchase in the NLM public catalog area;

3. Evaluate the performance and user acceptance of each system, particularly among Library patrons and staff;

4. Formulate a recommendation to the Director concerning the adoption of these systems, including specification of any modifications/enhancements required.

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*Members of the Study Group were Mr. John Anderson, Dr. Clifford Bachrach, Ms. Lois Ann Colaianni, Ms. Karen Kameen, Dr. Henry Riecken, Dr. Warren Seibert, Dr. Manfred Waserman and Dr. Elliot Siegel, Chairman. Important contributions were made by staff from throughout the Library: Ms. Barbara Bishop, Mr. Robert Borochoff, Ms. Pat Bosman, Mr. Pat Denman, Mr. Kenneth Grant, Mr. Gerard Guthrie, Ms. Doris Doran, Ms. Lou Knecht, Dr. Marjorie Kuenz, Dr. Craig Locatis, Mr. Bernard Silverstein, Ms. Sally Sinn, Ms. Barbara Sternick, Ms. Beth Weil, Dr. Michael Weisberg, Ms. Freida Weise.

December 1982

III. Approach:

Upon achievement of study objectives #1 and #2, two prototype online catalog systems were selected in March for establishment, test and evaluation. They are CITE ("Current Information Transfer in English"), incorporating a user friendly front end to the CATLINE system operating on the Library's IBM 3033 mainframe; and the public catalog access module of ILS ("Integrated Library System"), which also utilizes the CATLINE database but operates on a dedicated Data General S230 minicomputer. Both CITE and ILS are ongoing R&D efforts in Specialized Information Services (SIS) and the Lister Hill Center (LHC), respectively. The system designers, Dr. Tamas Doszkocs (CITE) and Mr. Charles Goldstein (ILS), were requested to further develop and equip their systems so as to conform to the technical specifications outlined by the Study Group in objective #1. These would later constitute the performance criteria against which the systems would be evaluated. In the case of CITE/CATLINE, this involved continuing with the production and refinement of new software. For ILS, the principal hurdle was to create a functionally acceptable database suitable for operational use by Library patrons during the test period. This involved the conversion of nearly one-quarter million CATLINE records to MARC format, and their loading and indexing on ILS. The time allotted for these activities was very short given the planned duration of the Study. CITE/CATLINE was successfully established and made ready for test and evaluation in April, and ILS in June. Concurrently, other working groups were proceeding with development of the study design and data collection instruments.

IV. Overview of Study Design:

The study design provided for the independent and comparative assessments of CITE/CATLINE and the public catalog access module of ILS on two dimensions: technical performance and user acceptance (i.e., effectiveness from the users' standpoint). The study is unique, methodologically, in that it evaluates two online catalog systems within the same operational environment, utilizing the same staff, computer terminals, databases and patron population.

Technical performance was addressed by means of specially constructed verification protocols which systematically determined and documented the availability and performance of all required system features and attributes specified by the Study Group in a formal "requirements" document. Of particular interest were the search and display elements of CITE and ILS, and certain aspects of "user friendliness". (Both systems have been designed for direct end-user access.) This assessment of technical performance also made use of "stress" or "limits" testing which sought to elicit additional data on the outer ranges of system capabilities. All testing was carried out by a two person team highly skilled in online system use, and previously uninvolved in the design and development of CITE and ILS.

The concept of "user acceptance" is more difficult to operationally define and measure. In this study, user acceptance was addressed in three ways - each complementary in scope and methodology:

1. Administration of the 60-item objective format "CLR" survey questionnaire to patrons who conducted a catalog search on either CITE or ILS (n=300 for each system). For this purpose, CITE was made available for patron access during late April and May; and ILS (without CITE) was available thru most of the summer. The user questionnaire characterizes - among a large number of behavioral and attitudinal variables - the nature of users' search requirements, salient demographic factors, and satisfaction with specific interface features and search outcomes. Completion time is 15 minutes; we experienced a compliance rate better than 80%. A companion "non-user" questionnaire was also administered to a sample of n=300 patrons who had not used either online catalog. These questionnaires were developed as part of the Council on Library Resources (CLR) nationwide study of 17 online catalog systems. Use of the same survey instruments, with some modifications to meet specific NLM needs, permits comparisons with the findings of that study.

2. Conduct of a "Sample Search Experiment" which systematically exposed a panel of 20 NLM staffers (librarians and non-librarians) to both CITE and ILS under controlled field test conditions. The experimental sessions simulated representative uses of an online catalog across six common search types (personal and corporate author, conference, series, title, and subject). We utilized 14 specially selected search query pairs - matched by type and level of difficulty - so that a respondent did not repeat the same search question on both systems. Dependent measures of particular interest are user perceptions concerning the quantity and relevance of information retrieved, ease of use, adequacy of screen displays, and preferences (if any) between systems by search type, and overall. User feedback on specific system likes and dislikes, along with suggestions for features not now present, were also obtained via structured post-search interviews which, all together, averaged 1 1/4 hours per session. The "Sample Search Experiment" was conducted with NLM staff users during the month of August.

3. In September, we were in a position to make both CITE and ILS simultaneously available to NLM patrons in an effort to discern their likes, dislikes and system preferences after having had an opportunity to conduct a search of their own choosing - sequentially - on both systems. What we sacrificed in experimental control we hopefully made up in authenticity. Sixty patrons participated in this "Comparison Search Experiment," which utilized a number of the same structured interview questions used in the relatively more controlled but less realistic "Sample Search Experiment" conducted with staff. In both experiments, order of presentation of systems was alternated for "odd-even" users, and printouts of search activity were produced and retained for subsequent analysis. The latter enabled us to relate actual user searching behavior to stated system preferences and search outcomes.

V. Summary of Major Findings:

Users of the Computer Catalog

- Users of the computer catalog represent a broad cross section of professional roles/occupations
- Most users of the computer catalog are infrequent or first time visitors to the Library

Characteristics of Catalog Searches

- Most users of the computer catalog come with subject-related information
- Most users of the computer catalog are looking for books on a topic
- Most users of the computer catalog search by subject or topic

Computer Catalog vs the Card Catalog and COMCAT

- The computer catalog is preferred to the card catalog and COMCAT
- CITE users prefer the computer catalog to the card catalog in higher numbers
- Among patrons who have used COMCAT, preference for the computer catalog is equivalent for CITE and ILS users

User Satisfaction with CITE and ILS

- More information is found by users of CITE
- Satisfaction with search results is higher among users of CITE
- Overall satisfaction with the computer catalog is higher among users of CITE
- Professional role/occupation is unrelated to satisfation with CITE and ILS

Preference for CITE/ILS and Search Type

- CITE is preferred for subject searching
- CITE is preferred for title searching
- No clear-cut preference for CITE/ILS in performing other types of known item searches

CITE/ILS Displays

- CITE and ILS displays are, overall, equally acceptable to users

CITE/ILS Instructions

- CITE instructions, prompts, "help" messages are somewhat more effective

Technical Performance of CITE and ILS

Performance testing results, separately corroborated by findings from the three user studies, indicate that:

- CITE has no critical shortcomings and is essentially acceptable as is to the large majority of catalog users

- ILS meets most required system features/attributes, and performs more than satisfactorily on most types of catalog searches. However, its performance on subject-related searches can be substantially improved by the inclusion of several capabilities whose value has been demonstrated (e.g., greater correspondence between descriptor and text word searching, ability to search on multiple terms simultaneously, automatic weighting of retrieved records by frequency of search terms occurrence).*

VI. Recommendation:

On November 18, 1982, it was recommended to the Director, and accepted, that CITE/CATLINE be adopted as is for use by the NLM's patrons and non-technical staff, and that appropriate systems support be provided.

In addition, a very brief list of desirable system enhancements was presented to Dr. Doszkocs, along with a request for resource estimates to be prepared by him for review and approval by NLM management.

A recommendation for the adoption of CITE/CATLINE is consistent with several related operational considerations: acceptable reliability and stability of present CITE/CATLINE software; likelihood that NLM will pursue development

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*Mr. Goldstein will be presented with complete Study documentation concerning the technical performance and user acceptance of the ILS public catalog access module, including specific suggestions for enhancing the user interface. This will serve to make the ILS, of which the public catalog access module is only a single part, an even more attractive product for the nation's library community.

of "CITEHILL" independent of this study's outcome; additional resources required to support operation of ILS on dedicated minicomputer; and additional resources required to support maintenance and updating of separate ILS database.

Appendixes: (separately available)

A. Performance Testing - Presentation of Findings

B. User Acceptance - Results of Data Analyses Across Methods

C. CLR User Questionnaire (NLM Version)

D. CLR Non-User Questionnaire (NLM Version)

E. Sample Search Experiment - Search Questions (Odd/Even Versions)

F. Sample Search Experiment - Data Collector's Scoring Sheet

G. Comparison Search Experiment - Data Collector's Scoring Sheet

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APPENDIX A.

Performance Testing - Presentation of Findings

Verification Testing - Presentation of Findings

The attached material contains the following sections:

A) Background and Methodology

B) Search/Access Features

- -Summary chart outlining the "R" and "N" status elements for which no search/access is provided or for which access is limited
- -Summary of the "R" and "N" search/access features
- -Verification testing data - Discussion of search characteristics by element for each prototype system
- -User cordiality

C) Limits Testing

D) Display Features

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Task 2. Assess Technical Performance of Prototype Systems (CITE and ILS)

Objective 1. Verify presence/availability of required ("R) prototype system features and certain necessary ("N") features converted from "R" status

Objective 2. Document performance characteristics noted in verifying the features/capabilities.

Objective 3. Assess system performance capabilities with selected searches representing ambiguous or complex queries.

Background

The document "Requirements and Capabilities of an NLM-Based Online Catalog System" developed by the Online Catalog Study Group, February 24, 1982 formed the basis of the set of requirements to be verified. The specifications outlined in this document were drawn from several sources*, including the prior work of the NLM/LO Task Force to Evaluate Online Capability for Public Use, January 1982. The specifications addressed the following categories of system attributes:

Data Base Contents
Composition of Records
Search/Access Features
User Cordiality
Display Features
Auditing and Reporting

Verification testing procedures were developed for the features of search/access, user cordiality, and display. No verification testing procedures were developed for the attribute "Composition of Records" since the full set of required elements was reflected in the search/access features and the display features.

The original requirements, categorized as R - Required for test, N - Necessary for operational system, and O - Optional were developed with the input of Library staff in Reference Services Division and Technical Services Division. At the same time, the Study Group was considering the issues of which available online systems to include in the evaluation. The four candidate systems were: ELHILL CATLINE, CITE, ILS, and Paperchase (Beth Israel Hospital)

In the course of soliciting resource estimates for preparing the candidate systems for testing, CATLINE and Paperchase were ruled out as candidate systems on the basis of the resources required to make Paperchase available at NLM with the full set of CATLINE records and the technical resources required to effect any significant changes in CATLINE (ELHILL) at this time.

The requirements document was sent to the system developers of CITE and ILS, Dr. Tamas Doszkocs and Mr. Charles Goldstein, respectively. They were asked to prepare resource estimates for providing prototype test versions of their systems and estimates of resources required to incorporate the necessary features for an operational system.

Direct negotiations were undertaken by the Study Group with Dr. Doszkocs and Mr. Goldstein to work out an acceptable set of requirements for each system within the constraints of the study timetable and available personnel. This involved the shifting of a few features from "R" to "N" status. In other instances, the system developers were requested not to proceed with the implementation of certain features because of the time and resources required. In the judgment of the Study Group, the testing of both systems would still be made against a comparable set of performance requirements. For each system, a written "contract" was prepared, clarifying which features could be accommodated within reason in a test version and which features are feasible for future development of a potential operational system.

The revised list of features for CITE and ILS was used to modify or annotate the requirements list in preparation for verification testing. This revised document, called the "Features List" was reviewed by the Online Catalog Study Group and became the basis of the checklist used for verification testing. The verification testing was designed to determine objectively whether a given feature is present in either prototype system. Certain performance characteristics of each system, that is, how well or to what degree each system performs or satisfies the feature or attribute, are also to be noted in completing the test searches. However, to fully evaluate "maximum" performance, a third set of test parameters, called "limits testing", was developed. Limits testing is designed to elicit additional comparative data on each system in the handling of complex or ambiguous queries and queries known to retrieve large sets (numerous records).

