ED 302 252                                          IR 052 589

AUTHOR          Hitchings, Donna, Ed.; Wilson, Thomas C., Ed.
TITLE           Education Research Handbook.
INSTITUTION     Houston Univ., Tex. Libraries.
PUB DATE        Jul 88
NOTE            60p.; A product of the Library Research Workbook Task
                Force. For other handbooks of the University of
                Houston's Library Instruction Program, see IR 052
                588-591.
PUB TYPE        Guides - Classroom Use - Materials (For Learner)
                (051)

EDRS PRICE      MF01/PC03 Plus Postage.
DESCRIPTORS     Academic Libraries; *Educational Research; Higher
                Education; *Library Instruction; *Library Skills;
                *Research Skills; *Search Strategies

ABSTRACT
        This handbook is designed as an introduction to the
process of library research in the field of education. To illustrate
the process, a sample topic is developed from a broad concept through
a well-developed topic for a research paper. Following an overview of
a successful research strategy, the chapters are organized in the
order of a typical strategy: (1) encyclopedias, handbooks, and
dictionaries; (2) library catalogs; (3) Library of Congress call
numbers; (4) determining locations of books; (5) indexes; (6)
locating journals and microforms; (7) finding government documents;
(8) finding statistical information; (9) computer searching; (10)
trouble-shooting; (11) evaluation of sources; and (12) formatting the
final bibliography. (MES)

# UNIVERSITY OF HOUSTON LIBRARIES

# EDUCATION RESEARCH HANDBOOK

# LIBRARY INSTRUCTION PROGRAM

2

University of Houston Libraries

# EDUCATION RESEARCH HANDBOOK

### Edited By

Donna Hitchings and

Thomas C. Wilson

### Written By

Library Research Workbook Task Force

Donna Hitchings, Chair

Evelyn Brass

Jeff Fadell

John D. Hall

Sam R. Hyde

Thomas C. Wilson

### Production Assistant

Richard Malinowski

Library Instruction Program

## ACKNOWLEDGEMENTS

# TABLE OF CONTENTS

# INTRODUCTION

This handbook is designed to introduce you to the process of doing library research in the field of education. Throughout your academic career and in your professional career as you develop proposals or projects, you will need to find information. We live in what has been called the "Information Age." The amount of information available in every subject area, including education, is growing at a phenomenal rate. Much of this information is accessible through university, public, or professional libraries.

In order to effectively access and use the information available in libraries, you need to develop advanced information-seeking skills in your subject area. As you read the chapters in this handbook, you will be introduced to new sources as well as new ways of using familiar sources such as the Library Catalog. In order to illustrate the process of looking for information, a sample topic will be developed from a very broad concept through to a well-developed topic for a research paper using the specialized education research tools available in the Library.

Suppose that you have been given an assignment in your education class to write a paper on a learning theory. You have been told to use research material only and that your bibliography must include references to both books and journals. From your class lectures you have received a good overview of learning theories, but you may still be unsure of what your topic will be. What do you do now?

As stated earlier, the following chapters are organized in the order of a typical research strategy, the order in which you might proceed with your library research for this and future information needs. As an example, the general topic described above is developed in this workbook using sources in the Library. The final topic developed in this handbook is: "Teaching Methods to Develop Critical Thinking Skills in the Social Studies Classroom."

## THE ASSIGNMENT

As you complete each section, there is space for you to
develop your strategy for your own research.  By the end of
the workbook, you will have developed an annotated
bibliography of sources on your research interest. In the
annotated bibliography you must list each of your sources
in APA format with a short description defending your
selection as research material and summarizing the content
of the item.  This handbook is a step-by-step approach
towards that final product.  The assignment for each section
is in a box at the end.

As you go through the handbook remember that, instead of learning
the titles of many reference sources, it is important to learn
the types of sources available, the kinds of information they
provide, and their use in a logical order.  The result will be
less frustration and a better product!

# LIBRARY TOUR

If you are unfamiliar with the M.D. Anderson Library, it would probably be a good investment of your time to take a tour of the Library in order to become oriented to the building. Library tours usually take 30-45 minutes. The following options are available to help you with this orientation.

A.   Printed WALKING TOUR Library Guides are available from the staff at the Reference/Information Desk when the desk is open. This guide is self-paced, and you take the tour whenever the Library is open.