Methodology:

Verification testing is the objective determination of whether a feature is present or not present in either system, CITE or ILS. A methodology was developed by the Working Group on Performance Testing (Ms. Sinn, Ms. Kamean, Dr. Siegel) for verification testing of each of three categories of attributes: 1) Search/access features; 2) User cordiality; and 3) Display features. The limits testing task was incorporated as a second phase of the Search/access verification.

1) Search Access

a) Objectives: Verify presence/availability of "required" and "necessary" search elements. Verify the availability of index displays, textword search capabilities, truncation, tolerance for variations in spacing, punctuation, spelling and special characters.

b) Methodology: Elements were selected from existing source CATLINE records known to be present in both systems. A total of 11 CATLINE records containing at least one of the searchable elements being verified were selected to include both monographs and serials, English and foreign languages and a range of entry dates (1976-1981) not to exceed the CATLINE subset already loaded for the ILS prototype system (as of 3/82 this included 1976-1981).

A full, detailed printout of each designated CATLINE record was obtained and annotated to indicate which elements were to be searched to retrieve that specific record in each system. In several cases, more than one record was used to test for an individual element, for example, each record contains a title, so several representative types of titles were employed in the search/access verification. The same elements from the same set of CATLINE records were checked in each system.

A checklist document was developed to accompany the CATLINE record printouts. The checklist provides space for documenting the following information about each search element:

Directly searchable	(Yes/No)
Specific record retrieved	(Yes/No)
Number of steps required	(Specify how many user responses/ actions necessary to retrieve specified record)
Index displayed	(Yes/No)
Element is textword searchable	(Yes/No)
Number of steps required	(Specify)
Element can be truncated	(Yes/No)
Number of steps required	(Specify)

For each element searched or feature tested, the verifiers were also asked to provide comments, as appropriate, noting any system characteristics or problems that either significantly enhanced or hindered the search/retrieval. Members of the Working Group reviewed verification testing results while testing was in progress in order to resolve any noticeable discrepancies in the findings and to clarify procedures and approach.

c) Verifiers: Two verification testers were selected from Library Operations' staff. A third individual was designated as alternate or back-up in case of scheduling problems with the primary verifiers. These individuals (Lou Knecht, MEDLARS Management Section, Pat Bosma, Selection/Acquisitions Section, and Barbara Bishop, Cataloging Section) are each experienced and competent in the use of online bibliographic retrieval systems and are familiar with cataloging and bibliographic information as it is reflected in CATLINE, but none had prior involvement in the development of either CITE or ILS nor any familiarity in using either of the prototype online catalog systems.

2) User Cordiality/Prompts/Online HELP features

Objectives: Verify presence/absence of system prompts, menus, online HELP features

Methodology: Obtain some information on the availability of prompts, menus and index displays from the Search/access verification testing. On a separate checklist, verifiers were asked to note all junctures at which the prototype system automatically generates prompts or HELP messages and those which must be user-generated. Verification of user cordiality also included comments on the appropriateness and clarity of all HELP messages.

Verifiers: Same verifiers as for the Search/access (Ms. Knecht, Ms. Bosma), with additional comments from S. Sinn, Working Group on Performance Testing.

3) Display Features

Objectives: Verify the presence/absence of "required" and "necessary" elements in the brief and full record displays

Methodology: The presence of required and necessary elements in the brief and full displays was verified by obtaining print-outs of the source CATLINE records used for verification of Search/access features augmented by additional sample records selected from CATLINE. It should be noted that for the ILS, the standard print display was defined as "brief" and the MARC-formatted version was defined as "full".

Verifiers: S. Sinn, Working Group on Performance Testing

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4) Limits Testing

Objective: Assess system performance capabilities with selected searches representing ambiguous or complex queries.

Methodology: Representative author, title, series, and subject searches were constructed based, in part, on typical kinds of problems encountered in searching other online systems. Other factors considered in designing the limits testing were the contents of the CATLINE data base and the existing capabilities/deficiencies of ELHILL CATLINE.

Verifiers: Same verifiers as for Search/access and User cordiality (Ms. Knecht and Ms. Bosma)

SEARCH/ACCESS

This chart briefly summarizes the "R" and "N" elements for search/access that were not available for search or for which the search capability is limited.

CITE

(Required "R" elements)

1. Subheadings (SH): Subheadings--topical, geographic, language, and form--are not searchable

2. Initial Year (Y1): Element is not directly searchable, but can be used to limit the number of items for display after retrieval of the initial set. User can enter the earliest publication date of interest.

3. Final Year (Y2): Element is not searchable or available for narrowing search

4. Unique Identifier (UI): Element is directly searchable, but this capability is not apparent to the user. Specific record can be retrieved by the Unique Identifier if it is entered as a search term under "Series, Conference Name, Organization, Call Number"

ILS

(Required "R" elements)

1. Subheadings (SH): None of the subheading types, topical, geographic, language or form, is directly searchable. They are displayed in the index of subject headings and may be selected as a subject heading qualifier to limit retrieval to a more specific topic. The subheadings used for a given subject heading are displayed in two alphabetical lists, topical subheadings first, followed by the geog., lang. and form subheadings as a group.

2. Initial Year (Y1): Element is not directly searchable, but it may be used to narrow search if the original retrieval exceeds 19 hits. The technique for narrowing a search by publication date is not well explained in the HELP message for "Narrowing Search" (/NS)

3. Final Year (Y2): Element is not directly searchable, but may be used in combination with Initial Year (Y1) to narrow a search. The actual procedure for limiting searches by publication date is not well ecplained in the HELP messages.

4. Title (TI): Only the first occurrence of the title field is indexed and searchable. Variant titles and titles of related works given as other occurrences of the title field (TI in CATLINE, 740 in MARC) are not retrievable.

5. Call Number (CA): Call Number of the Dashed-On Entry field is not searchable. The Dashed-On Entry field is not converted for MARC.

CITE

(Necessary "N" elements)

1. ISBN (BN): Specific ISBN is directly searchable if entered exactly as stored, but this search capability is not apparent to the user. ISBN must be entered under search category for Series, Conference Name, Organization, Call Number. The system displays the ISBN as searched without any element qualifier.

2. Country (CY): Not searchable

3. ISSN (IS): Directly searchable if entered exactly as stored, but search capability is not apparent to the user. Like the ISBN, the ISSN is searchable only under category "Series, Conference Name, Organization, Call Number". The system displays the ISSN as searched without any element qualifier.

4. Item Type (IT): Not searchable

5. Language (LA): Not directly searchable, but the value English is available for limiting the number of records to be displayed after retrieval. User can choose to dispaly English language items only.

6. Media (ME): Not searchable

7. MeSH Tree Number (MN): Not searchable

ILS

(Necessary "N" elements)

1. ISBN (BN): Element is searchable, but it must be input without the hyphens separating parts of the number. The format for storing ISBNs in MARC is without hyphens and the field was converted this way for ILS. This format characteristic is not well explained in the ILS system, and the problem is compounded by the inconsistency in ISSN search which must include the hyphen.

2. Country (CY): Not searchable

3. ISSN (IS): Searchable, but not consistent with the ISBN field

4. Item Type (IT): Not searchable

5. Language (LA): Not searchable

6. Media (ME): Not searchable

7. MeSH Tree Number (MN): Not searchable. This data is not converted for MARC.

	FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
C. 2.	Boolean logic on indexed fields ("and" "or")	N	No true Boolean capability	No true Boolean capability. Can combine certain sets in a secondary "narrowing" search, but this does not work for all search categories	
3.	Can logically combine elements in initial search statement	N	No	Only author & title as author/title search key	In both CITE and ILS can only combine terms from the same element, e.g. words in title
4.	Can browse indexes by:				
	Call Number (CA)	R	Yes	Yes	CITE: Index display results if search term(s) are right truncated sufficiently to make them nonunique i.e. the equivalent of a multi-meaning message in ELHILL
	Corporate Name (CN)	R	Yes	Yes	ILS: Initial search queries, even if unique and only one "hit" always result in index display
	Corporate Name as Subject (CS)	R	Yes- Displayed in same index as corporate name (CN)	Yes - Separate index from CN. Search as Subject.	
	MeSH headings/Subheadings (MH/SH)	R	No	Yes, subheadings are not indexed seaprately, but as qualifiers applied to specific MeSH heading. Two levels of index display: MeSH headings, and, upon selection of a MeSH heading, will get up the index from that index display of the subheadings. point.	There is a major design flaw in the ILS index displays. The index "window" begins too far forward in the alphabet when no exact match is found. User cannot browse

FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
(Index browse, Cont.)				
Personal Name (PN)	R	Yes	Yes	
Personal Name as Subject (PS)	R	Yes- Same index as Personal Name (PN)	Yes - Separate index from PN (Author search) Search as Subject.	
<u>Textword Searching</u>:				
Corporate Name Title Series (CE)	R	Yes	Yes - Conditional	CITE: textword search works only if entered under category of subject search (Subject search in CITE uses subject headings and textwords. The text words come from the CATLINE ELHILL TW index which includes: TI,TC, AS,SE,CE,PE,CN,CS,CNA)
Corporate Name (CN)	R	Yes	Yes - Conditional	
Conference Name (CNA)	R	Yes	Yes - Conditional	
Corporate Name as Subject (CS)	R	Yes	Yes - Conditional	
Personal Name Title Series	R	(Unable to verify, but should be treated same as SE and CE)	(Unable to verify, but should be treated same as SE and CE)	ILS: textword search can only be done with <u>single term</u> entered as term search. Cannot perform textword search under other categories such as author, title, unless the textword is the entry point of the heading in the index.
Series Title (SE)	R	Yes	Yes - Conditional	
Title (TI)	R	Yes	Yes - Conditional	
Title as Subject (TL)	R	(Unable to verify)	(Unable to verify)	
Uniform Title as Added Entry (UQ)	R	(Unable to verify)	(Unable to verify)	
Uniform Title (UA)	R	(Unable to verify)	(Unable to verify)	
Uniform Title as Subject (UTS)	R	(Unable to verify)	(Unable to verify)	

	FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
5.	Can display lists of related search terms	N	No - CITE will display ranked terms in subject search based on their frequency in records. These may or may not be related. *	No - all "lists" are alphabetical index displays	Authority file links for subjects and name/series, including see-related and see also references were not required for prototype systems.
6.	Can enter search term "right truncated"	R	Yes - CITE "stemming" routines in subject search automatically perform some right truncation in the course of selecting additional search terms to process.	Yes	In both systems, truncation requires no special symbol (as in the use of the colon (:) in ELHILL) Cannot truncate terms embedded in the search phrase

*Verifiers commented on their preference for selecting terms to be included rather than excluded.

FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
D. User Cordiality				ILS: Menu has no option for NONE, user must recognize that START or STEPBACK should be used to exit from menu or index display
2. Software provides:				
prompt/menu mode	R	Yes - Mixture of prompts and menus	Yes - Mixture of prompts and menus	
command mode	N	No	Yes - For some searches and functions. The "Ref" display will differ somewhat if pers. name is searched as Author from menu choice rather than as command "/AU= "	ILS: Provides 2 different syntaxes for input in searching pers. names. As Author search, the parts of name are entered on formatted screen, without commas as punctuation. As subject search or in command mode (/AU=), the name must be input with correct punctuation and spacing. The 'REF' display is different in these cases.
switchable menu and command mode	N	No	Yes - For some types of searches there is an option to select from menu or enter a command	
3. Online HELP facilities:				
System initiated	R	No	No	Both systems do generate some suggestions or messages as guides to the user. These are not separate HELP messages but are part of the prompt/ message programs.
User initiated	R	Yes - Same set of HELP messages available at any juncture or upon command at any time	Yes - CITE HELP messages are geared to coincide with the type of action required or search performed. Appropriate to the type of search and actions required of user	ILS: There are "loops" in the sequence of HELP messages where the user can get caught and the only way to exit is return to START

FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
4. System is lenient with regard to inconsistencies in syntax				CITE: Will tolerate some inconsistencies in spacing and punctuation only in subject search. It is rigorous in requiring exact input for series, names, call numbers, etc.
Spacing	R	No	No	
Punctuation	R	No	No	ILS: Intolerant of inconsistencies in spacing and punctuation for all searches except Term (which must be single word anyway)
Order of words	R	Yes - For subject searches	No	
Completeness of name	R	Yes	Yes - to a degree	(See truncation) Neither system will tolerate incomplete terms imbedded in a name or series search, e.g., Natl Lib of Med
Variant spelling	R	Yes - to a degree, only under Subject search. Terms not found in the index are displayed to user for response--they may be re-typed in case of typo or misspelling, or omitted from the search at the user's discretion	No	

FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
Specific Online HELP messages				
For Log-On	(These specific HELP messages were tested but were not specified as such in the requirements document)	Good - clear and concise	Clear, but should be explicit about use of the carriage return to start. "Press CR to continue" is not clear when user hasn't even begun. HELP feature is described differently on 'green' sheet vs. online.	
For printing hardcopy		None online	None online	
For initiating search		More information in the HELP messages to suggest how system processes queries could help user formulate strategies. The HELP instructs user on what to do next or how to respond to system, but does not explain anything about the logic of various search options	Online HELP message says enter /, /ES, or /NS, but CMD prompt only lists /ES and /NS	
For author search		Sufficient	Online HELP message does not adequately instruct in use of command mode, e.g. /AU= as shortcut to the selection from menu HELP message should clarify that only one REF # may be selected at a time.	

FEATURE/ATTRIBUTE	STATUS	CITE	ILS	COMMENT
(HELP messages Cont.)				
For title search		Sufficient	Sufficient	CITE HELP messages were found to be too brief and presume some knowledge of cataloging for effective searching of series, call #, organ. name, etc. (type 3)
For subject search		HELP message could provide more guidance in what is included in subject searching	Difference between subject search (MESH) and term search should be explained	
For textword/term search		None except as part of subject search Source of textwords (titles, names, etc.) should be explained to aid the user in formulating best strategy	Message should be clearer in describing term as single word	
Other		None	Call Number - required two steps to get to HELP message explaining call number	Verifiers requested more instructions on how to exit a search i.e., abort, and how to logoff or end a session
To narrow search		No explicit HELP message--see prompts	Narrow search options clearly explained	
Suggest alternate search strategies		Nothing explicit	None	Both systems could be improved by better explanation of subject versus term/textword search. Use of terms or textwords as alternate methods when other searches fail.

Limits Testing

Through perserverance and creative searching by the testers, there were no real system "failures" detected for either ILS or CITE. Some response, if not always relevant retrieval, was always obtained and neither system "collapsed" under testing. There were differences in performance characteristics and overall time required to complete some types of searches between the tyo systems. ILS frequently required more steps (user actions) to complete an ambiguous search, whereas the use of subject search on CITE allowed natural language phrases as input in one search formulation.

Both systems did exhibit some shortcomings or deficiencies in various categories of limits testing. These shortcomings are not necessarily related to "stress" factors, such as the size of retrieval or combination of highly posted terms. Many of the same shortcominqs were also detected in the search/access performance testinq.

The results of limits testinq on name and subject searchinq clearly point out the desirability of mapping to authority files for variant forms of names/subjects (See De la Cruz example under personal author category and Alzheimer's Disease under subjects).

Difficulties in achieving desired retrieval on corporate authors and series in both systems can be attributed to the lack of tolerance for inconsistencies in spacinq and/or punctuation upon input. This system rigidity can be partially overcome by utilizinq the term search in ILS and the subject search in CITE as the testers were occasionally required to do in order to retrieve any records.

The systems are nearly equivalent in their ability to handle personal and corporate authors with common (nonunique) names. Both provide the user with an index display, but CITE will permit the user to select all entries of the name from the index while ILS requires the user to specify each one individually.

CITE failed to display as many title matches under "Who's who" as ILS. This may be a result of the stopword list used in CITE or a problem with the stemming routines.

In subject searching, the capability of combining concepts in the initial search query on CITE made subject searchinq of multiple terms easier than the method of combining subjects/terms on ILS. ILS achieved qreater precision in subject searching with cataloqinq subheadinqs than CITE since these subheadings are indexed with the MeSH headings in ILS.

CITE has the capability of providinq the user with some variant spellings among the ranked term display in the subject search. However, this same capability does not exist for other search categories on CITE.

The word order of subject terms is not significant in the subject search on CITE. Because the subject search in ILS is by MeSH terms lonly, the word order is critical and must match the word order of the headinq in the index.

Neither system tolerates variation in word order under name and series searching.

LIMITS TESTING

OBSERVATIONS/RESULTS

Category	ILS	CITE
Personal Name Common Surname	No initial count on number of matches in index Begins index display of personal name headings from top of index alphabetically at a rate of 10 at a time, forward in index (backward only to point of entry in index) Gives number of catalog records for each unique heading, but not the sum total	Gives initial count on number of matches in index Begins index display of personal name headings from top of index alphabetically at a rate of 5 at a time, forward and backward limited only by reaching end of index. Gives number of catalog records for each unique heading, but not the sum total
Common Surname with 1st initial	Entering forename initial will narrow the search to entry at the point of the index of surnames with that initial. In ILS, this reduced the number of index entries from 33 to 31 In order to know total number of records retrieved user must browse index and count the number of catalog records for each unique heading To narrow search with forename initial or part of forename, user must begin a new search User is always given the index display even if name heading entered is unique in the index	Entering forename initial narrowed search from 828 index terms to 65 In order to know total number of records retreiv user must browse through index and count the number of catalog records for each unique heading To narrow search with forename initial or part of forename, user must begin a new search User is given index display only when name heading is not unique in the index
Compound Surname (Surnames composed of multiple "words" or prefixes such as "von", with or without hyphens)	Surname must be entered exactly as stored in the index, with correct word order and punctuation and hyphens	Surname must be entered exactly as stored in the index, with correct word order and punctuation and hyphens. A comma must be inserted at the end of the surname, otherwise, system will inse the comma as a default; for compound surnames the system presumes that the first "word" (up t the first space) is a simple surname and insert a comma (e.g. De la Cruz becomes De, la Cruz)
Diacritics	Not stripped out of data. Improper translation of diacritic characters in the ILS loading makes retrieval on terms with diacritics impossible unless user knows what characters the diacritics were mapped to	Stripped out of the data and disregarded in search. Headings must (should) be input without any diacritics. (There are no diacritic on the terminal keyboard)

LIMITS TESTING

OBSERVATIONS/RESULTS

Category	ILS	CITE
Corporate Author		
Common name without subdivisions (United States)	Total retrieval hampered by system intolerance for inconsistencies in form -- U.S. U. S. and United States. Shows United States and United States plus subdivisions alphabetically in index Not possible to specify all headings containing "United States" in corporate name search	Total retrieval hampered by system intolerance for inconsistencies in form Shows United States and United States plus subdivisions alphabetically in index When searching under series, conference, organ. name (type 3) the index display also includes "United States" as a MeSH term (i.e. subject) Possible to specify all headings containing "United States in organ. name search, but it requires paging through all headings in the index first
	The addition of punctuation (period) to United States limits the index display to one heading containing United States with a subdivision There is apparently a problem in handling internal and terminal punctuation in the indexing of name entries	The addition of punctuation (period) to United States retrieves index entries for corporate names and series headings with United States and subdivisions
Full corporate name in AACR2 format (with parenthetical qualifier)	Exact entry retrieves index entries for corporate name and corporate name with subdivisions Truncation of corporate name by omitting the parenthetical qualifier increases the retrieval significantly	Exact entry retrieves index entries for corporate name and corporate name with subdivisions Truncation of corporate name by omitting the parenthetical qualifier increases retrieval significantly

LIMITS TESTING
OBSERVATIONS/RESULTS

Category	ILS	CITE
Title		
Incomplete title (word which may be on stopword list)	Numerous (49) titles beginning with "Who's who" are retrieved with exact input of those characters	Title cannot be retrieved if input with apostrophe Potential title match occurs when title searche without apostrophe (2 titles found, but only 2nd one actually contained words "who's who".
Long title beginning with generic word "proceedings"	Title could not be retrieved as direct entry because it appears as title added entry on record and only the first occurrence of title field was indexed in ILS. (Record was found by one tester by performing term search)	Title found and was first in list displayed among 323 possible items
Truncation of same title	Cannot determine since title is not indexed	If truncate the title too early and omit significant key words, cannot retrieve this title among the first potential matches displayed
Serial title with multiple editions; title changes	Search retrieved 2 records--one for the earlier serial title--but no information relating this item to later title New serial title found by performing a new search on that title	448 records retrieved. American edition found by limiting display to English language items Information about relationship to new serial tit was found in a note on earlier record. New serial title found by performing new search on that title.

LIMITS TESTING

OBSERVATIONS/RESULTS

Category	ILS	CITE
Subjects MeSH heading with apostrophe (Alzheimer's Dis.)	MeSH heading not found in subject search Retrieval under term "Alzheimer" and "Alzheimer's" as term search Retrieval under MeSH term "Dementia, Presenile" in subject search included citations for Alzheimer's Dis. (Alxheimer's Dis. is a minor desciptor, see under Dementia, Presenile)	MeSH heading found in subject search, terms displayed in subject search included the singular form "Alzheimer" as a text word Presence or absence of apostrophe does not affect retrieval
Combination of two single MeSH terms both with high postings	Relevant retrieval obtained by combination of terms in term search. Recall = 2 items Numerous steps required to select terms and then combine them	Relevant retrieval obtained by entering the search phrase exactly as suggested. Recall = 151 items. One search query required and selection from ranked terms
MeSH heading qualified by cataloging sub-heading	Main heading qualified by subheading is indexed. 9 items retrieved in subject search Order of input must be observed: subheading cannot be entered first because it is not a primary index term. Must input main heading only and then select from list of subheadings applied to that main heading	Concept as reflected in the subheading (bibliographies) could only be approached through the main heading "Bibliography" or as it appears in textword index. Subheadings not indexed. Order of input does not affect retrieval. Same 23 items retrieved both ways.

LIMITS TESTING

OBSERVATIONS/RESULTS

Category	ILS	CITE
Punctuation Spelling variants tumor/tumour	Retrieval under both forms as long as each one is separately searched. Retrieval is different for each form No accommodation for spelling variants	Same retrieval possible under either form since both forms are presented as ranked search terms no matter which form is entered as search term
Truncation of term (stemming) Abort Abortion Aborting	Truncated form will display MeSH terms in the index or terms if entered as a term search, but selection of all terms requries many steps and user cannot consolidate retrieval of all items under the root word Best results were in using truncated form as term search	Truncated form retrieves MeSH terms and text words containing the root word
Hyphens and Spacing xrays x rays x-rays	Each form results in retrieval, but the retrieval differs for each No accommodation for variations in spacing or hyphenation	Retrieval is the same for term with or without hyphen. They are treated the same Retrieval differs for form without space. Spacing is significant
Word Order	Word order in subject search is critical since the entry must match MeSH term in index. Word order is not significant in term search since each term must be entered independently User cannot combine terms in initial term search	Word order in subject search is not significant Retrieval is the same either way

LIMITS TESTING
OBSERVATIONS/RESULTS

Category	ILS	CITE
Series Numbered series	Retrieval of series title with numbering is extremely tedious under option for series search Requires browsing through multiple pages of index displays. Further complicated by system intolerance for variations in spacing and punctuation that occur because of cataloging rule changes over the years Same series title may appear in widely separated parts of the index, making collocation impossible	Same experiences as for ILS As series search it is extremely difficult to retrieve specific issue number. Better to search as subject in order to get textword retrieval and then scan all records retrieved for specific issue
Conference Name Numbered conf.	Retrieval under conference name search requires entry exactly as name appears in the index Recall = 8 items, but tester unsure about precision Retrieval under term search was more direct Cannot substitute "eighth" for "8th"	Retrieval under subject search using textwords "Eighth" or "8th" made no difference in subject search because retrieval was based on other textwords used in search "Eighth" and "8th" are significant if used in conference name search; entry must be exact
NLM holdings		
CIP citation	Record found	Record found
Withdrawn	Record not retrieved. (Withdrawn items were excluded from ILS tape pulls as of 4/82) Other withdrawn items in ILS are displayed with the value "Withdrawn" in the call number	Record found Call number is "Withdrawn" No other message
Item not owned by NLM: cat. by cooperative library	Record found No call number displayed No other message	Record found No call number displayed Message: "This item not owned by NLM"

4-22

9/30 SKS

Verification of Display Features

Methodology:

The original requirements for the display of elements in full and abbreviated formats listed the elements as "required", "necessary" or "optional". Some of the "required" elements were later modified based on the final set of requirements for test systems negotiated with the system developers. The presence of required and necessary elements in the full and abbreviated displays was verified by checking at least two records containing the specified element in both systems. For the ILS, the MARC record display was defined as the full display and the standard display option given.