B.   An audiocassette tour of the Library may be borrowed at the Reserves Desk, 1st Floor Red Wing. The Reserves Desk is open all the hours the Library is open.

C.   The Information Machine, located on IBM microcomputers near the Online Catalog, 1st Floor Red Wing, provides a general orientation to the Library. You can use the Information Machine to learn about the resources and services available in this Library. The Information Machine is available whenever the Library is open.

D.   General library tours are offered by library staff during the day on Tuesday's and Wednesday's throughout the semester. The schedule for these tours is available on a poster in the Library lobby and at the Reference/Information Desk.

The brochure LIBRARY INFORMATION includes maps of the Library as well as a basic orientation to services. Copies are available at the Reference/Information Desk.

## RESEARCH STRATEGY

One of the keys to successful research is planning. Impulsive library research is much like impulsive shopping. You may end up with something to take with you, but it may not be what you really need.



CATHY 1985 * UNIVERSAL PRESS SYNDICATE.
Reprinted with permission. All rights reserved.

**START EARLY.** There are many reasons for allowing yourself time for information-gathering. It will take some time to identify the best sources for your research and to gather the information. If you wait until the week before the assignment is due, others may need many of the same sources at the same time.

To ensure that you conduct a thorough and efficient search for information, you need to use a systematic plan commonly called a research strategy. A research strategy can and should be tailored to fit your research project; however, most strategies have the following characteristics or steps:

STEP 1: Select A Topic.
Suppose, through textbooks and lectures, you have already identified the major theories of learning. Let's assume that you are especially interested in cognitive learning theories. However, you are aware that much has been written on cognitive learning--much more than could be effectively presented in a research paper.

An important part of the research process is selection of a specific topic. What is your research question? What specific aspect of cognitive learning theories will you focus on?

Two important considerations of topic selection or formulation are:

1.  Select a general topic or area of interest, i.e., cognitive learning theories.  Pick a topic of interest to you. Discussing your ideas with colleagues and instructors may help you select a suitable general topic for your research paper.

2.  Narrow your topic.
    Once you have selected a broad topic of interest you next need to determine what aspect you are interested in pursuing.  Colleagues and instructors may also be able to provide suggestions in this step.  In addition, background reading may prove helpful. The next chapter of this handbook describes how you can use specialized educational reference sources in the Library to help you focus your research.

Step 2:  Analyze the Problem.
Decide what kind of and how much information you need.  In-depth analysis or a brief report?  Recent developments or a historical survey?  Scholarly research or popular views?  Review what you already know about the topic from textbooks, lectures, colleagues, etc.  Consult with instructors and librarians for suggestions.  Also, think about what sources are most likely to contain information on your topic.  Do you need to locate books, journal articles, etc?  This handbook will introduce you to the types of sources available in libraries and what information you may find in them.

Step 3:  Prepare A Preliminary Bibliography.
Consult sources of background and historical information first and then follow-up with sources which provide more detailed or recent information.  For example, an encyclopedia article on learning theories will survey their history and development as well as provide an overview; books will cover further developments and provide an overview; journal articles will indicate the most recent developments or specialized applications.

This is an example research strategy.  What sources you use and in what order will depend on what you already know about a topic. The important thing to remember is to use what works for you. Flexibility and adaptability are key in successful library research.  As you compile your preliminary bibliography, if you need assistance, ask at the Reference/Information Desk, 1st Floor Red Wing.  You will use this preliminary bibliography to locate materials.  Once you have found these materials, you can determine which ones are appropriate for your final bibliography. As you compile this preliminary bibliography, keep in mind the following points:

1.  You may later find that not all of the materials are relevant to your specific topic.

2.  In most cases not all of the materials will be available in this Library. Staff at the Reference/Information Desk can identify other Houston-area libraries that have those materials. We can also have the material sent to this Library; however, that takes time (more on this option follows later in the section "Trouble-Shooting").

3.  Some of the articles, books, etc., will not contain the type of information you need. They may be general discussions when you need research materials.

It is important to write down all the citations which seem relevant as you use a source. By doing so you will possibly save yourself a lot of time later trying to retrace your steps if a number of the materials do not meet your evaluation criteria. Also, write down the complete citation and note where you found it in case you need to check it later.

Step 4: Evaluate Your Sources.
What are the authors' credentials? What research methodologies were used; is the article from a refereed journal? Your evaluation criteria will vary depending on what types of sources you wish to use: research, practical, or a combination of both.