Summary of Display Elements:

Attachment A is a summary chart of the elements with the display requirements colded for Full (F) and Abbreviated (A) formats with checks indicating the presence of the element under both systems.

The chart also indicates elements that were not available in either system because they are not present in any of the source CATLINE records (e.g. uniform titles which have not yet been added to CATLINE). These elements should not present major problems for either system since the specifications are already defined to both CATLINE and the CATLINE/MARC conversion programs.

There are a number of elements included on the list in Attachment A that are considered local-data fields (e.g. Dashed-On entry, Holdings) for which there is no corresponding field in the MARC communications format. These elements were not transmitted in the CATLINE records converted for ILS loading so they were not included in the verification testing of displays. The Shelving Location field is an exeption since a special routine was implemented by OCCS to convert this data for the ILS MARC tapes.

The list below shows required and necessary elements that were not present in the full and abbreviated record displays for each system. The asterisk denotes those elements that are not present in the ILS records because they are local data fields not carried in the MARC format.

Required Elements

CITE	ILS
Full display	Full display
Conference Name	(all present)
First/Last Issue	
Abbreviated display	Abbreviated display
(all present)	Series Title
	Corporate Author/Title Seri

2. The compact paragraph format of the biliographic record is very difficult to read. Semicolons (;) are used in CITE to separate discreet elements. However, the semicolon is also used as standard ISBD punctuation within elements, so another way of separating elements in CITE should be considered.

3. The first occurrence of series fields (Series Title, Corporate/Author Title Series) is displayed before the Imprint in the brief display, but prints after the Collation in the full display. This seems unnecessarily confusing. (See Example 2)

   Order of brief display: SE, IM, CO
   Order of full display: IM, CO, SE (this is standard cataloging order)

   The personal name entires (PN) are displayed after the Statement of Responsibility (AS) and this is also very confusing.

ILS:

1. The option for displaying the full MARC record is not readily apparent to the user. This format is primarily for the use of catalogers and librarians accustomed to the MARC format. As is noted on the chart in Attachment A, some "necessary" elements for display occur in coded form in the MARC format and are not readily discernible to the non-librarian user. (See Example 3) If these elements retain their "necessary" status, they should be decoded and specifically identified for the user.

2. In the brief display of the Corporate Name field, the subordinate body in the second subfield ($b in MARC) is not displayed. The corporate name fields are indexed through subfield b and it is present in the full MARC format, but has been dropped in the abbreviated display. (See Example 4)

3. In the brief display, the title subfield of Personal Names ($t of 700 tags) is not displayed. The name contained in a 700 tag that has a title subfield is displayed twice even though there is only one occurrence of the 700 tag for that name. (See Example 5)

4. The order of display for corporate and personal name added entries differs for serials and monographs. For monographs, these fields precede the title, while for serials these added entries follow the subject headings at the end of the record. This may not be considered a significant difference, but there should be some rationale for it. The ILS does, however, have a good feature in highlighting the title and differentiating discreet elements.

9/30 SKS

Necessary Elements

Full display
- Autograph Note
- Bibliography Note
- ISBN
- Bound With Note

Full display
- *Autograph Note
- Bibliography Note
- *Dashed-On Entry
- GMD

Necessary Elements -- Full Display

CITE

- Corporate Name
- Contents Note
- Date of Entry
- Dissertation Note
- Dashed-On Entry
- GMD
- History Note
- Holdings
- Item Type
- LC Card Number
- Limited Use Note
- Last Revision Date
- Media
- Major Revision Date
- Open/Closed Indicator
- Personal Name as Subject
- Final Year

ILS

- Item Type
- Limited Use Note
- Media
- Major Revision Date

Abbreviated display
- Corporate Name
- General Notes
- Media
- MeSH Headings

Abbreviated display
- General Notes
- Media

In addition to elements not present, there were some deficiencies or discrepancies noted in the display of elements that were output in both of the systems. These are summarized here and illustrated in the attached examples of records printed from CITE and ILS.

CITE: 1. The first/Last Issue field for serials is displayed in the abbreviated display, but not in the full display. This is probably an oversight rather than an indication of any problem in the output of this element. (See Example 1)

ATTACHMENT A - VERIFICATION OF DISPLAY

	Element Name	Display	Status	CITE	ILS
*	Abstract	F	O		
		A	-		
*	Abstract & Index Tag	F	O		
		A	-		
*	Autograph Note	F	N		
		A	-		
	Authorship Statement	F	R	✓	✓
		A	R	✓	✓
	Bibliography Note	F	N		
		A	-		✓
	ISBN	F	N		
		A	-		✓
	Bound With Note	F	N		
		A	-		✓
	Call Number (NLM only)	F	R	✓	✓
		A	R	✓	✓
	Corporate Author/Title Series	F	R	✓	
		A	R		✓
	Corporate Name	F	N		✓
		A	N		✓
	Conference Name	F	R		✓
		A	O	✓	✓
	Collation	F	R	✓	✓
		A	R		✓
	Corporate Name as Subject	F	N		✓
		A	-		✓
	Contents Note	F	N		
		A	-		
*	Country of Publication	F	O		
		A	-		

F = Full Record Display
A = Abbreviated Record Display

R = Required for test system
N = Necessary for operational system
O = Optional

* Denotes local data field not converted in MARC format for ILS

** Denotes field not yet available in source CATLINE records

ATTACHMENT A - VERIFICATION OF DISPLAY

Element Name	Display	Status	CITE	ILS
Date of Entry	F	N		✓
	A	-		
Dissertation Note	F	N		✓
	A	-		
* Dashed On Entry	F	N		
	A	N		
Edition Statement	F	R	✓	✓
	A	R	✓	✓
First Last Issue	F	R		✓
	A	R	✓	✓
General Material Designation	F	N		
	A	-		
General Notes	F	R	✓ scr... only	✓
	A	N		
History Notes	F	N		✓
	A	-		
* Holdings	F	N		
	A	-		
Imprint	F	R	✓	✓
	A	R	✓	✓
ISSN	F	N	✓	✓
	A	-		
Item Type	F	N		
	A	-		✓ as coded value
Language	F	N	✓	✓ as coded value
	A	-	✓	
LC Card Number	F	N		✓
	A	-		
Limited Use Note	F	N		
	A	-		

F = Full Record Display
A = Abbreviated Record Display
* Denotes local data field not converted in MARC format for ILS
** Denotes filed not yet available in source CATLINE records

R = Required for test system
N = Necessary for operational system
O = Optional

ATTACHMENT A - VERIFICATION OF DISPLAY

	Element Name	Display	Status	CITE	ILS
	Last Revision Date	F	N		✓
		A	-		
	Language of Summaries	F	O		✓ as coded value
		A	-		
*	Media	F	N		
		A	N		
	MeSH Headings	F	R	✓	✓
		A	N		✓
	Major Revision Date	F	N		
		A	-		
*	Main Entry Type	F	-		
		A	-		
	Open/Closed Indicator	F	N		✓ as coded value
		A	-		
	Personal Author/Title Series	F	R		
		A	R		
	Personal Name	F	R	✓	✓
		A	R		✓
	Price	F	O		✓
		A	-		
	Personal Name as Subject	F	N		✓
		A	-		✓
*	Publisher	F	O		
		A	-		
	Revision Indicator	F	O		
		A	-		
*	Record Originator	F	-		
		A	-		
	Series Title	F	R	✓	✓
		A	R	✓	✓

F = Full Record Display
A = Abbreviated Record Display
R = Required for test system
N = Necessary for operational system
O = Optional
* Denotes local data field not converted in the MARC format for LIS
** Denotes field not yet available in source CATLINE records

ATTACHMENT A - VERIFICATION OF DISPLAY

	Element Name	Display	Status	CITE	ILS
*	Shelving Location	F	R	✓	✓
		A	R	✓	✓
	Title Continuation	F	R	✓	✓
		A	R	✓	✓
	Title	F	R	✓	✓
		A	R	✓	✓
	Title as Subject	F	N		
		A	-		
**	Uniform Title as Added Entry	F	N		
		A	-		
	Unique Identifier	F	R	✓	✓
		A	-		✓
**	Uniform Title	F	N		
		A	N		
**	Uniform Title as Subject	F	N		
		A	-		
	Initial Year	F	R	✓	✓ as coded value
		A	-	✓	
	Final Year	F	N		✓ as coded value
		A	-		
*	MeSH Tree Number	F	O		
		A	-		
		F			
		A			
		F			
		A			
		F			
		A			
		F			
		A			

F = Full Record Display
A = Abbreviated Record Display

R = Required for test system
N = Necessary for operational system
O = Optional

* Denotes local data field not converted in the MARC format for ILS

** Denotes field not yet available on CATLINE source records

EXAMPLE 1

CITE
serial

453,880 RECORDS SEARCHED

43 ITEMS CONTAIN ONE OR MORE OF THE SEARCH TERMS

NONE OF THE RECORDS MATCH YOUR SEARCH QUESTION EXACTLY

1/; Journal of alcohol and drug education.; v. 17, no. 2- winter 1972- ; Lansing, Mich.; v.; Eng; M:1972
CALL NUMBER; W1 JO534M;

1/; Journal of alcohol and drug education.; Lansing, Mich.; v.; Continues the Journal of alcohol education.; Issued 1972- by the Education Section of the Alcohol and Drug Problems Association of North America.; Key title: Journal of alcohol and drug education. ISSN 0090-1482.; 0351416; Eng; M:1972; Substance Abuse; Alcoholism; Health Education
CALL NUMBER; W1 JO534M;

CHOOSE THE ITEM(S) IN WHICH YOU ARE MOST INTERESTED

TYPE CHOICE NUMBER(S) OR NUMBER RANGE(S) OR ALL
or type X (to start new search), or type STOP
:

First/Last Issue field

A-31

CITE
monograph

EXAMPLE 2

24 ITEMS MATCH YOUR SEARCH QUESTION CLOSELY

1/; Use of heteroploid and other cell substrates for the production of biologicals; / editor, W. Hennessen.; Hennessen, W.; Developments in biological standardization ; v. 50; Basel ; New York ::Karger,:c1982.; Eng; S:1982

<< THIS ITEM IS NOT YET OWNED BY NLM >>

:2

1/; Use of heteroploid and other cell substrates for the production of biologicals; / editor, W. Hennessen.; Hennessen, W.; Basel ; New York :: Karger,:c1982.; Developments in biological standardization ; v. 50; ataloging in publication.; 8205062; Eng; S:1982; Biological Products; Cell ine

<< THIS ITEM IS NOT YET OWNED BY NLM >>

CHOOSE THE ITEM(S) IN WHICH YOU ARE MOST INTERESTED

TYPE CHOICE NUMBER(S) OR NUMBER RANGE(S) OR ALL
or type X (to start new search), or type STOP

:

series

ILS A-3

EXAMPLE 3

monograph

W1 S0851F no.16 1981

Collins, C. H.
Society for Applied Bacteriology.

Disinfectants, their use and evaluation of effectiveness / edited by C.H. Collins ... [et al.].
London ; New York : Academic Press, 1981.
xvi, 229 p. : ill. 8203467

Disinfectants - congresses
Sterilization - congresses

Press <RETURN> to display next item, or
enter /AU for author, /TI for title, /SU for subject, /TM for term search.

CHOICE:

no added entry for the series of which this is volume 16

```
008  ' '   a 820211  b s   c 1981   d        e en   f a      j     x eng
              m       p      q 1   r 0    s 1    t 0    v 0    w
              y      z d
010  ' '   a 80-41631
020  ' '   a 0121813800
040  ' '   a DNLM   c DNLM
060  ' '   a W1 S0851F no.16 1981   a [QV 220 D6104 1979]
245  '00'  a Disinfectants, their use and evaluation of effectiveness /
              c  edited by C.H. Collins ... [et al.].
260  '0 '  a London ; New York :   b Academic Press,   c 1981.
300  ' '   a xvi, 229 p. :   b ill.
440  ' 4'  a TheSociety for Applied Bacteriology technical series ;
              no.   v 16
500  ' '   a "This volume includes contributions to the Autumn
              Demonstration Meeting of the Society for Applied
              Bacteriology which was held on 24 October 1979 at the
              Polytechnic of the South Bank, London."
650  ' 2'  a Disinfectants   x congresses
650  ' 2'  a Sterilization   x congresses
700  '10'  a Collins, C. H.
710  '20'  a Society for Applied Bacteriology.
XCL        a 820211s1981      enka          10100 eng d
YYY  ' '   a 00958  b n   c a   d m  e 2   f 2   g 00217   h       i
```

Initial year   Item type

A-33

ILS

Serial

EXAMPLE 4

W1
JO534M

Journal of alcohol and drug education.
v. 17, no. 2- winter 1972-
Lansing, Mich.
v. 0351416

Substance Abuse - prevention & control - periodicals
Alcoholism - prevention & control - periodicals
Health Education - periodicals
→ Alcohol and Drug Problems Association of North America.

Press <RETURN> to display next item, or
enter /AU for author, /TI for title, /SU for subject, /TM for term search.

CHOICE:

MARC FORMAT OF RECORD:

```
008   ' '   a 730305  b c  c 1972  d 9999  e xx  f u  g u  h  i
            p  j  k  m  n  p  q 0  r u  s u  t u  v
            a  w 0  x eng  y  z d
022   ' '   a 0090-1482
040   ' '   a DNLM  c DNLM
060   ' '   a W1 JO534M
222   '00'  a Journal of alcohol and drug education
245   '00'  a Journal of alcohol and drug education.
260   '00'  a Lansing, Mich.
300   ' '   a v.
350   ' '   a 4.00 (journal price)
362   '0 '  a v. 17, no. 2-  winter 1972-
550   '0 '  a Issued 1972-  by the Education Section of the Alcohol
              and Drug Problems Association of North America.
650   ' 2'  a Substance Abuse  x prevention & control  x periodicals
650   ' 2'  a Alcoholism  x prevention & control  x periodicals
650   ' 2'  a Health Education  x periodicals
710   '20'  a Alcohol and Drug Problems Association of North America.  b
              Education Section.
780   '00'  t Journal of alcohol education
XCL   ' '   a 730305c19729999xx uu p  0uuuu0eng d
YYY   ' '   a 00916  b c  c a  d s  e 2  f 2  g 00253  h I  i
```

EXAMPLE 5

```
WZ        Darwin, Charles Robert
100       Barrett, Paul H.  ←
D228c     Barrett, Paul H.
1974
          Darwin on man:a psychological study of scientific creativity.
           By Howard E.Gruber, together with Darwin's early and
          unpublished notebooks, transcribed and annotated by Paul H.
          Barrett.
          New York, Dutton, 1974.
          xxv, 495 p. illus.,ports.   7500589

          Creativeness
          Evolution - history

Press <RETURN> to display next item, or
enter /AU for author, /TI for title. /SU for subject, /TM for term search.

CHOICE:
```

```
MARC FORMAT OF RECORD:

008   ' '   a 750215   b s   c 1974   d   e us   f ac   j   k   x eng
               m      p      q 0   r 0   s 1   t 0   v 0   w
              y    z d
010   ' '   a 76-122778
020   ' '   a 0525088776
040   ' '   a DNLM   c DNLM
060   ' '   a WZ 100 D228c 1974
245   '00'  a Darwin on man:   b a psychological study of scientific
              creativity.   c   By Howard E.Gruber, together with
              Darwin's early and unpublished notebooks, transcribed
              and annotated by Paul H. Barrett.
250   ' '   a [1st ed.]
260   '0 '  a New York,   b Dutton,   c 1974.
300   ' '   a xxv, 495 p.   b illus.,ports.
350   ' '   a 20.00
650   ' 2'  a Creativeness
650   ' 2'  a Evolution   x history
700   '10'  a Darwin, Charles [illegible]   d 1809-1882.
700   '1 '  a Barrett, Paul H. [illegible] s early and unpublished
              notebooks.
700   ''
XCL   ' '   a 750215s1974   us ac            00100 eng d
YYY   ' '   a 00860   b n   c a   d m   e 2   f 2   g 00229   h   i
                j 4   k 5   m 0
ZZZ   ' '   b 7500589   c 811030

Press <RETURN> to display next item, or
enter /AU for author, /TI for title. /SU for subject, /TM for term search.

CHOICE:
```

APPENDIX B.

User Acceptance - Results of Data Analyses Across Methods

USERS OF THE COMPUTER CATALOG REPRESENT A BROAD CROSS SECTION OF PROFESSIONAL ROLES/OCCUPATIONS.

	CITE	ILS	COMBINED
HEALTH CARE PRAC	(28)	(34)	(62)
	9.4 %	11.3 %	10.4 %
HEALTH PROF EDU	(18)	(19)	(37)
	6.1	6.3	6.2
RESEARCHER - BIOMED	(32)	(43)	(75)
	10.8	14.2	12.5
RESEARCHER - OTHER	(31)	(54)	(85)
	10.4	17.9	14.2
STUDENT - HEALTH	(48)	(23)	(71)
	16.2	7.6	11.9
STUDENT - GRAD	(42)	(41)	(83)
	14.1	13.6	13.9
STUDENT - UNDERGRAD	(17)	(20)	(37)
	5.7	6.6	6.2
OTHER PROF	(71)	(59)	(130)
	23.9	19.5	21.7
OTHER	(10)	(9)	(19)
	3.4	3.0	3.2
NT	(297)	(302)	(599)

SIG. χ^2

MOST USERS OF THE COMPUTER CATALOG ARE INFREQUENT OR FIRST TIME VISITORS TO THE LIBRARY.

	NLM	CUM % NLM	CUM % CLR AGG
DAILY	5.6%	5.6%	25.8%
WEEKLY	15.4	21.1*	68.2*
MONTHLY	20.9	42.0	86.7
4 TIMES YEAR	20.6	62.6	94.0
ONCE A YEAR	12.8	75.4	95.7
NOT BEFORE TODAY	24.6	100.0	100.0
NT	(607)		

* NLM DIFFERS FROM CLR AGGREGATE

MOST USERS OF THE COMPUTER CATALOG COME WITH SUBJECT-RELATED INFORMATION.

	NLM	CLR AGG
SUBJECT HEADING(S)	52.9%	44.4 %
COMPLETE AUTHOR'S NAME	38.0	41.9
COMPLETE TITLE	33.9	39.3
TOPIC WORD(S)	40.7	28.7
PART AUTHOR'S NAME	15.4	12.7
PART TITLE	6.9	10.9
CALL NUMBER	1.5	6.1

- NLM COMPARABLE TO CLR AGGREGATE
- CITE/ILS SAMPLES COMPARABLE

MOST USERS OF THE COMPUTER CATALOG ARE LOOKING FOR BOOKS ON A TOPIC.

	NLM	CLR AGG
BOOKS ON TOPIC/SUBJECT	67.7 %	53.4 %
SPECIFIC BOOK	44.9	50.1
BOOKS BY/ SPECIFIC AUTHOR	23.3	23.7
IF BOOK AVAILABLE	7.3	16.8
OTHER	4.8	12.7

- NLM COMPARABLE TO CLR AGGREGATE
- CITE/ILS SAMPLES DIFFER IN MAGNITUDE:

		CITE		ILS	
BOOKS ON TOPIC/SUBJECT	(223)	74.1 %	>	61.3 %	(184)
SPECIFIC BOOK	(117)	38.9 %	<	51.0 %	(153)

COMPARISON SEARCH EXPT N = 60 PATRONS

BOOKS ON TOPIC/SUBJECT	(35)	58.4 %
KNOWN-ITEM (SPECIFIC)	(25)	41.6 %

MOST USERS OF THE COMPUTER CATALOG SEARCH BY SUBJECT OR TOPIC.

	NLM	CLR AGG
SUBJECT HEADING(S)	56.6%	43.4%
COMPLETE AUTHOR'S NAME	33.4	38.0
COMPLETE TITLE	30.1	35.5
TOPIC WORD(S)	42.1	29.9
PART AUTHOR'S NAME	18.5	15.0
PART TITLE	10.8	14.2
CALL NUMBER	1.4	5.2

- NLM COMPARABLE TO CLR AGGREGATE
- CITE/ILS SAMPLES COMPARABLE

CITE USERS PREFER THE COMPUTER CATALOG TO THE CARD CATALOG IN HIGHER NUMBERS.

	CITE		ILS	CLR AGG
BETTER	(245) 91.4%	>	(198) 75.9%	74.5%
EQUAL	(13) 4.9%		(33) 12.6	16.5%
WORSE	(10) 3.7%	<	(30) 11.5	9.0%
~ NT	(268)		(261)	

SIG. χ^2

AMONG PATRONS WHO HAVE USED COMCAT, PREFERENCE FOR THE COMPUTER CATALOG IS EQUIVALENT FOR CITE AND ILS USERS.

	CITE	ILS
BETTER	(132) 82.5%	(115) 74.7%
EQUAL	(22) 13.8%	(27) 17.5
WORSE	(6) 3.7%	(12) 7.8
NT	(160)	(154)

N.S. χ^2

MORE INFORMATION IS FOUND BY USERS OF CITE.

	CITE	ILS	CLR AGG
MORE THAN/ALL LOOKING FOR	(151)	(106)	
	50.0%	> 35.7%	44.1%
SOME	(132)	(145)	
	43.7	48.8	39.6
NOTHING	(19)	(46)	
	6.3	< 15.5	16.3
NT	(302)	(297)	

SIG. χ^2

COMPARISON SEARCH EXPT N = 60 PATRONS

SUBJECT SEARCHERS (N = 35) "FOUND MORE INFO ON..."

CITE	(25)	71%
ILS	(6)	18
N.D.	(4)	11

KNOWN-ITEM SEARCHERS (N = 25) FOUND MOST ITEMS ON BOTH SYSTEMS -- CONFOUNDED BY TRANSFER EFFECT?

SAMPLE SEARCH EXPT N = 20 STAFF

"FOUND MORE INFO (PUBLISHED SINCE 1974) USING..."

CITE	(15)	75%
ILS	(1)	
N.D.	(4)	

6

SATISFACTION WITH SEARCH RESULTS IS HIGHER AMONG USERS OF CITE.

	CITE	ILS		CLR AGG
VERY SATISFACTORY	(186)	(118)		
	61.6% >	39.2%	91.7	46.5%
SOMEWHAT SATISFACTORY	(91)	(119)	VS	
	30.1	39.5	78.7	33.6
SOMEWHAT UNSATISFACTORY	(12)	(33)		
	4.0	11.0	8.3	10.4
VERY UNSATISFACTORY	(13)	(31)	VS	
	4.3 <	10.3	21.3	9.5
N_T	(302)	(301)	SIG. χ^2	

COMPARISON SEARCH EXPT N = 60 PATRONS

"SEARCH RESULTS MOST SATISFACTORY ON..."

CITE	(31)	52%
ILS	(14)	23
N.D	(15)	25

OVERALL SATISFACTION WITH THE COMPUTER CATALOG IS HIGHER AMONG USERS OF CITE.

	CITE	ILS		CLR AGG
VERY FAVORABLE	(253)	(195)		
	84.1%	> 64.8%	97.4	67.0%
SOMEWHAT FAVORABLE	(40)	(66)	VS	
	13.3	21.9	86.7	25.4
SOMEWHAT UNFAVORABLE	(7)	(25)		
	2.3	8.3	2.6	5.3
VERY UNFAVORABLE	(1)	(15)	VS	
	.3	< 5.0	13.3	2.3
N_T	(301)	(301)		

SIG. χ^2

COMPARISON SEARCH EXPT N = 60 PATRONS

"WOULD USE AGAIN..."

CITE	(33)	55%
ILS	(12)	20
NO PREF.	(15)	25

SAMPLE SEARCH EXPT N = 20 STAFF

"OVERALL PREFERENCE IS FOR..."

CITE (12) 60%
- STRONG (7)
- MODERATE (4)
- SLIGHT (1)

ILS (3)
- STRONG (—)
- MODERATE (1)
- SLIGHT (2)

NO PREF (5) 25%

PROFESSIONAL ROLE/OCCUPATION IS UNRELATED TO SATISFACTION WITH CITE AND ILS.

FINDING CONSISTENT FOR:

- NLM/CLR USER SURVEY (N = 600)
- SAMPLE SEARCH EXPT (N = 20)
  LIBRARIAN/NON-LIBRARIAN
- COMPARISON SEARCH EXPT (N = 60)

CITE IS PREFERRED FOR SUBJECT SEARCHING.

"A COMPUTER SEARCH B/ SUBJECT IS DIFFICULT..."

	CITE		ILS	
STRONGLY DISAGREE	(92) 35.7%	>	(52) 20.5%	69.8
DISAGREE	(88) 34.1		(96) 37.8	VS 58.3
NEITHER A OR D	(22) 8.5		(33) 6.4	
AGREE	(41) 15.9		(42) 8.2	21.7
STRONGLY AGREE	(15) 5.8	<	(31) 12.2	VS 20.4
N_T	(258)		(254)	

SIG. χ^2

COMPARISON SEARCH EXPT N = 35 SUBJECT SEARCHES

	CITE	ILS	N.D.
"FOUND MORE INFO USING ___"...	(25) 71%	(6) 17%	(4) 11%
"EASIER TO USE ..."	(16) 46%	(4) 11%	(15) 43%
"SEARCH MOST SATISFACTORY USING..."	(25) 71%	(7) 20%	(3) 9%
"WOULD USE AGAIN..."	(23) 66%	(5) 14%	(7) 20%

SAMPLE SEARCH EXPT N = 20 STAFF

	CITE	ILS	N.D.
"FOUND LARGEST PROP. RELEVANT INFO..." (PUB. SINCE 1974)	(13) 65%	(2) 10%	(5) 25%
"EASIER TO CONDUCT SEARCH USING..."	(16) 80%	(2) 10%	(2) 10%
"SEARCH MOST SATISFACTORY USING..."	(16) 80%	(1) .5%	(3) 1.5%

SUBJECT SEARCH FAILURES:
(1/40) .3% ON CITE VS. (19/40) 47.5% ON ILS

CITE IS PREFERRED FOR TITLE SEARCHING.

"A COMPUTER SEARCH BY TITLE IS DIFFICULT..."

	CITE	ILS	
STRONGLY DISAGREE	(98)	(68)	50.3 VS 70.1
	44.7% >	31.8%	
DISAGREE	(78)	(82)	
	35.6	38.3	
NEITHER A OR D	(15)	(33)	
	6.8	15.4	
AGREE	(19)	(20)	12.8 VS 14.4
	8.7	9.3	
STRONGLY AGREE	(9)	(11)	
	4.1	5.1	
NT	(219)	(214)	

SIG. χ^2

SAMPLE SEARCH EXPT N = 20 STAFF

	CITE	ILS	N.D.
"FOUND LARGEST PROP. RELEVANT INFO" (PUB. SINCE 1974)	(14) 70%	(2) 10%	(4) 20%
"EASIER TO CONDUCT SEARCH USING..."	(13) 65%	(3) 15%	(4) 20%
"SEARCH MOST SATISFACTORY USING..."	(12) 60%	(3) 15%	(5) 25%

TITLE SEARCH FAILURES:
(0/20) 0% ON CITE VS. (13/20) 65% ON ILS

NO CLEAR-CUT PREFERENCE FOR CITE/ILS IN PERFORMING OTHER TYPES OF KNOWN ITEM SEARCHES.

TREND SUGGESTIVE OF SLIGHT PREFERENCE FOR CITE / OR NO DIFFERENCE BETWEEN SYSTEMS, BASED ON FINDINGS FROM:

- NLM/CLR USER SURVEY
- COMPARISON SEARCH EXPT
  (N: 25 KNOWN-ITEM PATRON SEARCHES)
- SAMPLE SEARCH EXPT
  (N=20 STAFF SEARCHES ON AUTHOR-PERSONAL, SERIES, CONFERENCE; SLIGHT PREFERENCE FOR ILS ON AUTHOR-CORPORATE)

CITE AND ILS DISPLAYS ARE, OVERALL, EQUALLY ACCEPTABLE TO USERS.

	CITE		ILS
"SCANNING THRU LONG DISPLAY (FORWARD OR BACKWARD) EASY"			
DISAGREE	(70) 27.2%	>	(43) 11.8%
AGREE	(133) 51.7%	<	(176) 69.0%
NT	(57)		(255)
			SIG. χ^2

"UNDERSTANDING DISPLAY FOR SINGLE BOOK IS EASY" N.S. χ^2 ≈ 89% AGREE

"UNDERSTANDING DISPLAY SHOWING MORE THAN SINGLE BOOK DIFFICULT" N.S. χ^2 ≈ 78% DISAGREE

"ORDER IN WHICH ITEMS DISPLAYED EASY TO UNDERSTAND" N.S. χ^2 ≈ 70% AGREE

SAMPLE SEARCH EXPT

N = 20 STAFF

"THE DISPLAY OF INFORMATION ON THE TERMINAL SCREEN IS MOST SATISFACTORY USING..."

CITE	(9)	45%
ILS	(8)	40%
N.D.	(3)	15%

COMPARISON SEARCH EXPT

N=16 DISPLAY-RELATED COMMENTS:

PREF. CITE (2)
PREF. ILS (F)
NO PREF (6)

CITE INSTRUCTIONS, PROMPTS, "HELP" MESSAGES ARE SOMEWHAT MORE EFFECTIVE.

		CITE		ILS
"UNDERSTANDING EXPLANATIONS ON SCREEN DIFFICULT"	DISAGREE	(257) 86.2%	>	(221) 74.7%
SIG. χ^2	AGREE	(27) 9.0	<	(51) 17.2
"UNDERSTANDING INITIAL INSTRUCTIONS ON SCREEN DIFFICULT"	DISAGREE	(239) 81.8%	>	(207) 72.6%
SIG. χ^2	AGREE	(32) 11.0	<	(56) 19.6

"SIGNS AND BROCHURES NOT VERY USEFUL" N.S. χ^2 ≥ 60% DISAGREE

SAMPLE SEARCH EXPT N = 20 STAFF

"ONLINE INSTRUCTIONS, PROMPTS AND HELP MESSAGES ARE MOST SATISFACTORY USING..."

CITE	(12)	60%
ILS	(2)	10%
N.D.	(6)	30%

COMPARISON SEARCH EXPT N = 60 PATRONS

"IN GENERAL, IT IS EASIER TO USE..."

CITE	(26)	43%
ILS	(10)	17%
N.D.	(24)	40%

APPENDIX C.

CLR User Questionnaire (NLM Version)

Council on Library Resources

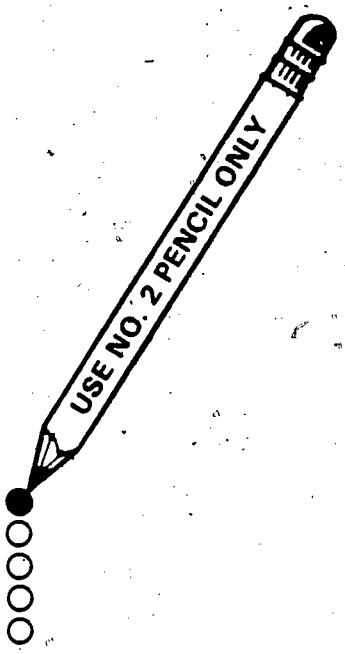
COMPUTER CATALOG STUDY

User Questionnaire

The library is conducting a study of its computer catalog to improve it. This questionnaire is a way to communicate your views. It should take you only about 15 minutes to complete. Your responses are confidential. Please do not write your name anywhere on the questionnaire. Thank you.

MARKING INSTRUCTIONS

- USE A NO. 2 PENCIL ONLY.
- FILL THE CIRCLES COMPLETELY.
- BE SURE TO ERASE CLEANLY ANY MARKS YOU WISH TO CHANGE.
- MAKE NO STRAY MARKS ON THIS QUESTIONNAIRE.



22989

DO NOT WRITE IN THIS AREA

C-2

PART 1: ABOUT YOUR MOST RECENT SEARCH

INSTRUCTIONS: Please answer these questions about the computer catalog search you just completed.

1. I came to this computer search with:
(Mark ALL that apply)

- a. A complete author's name ..... O
- b. Part of an author's name ..... O
- c. A complete title ..... O
- d. Part of a title ..... O
- e. A topic word or words ..... O
- f. A subject heading or headings ..... O
- g. A complete call number ..... O
- h. Part of a call number ..... O

2. By searching this computer catalog I was trying to find:
(Mark ALL that apply)

- a. A specific book, journal or magazine ..... O
- b. Books, journals or magazines on a topic or subject ..... O
- c. Books by a specific author ..... O
- d. Information such as publisher, date, spelling of a name, etc. ..... O
- e. If a book that I know the library has is available for my use ..... O
- f. Another library that has a book, journal or magazine that I want ..... O

3. I searched for what I wanted by:
(Mark ALL that apply)

- a. A complete author's name ..... O
- b. Part of an author's name ..... O
- c. A complete title ..... O
- d. Part of a title ..... O
- e. A topic word or words ..... O
- f. A subject heading or headings ..... O
- g. A complete call number ..... O
- h. Part of a call number ..... O

4. I need this information for:
(Mark ALL that apply)

- a. Recreational uses ..... O
- b. Making or fixing something ..... O
- c. My work or job ..... O
- d. Personal interest ..... O
- e. A hobby ..... O
- f. Class or course reading ..... O
- g. A course paper or report ..... O
- h. A thesis or dissertation ..... O
- i. Writing for publication ..... O
- j. Teaching or planning a course ..... O
- k. Keeping up on a topic or subject ..... O

5. In this computer search I found:
(Mark ONE only)

- a. More than I was looking for ..... O
- b. All that I was looking for ..... O
- c. Some of what I was looking for ..... O
- d. Nothing I was looking for ..... O

6. In relation to what I was looking for, this computer search was:
(Mark ONE only)

- a. Very satisfactory ..... O
- b. Somewhat satisfactory ..... O
- c. Somewhat unsatisfactory ..... O
- d. Very unsatisfactory ..... O

7. I came across things of interest other than what I was looking for:

- a. YES ..... O
- b. NO ..... O

8. I got help in doing this computer catalog search from:
(Mark ALL that apply)

- a. Printed material or signs ..... O
- b. Instructions on the terminal screen ..... O
- c. Library staff member ..... O
- d. Person nearby ..... O
- e. I did not get help ..... O

9. My overall or general attitude toward the computer catalog is:
(Mark ONE only)

a. Very favorable ○
b. Somewhat favorable ○
c. Somewhat unfavorable ○
d. Very unfavorable ○

10. Compared to the card, book, or microfiche catalog in this library, the computer catalog is:
(Mark ONE only)

a. Better ○
b. About the same ○
c. Worse ○
d. Can't decide ○

PART 2: YOUR EXPERIENCE WITH COMPUTER CATALOG FEATURES

INSTRUCTIONS: Mark the single column for each question that corresponds most closely to how you feel. If the statement does not apply to your experience at the computer catalog, mark the column, "Does Not Apply".

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	DOES NOT APPLY
11. A computer search by title is difficult	○	○	○	○	○	○
12. A computer search by author is easy	○	○	○	○	○	○
13. A computer search by subject is difficult	○	○	○	○	○	○
14. A computer search by call number is easy	○	○	○	○	○	○
15. A computer search by combined author/title is difficult	○	○	○	○	○	○
16. Remembering commands in the middle of the search is easy	○	○	○	○	○	○
17. Finding the correct subject term is difficult	○	○	○	○	○	○
18. Scanning through a long display (forward or backward) is easy	○	○	○	○	○	○
19. Increasing the result when too little is retrieved is difficult	○	○	○	○	○	○
20. Reducing the result when too much is retrieved is easy	○	○	○	○	○	○
21. Understanding explanations on the screen is difficult	○	○	○	○	○	○
22. Using codes or abbreviations for searching is easy	○	○	○	○	○	○
23. Abbreviations on the screen are easy to understand	○	○	○	○	○	○
24. Locating call numbers on the screen is difficult	○	○	○	○	○	○
25. Searching with a short form of a name or a word (truncation) is easy	○	○	○	○	○	○

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	DOES NOT APPLY
26. Using logical terms like AND, OR, NOT is difficult	○	○	○	○	○	○
27. Remembering the exact sequence or order of commands is easy	○	○	○	○	○	○
28. Understanding the initial instructions on the screen is difficult	○	○	○	○	○	○
29. Understanding the display for a single book, journal or magazine is easy	○	○	○	○	○	○
30. Understanding the display that shows more than a single book, journal or magazine is difficult	○	○	○	○	○	○
31. Interrupting or stopping the display of information is easy	○	○	○	○	○	○
32. Typing in exact spelling, initials, spaces and hyphens is difficult to do	○	○	○	○	○	○
33. Knowing what is included in the computer catalog is easy to remember	○	○	○	○	○	○
34. The order in which items are displayed is easy to understand	○	○	○	○	○	○
35. Displayed messages are too long	○	○	○	○	○	○

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE	DOES NOT APPLY
36. Selecting from a list of choices takes too much time	O	O	O	O	O	O
37. Entering commands when I want to during the search process is difficult	O	O	O	O	O	O
38. The rate at which the computer responds is too slow	O	O	O	O	O	O
39. The availability of signs and brochures is adequate	O	O	O	O	O	O
40. Signs and brochures are not very useful	O	O	O	O	O	O
41. The staff advice is often not helpful	O	O	O	O	O	O
42. It is hard to find a free terminal	O	O	O	O	O	O

YOU ARE MORE THAN HALF - WAY DONE

PART 3: IMPROVING THE COMPUTER CATALOG

INSTRUCTIONS: Select the response or responses that best reflect your views about changes that should be made in the computer catalog.

43. When I use the computer catalog terminal: (Mark YES or NO)

	YES	NO
a. The keyboard is confusing to use	O	O
b. There is too much glare on the screen	O	O
c. The letters and numbers are easy to read	O	O
d. The lighting around the terminal is too bright	O	O
e. There is enough writing space at the terminal	O	O
f. Nearby noise is distracting	O	O
g. The terminal table is too high or too low	O	O
h. The printer is easy to use	O	O

44. Select up to FOUR additional features you would like this computer catalog to have:

- a. Providing step by step instructions O
- b. Searching by any word or words in a title O
- c. Searching by any word or words in a subject heading O
- d. Limiting search results by date of publication O
- e. Limiting search results by language O
- f. Ability to search by journal title abbreviations O
- g. Ability to change the order in which items are displayed O
- h. Ability to view a list of words related to my search words O
- i. Ability to search for illustrations and bibliographies O
- j. Ability to search by call number O
- k. Ability to print search results O
- l. Ability to search a book's table of contents, summary or index O
- m. Ability to know if a book is checked out O
- n. Ability to tell where a book is located in the library O
- o. None O

45. Select up to FOUR computer catalog service improvements you would like the library to make:

- a. More terminals O
- b. Terminals at locations other than near the card catalog O
- c. Terminals at places other than library buildings O
- d. A chart of commands posted at the terminal O
- e. A manual or brochure at the terminal O
- f. An instruction manual for purchase O
- g. Training sessions O
- h. Slide/tape/cassette training program O
- i. None O

46. Select up to FOUR kinds of material you would like to see added to the computer catalog:

- a. Dissertations O
- b. Motion picture films O
- c. Government publications O
- d. Journal or magazine titles O
- e. Maps O
- f. Manuscripts O
- g. Music scores O
- h. Newspapers O
- i. Phonograph records or tapes O
- j. Technical reports O
- k. More of the library's older books O
- l. None O
- m. Other O

47. BRIEFLY DESCRIBE ANY OTHER PROBLEMS WITH THIS COMPUTER CATALOG OR CHANGES YOU WOULD LIKE MADE TO IT: O

PART 4: ABOUT YOURSELF

C-5

INSTRUCTIONS: Your responses are confidential. Please do not write your name anywhere on this questionnaire.

48. I come to this library:

- a. Daily ○
- b. Weekly ○
- c. Monthly ○
- d. About four times a year ○
- e. About once a year ○
- f. Not before today ○

49. I use this computer catalog:

- a. Every library visit ○
- b. Almost every visit ○
- c. Occasionally ○
- d. Rarely ○
- e. Not before today ○

50. I use this library's book, card or microfilm catalog:

- a. Every visit ○
- b. Almost every visit ○
- c. Occasionally ○
- d. Rarely ○
- e. Never ○

51. I use a computer system other than the library's computer catalog:

- a. Daily ○
- b. Weekly ○
- c. Monthly ○
- d. About four times a year ○
- e. About once a year ○
- f. Never ○

52. I first heard about this computer catalog from: (Mark ONE only)

- a. Noticing a terminal in the library ○
- b. Library tour, orientation or demonstration ○
- c. An article or written announcement ○
- d. A course instructor ○
- e. A friend or family member ○
- f. Library staff ○

53. I learned how to use this computer catalog: (Mark ALL that apply)

- a. From a friend or someone at a nearby terminal ○
- b. Using printed instructions ○
- c. Using instructions on the terminal screen ○
- d. From the library staff ○
- e. From a library course or orientation ○
- f. From a slide/tape/cassette program ○
- g. By myself without any help ○

54. My age group is:

- a. 14 and under ○
- b. 15 - 19 years ○
- c. 20 - 24 years ○
- d. 25 - 34 years ○
- e. 35 - 44 years ○
- f. 45 - 54 years ○
- g. 55 - 64 years ○
- h. 65 and over ○

55. I am:

- a. Female ○
- b. Male ○

56. Mark your current or highest educational level: (Mark ONE only)

- a. Grade School or Elementary School ○
- b. High School or Secondary School ○
- c. Some College or University ○
- d. College or University Graduate ○

If you are not completing this questionnaire at a college or university, please stop here. Thank you.

If you are completing this questionnaire at a college or university, please continue.

57. The category that best describes my academic area is: (Mark ONE only)

- a. Arts and Humanities ○
- b. Physical/Biological Sciences ○
- c. Social Sciences ○
- d. Business/Management ○
- e. Education ○
- f. Engineering ○
- g. Medical/Health Sciences ○
- h. Law ○
- i. Major not declared ○
- j. Interdisciplinary ○

SUPPLEMENTARY QUESTIONS

Instructions: Questions 57 through 61 are to be answered directly on this page. For each, fill in the "0" corresponding to the response you choose.

57. The term below that best describes my subject area or specialty is:

a. Allied Health 0
b. Biological Science 0
c. Dentistry 0
d. Library or Information Science .. 0
e. Medicine 0
f. Nursing 0
g. Physical Science 0
h. Social-Behavioral Science..... 0
i. Veterinary Medicine 0
j. Other (i.e., none of the above) . 0

58. The term below that best describes my professional role is:

a. Health Care Practitioner 0
b. Health Professions Educator 0
c. Researcher, Biomedical 0
d. Researcher, Other 0
e. Student, Health Professions 0
f. Student, Graduate 0
g. Student, Undergraduate 0
h. Other Professional 0
i. Other (i.e., none of the above) . 0

59. My first and primary use of the information obtained here today will be in:

a. Courses (classes) I am taking ... 0
b. "Keeping up" with a topic or field 0
c. Patient care 0
d. Preparing an article or other publication 0
e. Planning or conducting research . 0
f. Planning or teaching a course ... 0
g. Other (i.e., none of the above) . 0

60. My primary place of work is:

a. A private practice 0
b. A college or university 0
c. A hospital 0
d. A private company or business 0
e. The National Library of Medicine ... 0
f. The National Institutes of Health .. 0
g. A federal agency other than the NLM or NIH 0
h. In no formal organization (i.e., unaffiliated) 0
i. Other (i.e., none of the above) 0

61. Compared to COMCAT (the microfilm catalog in this library), the computer catalog is:

a. Better 0
b. About the same 0
c. Worse 0
d. I can't decide 0
e. No information -- I have not used COMCAT 0

THANK YOU FOR PARTICIPATING IN THIS STUDY. THIS COMPLETES THE QUESTIONNAIRE. PLEASE TURN IT IN AS INSTRUCTED.

APPENDIX D.

CLR Non-User Questionnaire (NLM Version)

D-1

Council on Library Resources

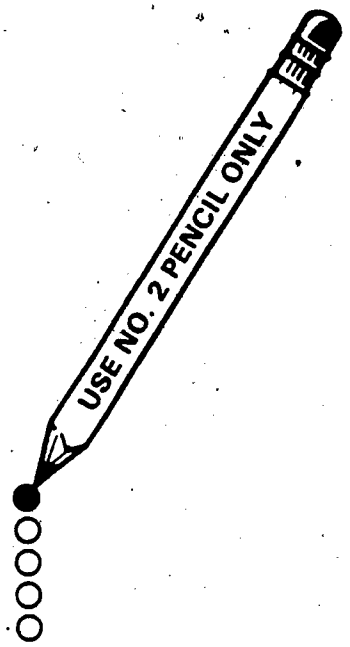
COMPUTER CATALOG STUDY

Questionnaire

The library has a computer catalog and not everyone has had a chance to use it yet. If you have NEVER USED THE COMPUTER CATALOG you can contribute to the quality of library services by completing this questionnaire. It takes about five minutes. Your responses are confidential. Please do not write your name anywhere on the questionnaire. Thank you.

MARKING INSTRUCTIONS

- USE A NO. 2 PENCIL ONLY.
- FILL THE CIRCLES COMPLETELY.
- BE SURE TO ERASE CLEANLY ANY MARKS YOU WISH TO CHANGE.
- MAKE NO STRAY MARKS ON THIS QUESTIONNAIRE.



14906

DO NOT WRITE IN THIS AREA

NCS Trans-Optic 05-15300-321

PART 1: WHAT YOU THINK ABOUT THE COMPUTER CATALOG

INSTRUCTIONS: Please mark the response that best describes how you view a computer catalog.

1. I have not used the computer catalog up to now because:
(Mark ALL that apply)

a. I do not like to use computers ..... ○
b. I did not know there was a computer catalog ..... ○
c. I do not know where it is ..... ○
d. I have not had time to learn to use it ..... ○
e. I have not taken training sessions on how to use it ..... ○
f. There has not been any staff at the terminals to assist me in using it ..... ○
g. The terminals were all in use when I wanted to use it ..... ○
h. I have not needed to use any library catalog recently ..... ○
i. The card catalog is easier to use ..... ○
j. The card catalog contains more of the information I need ..... ○
k. I am a visitor or infrequent user of this library ..... ○

2. How much time do you think it takes to learn to use the computer catalog?

a. A day or more ..... ○
b. Between 1/2 of a day and a day ..... ○
c. Between an hour and 1/2 of a day ..... ○
d. Between 30 minutes and an hour ..... ○
e. Between 15 minutes and 30 minutes ..... ○
f. 15 minutes or less ..... ○

3. How difficult or easy do you think it would be to learn to use the computer catalog?

a. Very difficult ..... ○
b. Somewhat difficult ..... ○
c. Somewhat easy ..... ○
d. Very easy ..... ○

4. My overall or general attitude toward the computer catalog is:

a. Very favorable ..... ○
b. Somewhat favorable ..... ○
c. Somewhat unfavorable ..... ○
d. Very unfavorable ..... ○

5. How likely are you to use the computer catalog in the future?

a. Very likely ..... ○
b. Somewhat likely ..... ○
c. Somewhat unlikely ..... ○
d. Very unlikely ..... ○

6. Compared to the card, book, or microfiche catalog in this library the computer catalog is:
(Mark ONE only)

a. Better ..... ○
b. About the same ..... ○
c. Worse ..... ○
d. Can't decide ..... ○

PART 2: ABOUT YOURSELF

INSTRUCTIONS: Your responses are confidential. Please do not write your name anywhere on this questionnaire.

7. I come to this library:

a. Daily ..... ○
b. Weekly ..... ○
c. Monthly ..... ○
d. About four times a year ..... ○
e. About once a year ..... ○
f. Not before today ..... ○

8. I use this library's book, card or microfilm catalog:

a. Every visit ..... ○
b. Almost every visit ..... ○
c. Occasionally ..... ○
d. Rarely ..... ○
e. Not before today ..... ○

9. I use a computer system other than the library's computer catalog:

a. Daily ..... O
b. Weekly ..... O
c. Monthly ..... O
d. About four times a year ..... O
e. About once a year ..... O
f. Never ..... O

10. My age group is:

a. 14 and under ..... O
b. 15 - 19 years ..... O
c. 20 - 24 years ..... O
d. 25 - 34 years ..... O
e. 35 - 44 years ..... O
f. 45 - 54 years ..... O
g. 55 - 64 years ..... O
h. 65 and over ..... O

11. I am:

a. Female ..... O
b. Male ..... O

12. Mark your current or highest educational level: (Mark ONE only)

a. Grade School or Elementary School ..... O
b. High School or Secondary School ..... O
c. Some College or University ..... O
d. College or University Graduate ..... O

If you are not completing this questionnaire at a college or university, please stop here. Thank you.

If you are completing this questionnaire at a college or university, please continue.

13. The category that best describes my academic area is: (Mark ONE only)

a. Arts and Humanities ..... O
b. Physical/Biological Sciences ..... O
c. Social Sciences ..... O
d. Business/Management ..... O
e. Education ..... O
f. Engineering ..... O
g. Medical/Health Sciences ..... O
h. Law ..... O
i. Major not declared ..... O
j. Interdisciplinary ..... O

14. The main focus of my academic work at the present time is: (Mark ALL that apply)

a. Course Work ..... O
b. Teaching ..... O
c. Research ..... O

15. My present affiliation with this college or university is:

a. Freshman/Sophomore ..... O
b. Junior/Senior ..... O
c. Graduate - masters level ..... O
d. Graduate - doctoral level ..... O
e. Graduate - professional school ..... O
f. Faculty ..... O
g. Staff ..... O
h. Other ..... O

Thank you for participating in this study of the computer catalog. This completes the questionnaire. Please return it.

SUPPLEMENTARY QUESTIONNAIRE ITEMS

16. OOOOOOOOOOOOOOO
17. OOOOOOOOOOOOOOO
18. OOOOOOOOOOOOOOO
19. OOOOOOOOOOOOOOO

SUPPLEMENTARY QUESTIONS

Instructions: Questions 13 through 16 are to be answered directly on this page. For each, fill in the "0" corresponding to the response you choose.

13. The term below that best describes my subject area or specialty is:

a. Allied Health 0
b. Biological Science 0
c. Dentistry 0
d. Library or Information Science .. 0
e. Medicine 0
f. Nursing 0
g. Physical Science 0
h. Social-Behavioral Science..... 0
i. Veterinary Medicine 0
j. Other (i.e., none of the above) . 0

14. The term below that best describes my professional role is:

a. Health Care Practitioner 0
b. Health Professions Educator 0
c. Researcher, Biomedical 0
d. Researcher, Other 0
e. Student, Health Professions 0
f. Student, Graduate 0
g. Student, Undergraduate 0
h. Other Professional 0
i. Other (i.e., none of the above) . 0

15. My first and primary use of the information obtained here today will be in:

a. Courses (classes) I am taking 0
b. "Keeping up" with a topic or field 0
c. Patient care 0
d. Preparing an article or other publication 0
e. Planning or conducting research 0
f. Planning or teaching a course 0
g. Other (i.e., none of the above) 0

16. My primary place of work is:

a. A private practice 0
b. A college or university 0
c. A hospital 0
d. A private company or business 0
e. The National Library of Medicine ... 0
f. The National Institutes of Health .. 0
g. A federal agency other than the NLM or NIH 0
h. In no formal organization (i.e., unaffiliated) 0
i. Other (i.e., none of the above) 0

THANK YOU FOR PARTICIPATING IN THIS STUDY.

THIS COMPLETES THE QUESTIONNAIRE.

PLEASE TURN IT IN AS INSTRUCTED.

APPENDIX E.

Sample Search Experiment - Search Questions (Odd/Even Versions)

SAMPLE SEARCH EXPERIMENT

A. Personal Author Search

Print a bibliography of recent (1974-present) publications by:

Harold I. Kaplan	(CITE)
Charles Horace Gray	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

B. Corporate Author Search

Find books published by a particular organization. The name is not complete as presented:

Harvard Center for Medical Care	(ILS)
Center for Ulcer Education	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

C. Title Search

Find the following titles. Part of the title is:

Host-Virus Interaction	(CITE)
Activity in Proteins	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

D. Series Search

Find the books which are part of a series. The incomplete name of the series is:

Laboratory and Research Methods	(ILS)
Wiley Series in Probability and Mathematical Statistics	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

ODD

E. Conference Search

Find the records from the following conferences:

Conference on Ambulatory Monitoring	(CITE)
Conference on Recombinant DNA	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

F. Subject Searches

Find books on the following subjects:

Smoking and Lung Neoplasms	(ILS)
Cerebrovascular Disorders and Contraceptives, Oral	(CITE)

Search the following subjects:

Toxic Shock Syndrome	(CITE)
Percutaneous Transluminal Angioplasty	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

SAMPLE SEARCH EXPERIMENT

A. Personal Author Search

Print a bibliography of recent (1974-present) publications by:

Harold I. Kaplan	(ILS)
Charles Horace Gray	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

B. Corporate Author Search

Find books published by a particular organization. The name is not complete as presented:

Harvard Center for Medical Care	(CITE)
Center for Ulcer Education	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS.

C. Title Search

Find the following titles. Part of the title is:

Host-Virus Interaction	(ILS)
Activity in Proteins	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

D. Series Search

Find the books which are part of a series. The incomplete name of the series is:

Laboratory and Research Methods	(CITE)
Wiley Series in Probability and Mathematical Statistics	(ILS)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

EVEN

E. Conference Search

Find the records from the following conferences:

Conference on Ambulatory Monitoring	(ILS)
Conference on Recombinant DNA	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

F. Subject Searches

Find books on the following subjects:

Smoking and Lung Neoplasms	(CITE)
Cerebrovascular Disorders and Contraceptives, Oral	(ILS)

Search the following subjects:

Toxic Shock Syndrome	(ILS)
Percutaneous Transluminal Angioplasty	(CITE)

STOP -- CHECK-MARK RELEVANT RECORDS -- ANSWER QUESTIONS

APPENDIX F.

Sample Search Experiment - Data Collector"s Scoring Sheet

SAMPLE SEARCH EXPERIMENT

ODD Respondent #_____

Name _____ Date _____

DATA COLLECTOR'S SCORING SHEET

A. Personal Author Search

(CITE) Harold I. Kaplan Time _____

(ILS) Charles Horace Gray Time _____

A1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

A2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

A3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

B. Corporate Author Search

(ILS) Harvard Center for Medical Care (for Community and) Time_____

(CITE) Center for Ulcer Education (Research and) Time_____

B2. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

B2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

B3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

C. Title Search

(CITE) Host-Virus Interaction (Molecular Basis of) Time_____

(ILS) Activity in Proteins (Molecular Interactions and) Time_____

C1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

C2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

C3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

ODD

D. Series Search

(ILS) Laboratory and Research Methods (in Biology and Medicine) Time_____

(CITE) Wiley Series in Probability and Mathematical Statistics (:Applied Probability and Statistics) Time_____

D1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

D2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

D3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

E. Conference Search

(CITE) Conference on Ambulatory Monitoring Time_____

(ILS) Conference on Recombinant DNA Time_____

E1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

E2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

E3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

F. Subject Search

(ILS) Smoking and Lung Neoplasms Time_____

(CITE) Cerebrovasc. Disorders and Contra., Oral Time_____

(CITE) Toxic Shock Syndrome Time_____

(ILS) Percutaneous Transluminal Angioplasty Time_____

F1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

F2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

F3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

ODD

4. Considering only current items published since 1974, in general, do you think you found more of the information you were looking for using (ILS)(CITE)(NO DIFF)?

5. Would you say that system response time was significantly faster using (ILS)(CITE)(NO DIFF)?

6. Would you say that the display of information on the terminal screen is most satisfactory using (ILS)(CITE)(NO DIFF)?

7. Would you say that the online instructions, prompts and help messages are most satisfactory using (ILS)(CITE)(NO DIFF)?

8. Overall, do you have a preference for (ILS)(CITE)(NO PREF)? Would you say your preference is (SLIGHT)(MODERATE)(STRONG)?

* * *

9. What features or attributes of ILS do you find particularly desirable or helpful? Of CITE? Please be specific.

10. What features or attributes of ILS do you find particularly undesirable or annoying? Of CITE? Please be specific.

11. What features or attributes not now available on ILS would you like to see? On CITE? Please be specific.

SAMPLE SEARCH EXPERIMENT

EVEN Respondent #_____

Name._____ Date _____

DATA COLLECTOR'S SCORING SHEET

A. Personal Author Search

(ILS) Harold I. Kaplan Time _____

(CITE) Charles Horace Gray Time _____

A1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

A2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

A3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

B. Corporate Author Search

(CITE) Harvard Center for Medical Care (for Community and) Time_____

(ILS) Center for Ulcer Education (Research and) Time_____

B2. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

B2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

B3. In relation to what you were looking for would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

C. Title Search

(ILS) Host-Virus Interaction (Molecular Basis of) Time_____

(CITE) Activity in Proteins (Molecular Interactions and) Time_____

C1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

C2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

C3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

EVEN

D. Series Search

(CITE) Laboratory and Research Methods (in Biology and Medicine) Time_____

(ILS) Wiley Series in Probability and Mathematical Statistics Time_____
(:Applied Probability and Statistics)

D1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

D2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

D3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

E. Conference Search

(ILS) Conference on Ambulatory Monitoring Time_____

(CITE) Conference on Recombinant DNA Time_____

E1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

E2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

E3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

F. Subject Search

(CITE) Smoking and Lung Neoplasms Time_____

(ILS) Cerebrovasc. Disorders and Contra., Oral Time_____

(ILS) Toxic Shock Syndrome Time_____

(CITE) Percutaneous Transluminal Angioplasty Time_____

F1. Considering only current items published since 1974, of the information retrieved, would you say that the largest proportion of relevant information was found using (ILS)(CITE)(NO DIFF)?

F2. In terms of user friendliness, did you find it easier to conduct this type of search using (ILS)(CITE)(NO DIFF)?

F3. In relation to what you were looking for, would you say that this type of search was most satisfactory using (ILS)(CITE)(NO DIFF)?

EVEN

4. Considering only current items published since 1974, in general, do you think you found more of the information you were looking for using (ILS)(CITE)(NO DIFF)?

5. Would you say that system response time was significantly faster using (ILS)(CITE)(NO DIFF)?

6. Would you say that the display of information on the terminal screen is most satisfactory using (ILS)(CITE)(NO DIFF)?

7. Would you say that the online instructions, prompts and help messages are most satisfactory using (ILS)(CITE)(NO DIFF)?

8. Overall, do you have a preference for (ILS)(CITE)(NO PREF)? Would you say your preference is (SLIGHT)(MODERATE)(STRONG)?

* * *

9. What features or attributes of ILS do you find particularly desirable or helpful? Of CITE? Please be specific.

10. What features or attributes of ILS do you find particularly undesirable or annoying? Of CITE? Please be specific.

11. What features or attributes not now available on ILS would you like to see? On CITE? Please be specific.

APPENDIX G.

Comparison Search Experiment - Data Collector's Scoring Sheet

ODD (Start with CITE)
EVEN (Start with ILS)

Respondent #_____

Date _____

SCORING SHEET: COMPARISON SEARCH EXPERIMENT

***Before Starting Search:

1. What catalog information are you trying to find? Mark all that apply -- (A specific book)(Books by a specific author)(Specific information such as publisher, date, spelling of a name, etc.)(If a book known to be owned by the Library is available for use)(Call number)(Books on a topic or subject) -- obtain details:

***After Patron Completes Search on CITE and ILS:

If search query is specific (only), go to item 2 and skip 3
If search query is on a subject (only), skip item 2 and go to 3
If search query is both specific and on a subject, go to items 2,3

2. Do you think you found the specific information you were looking for? (YES)(NO)
   If "yes", on which system(s) did you find it? (ILS)(CITE)(BOTH)

3. Do you think you found more of the information you were looking for using (ILS)(CITE)(NO DIFF)?

4. In relation to what you were looking for, would you say your search was most satisfactory using (ILS)(CITE)(NO DIFF)?

5. In general did you find it easier to use (ILS)(CITE)(NO DIFF)?

6. The next time you need to conduct a catalog search, will you want to use (ILS)(CITE)(NO PREF)?

7. What is the term that best describes your professional role? (Health Care Prac.)(Health Prof. Ed.)(Researcher, Biomed.)(Researcher, Other)(Student, Health Prof.)(Student, Grad.)(Student, Undergrad.)(Other Prof.)(None of the above)

Are there any additional comments you care to make concerning your use of the ILS and CITE computer catalog systems? Please be specific.

THANK YOU very much for your participation in this experiment.