Step 5: Develop Your Final Annotated Bibliography
Upon completion of your evaluation of the sources in your preliminary bibliography, select those sources most appropriate for your topic. List each of these sources in APA format with a short description defending your selection as research material - (data-based) vs. expository writing - and summarizing the content of the item.

Step 6: Write Your Paper.
After reading the sources you have located, you will write your final paper. Included with the paper will be your final bibliography - the sources you actually used to write the paper.

The following chapters are organized in the order of a typical research strategy: formulating your topic, using sources of background information, locating citations to books in this library, using indexes to locate citations to journal articles and government documents, and evaluating sources of information. Not all of the steps are required as part of every research process. Which sources you use will depend on what you already know and what you need to find out. The chart on the following page further illustrates a sample research strategy.

# SAMPLE RESEARCH STRATEGY

```
        ( SELECT A )
        ( GENERAL TOPIC )
              |
              v
        +-------------+
        |    FIND     |
        | BACKGROUND  |
        | INFORMATION |
        +-------------+
              |
              v
       /  GENERAL   /
      /  REFERENCE /
     /   BOOKS    /
              |
              v
        +-------------+
        |   SELECT    |
        |  SPECIFIC   |
        |   TOPIC     |
        +-------------+
              |
              v
        +-------------+
        |  ASSEMBLE   |
        |   BASIC     |
        | BIBLIOGRAPHY|
        +-------------+
              |
              v
```

| FIND BOOKS | FIND PERIODICALS | ASK REFERENCE LIBRARIAN FOR SUGGESTIONS |
| CARD AND ONLINE CATALOGS | INDEXES | |

```
        +-------------+        +----------------------------+
        |   LOCATE    |- - - - | IF UNABLE TO LOCATE         |
        |  MATERIALS  |        | MATERIALS, ASK AT           |
        +-------------+        | REFERENCE/INFORMATION       |
              |                | DESK                        |
              v                +----------------------------+
        +-------------+
        |    READ     |
        | MATERIALS FOR|
        |  NECESSARY  |
        | INFORMATION |
        +-------------+
              |
              v
        ( WRITE PAPER )
```

# SUBJECT ENCYCLOPEDIAS, HANDBOOKS, AND DICTIONARIES

How you select a specific topic will depend on how much you already know about the subject. In some cases you may have no idea where to begin. At other times, as in the example assignment, you may have some ideas with which to begin. In either case, background reading may be needed to determine how to focus or narrow your topic.

## Encyclopedias

Specialized encyclopedias concentrate on broad subject fields such as education and contain articles written by recognized scholars. These articles are usually more detailed and exhaustive than articles in general encyclopedias and tend to include extensive bibliographies.

You can use subject encyclopedias for several purposes:

1.  Find an overview or summary of the subject

2.  Familiarize yourself with words and phrases used by scholars to discuss the topic

3.  Understand the broad context of the topic as well as the various parts of the subject and how they are related

4.  Define and clarify the topic

5.  Identify other sources of information in attached bibliographies

Most encyclopedias are located in ANREF, Reference Collection, 1st Floor Red Wing. Subject encyclopedias appropriate to the study of education include:

Encyclopedia of Education  ANREF LB17.E3
Encyclopedia of Educational Research  ANREF L901.E57 1982
International Encyclopedia of the Social Sciences  ANREF H41.I5
Handbook of Research on Teaching  ANREF LB1028.H315 1986
                                  ANSTAK LB1028.H315 1986


The Handbook of Research on Teaching is an excellent source for background information and general overviews. There are also extensive bibliographies following each article. For example, in the article "Research on Teaching Social Studies," there is a review of research on developing critical thinking skills.

EXAMPLE

If you were to look under the example general subject "cognitive learning theories" in the index volume (Vol. 10) of the Encyclopedia of Education, you would find the heading "Cognitive Learning." By looking at the headings in the index you would see more specific topics, such as "Cognitive and Affective Outcomes of Learning." Under that heading there are a number of subdivisions. Subdivisions such as those may help you focus the topic further.

Suppose you are a social studies teacher. The subdivision labeled in the example entry below would probably be of particular interest.

EXAMPLE from Encyclopedia of Education Index

COGNITIVE AND AFFECTIVE OUTCOMES OF
     LEARNING 2:196-201
       art education promoting 1:309
       comprehensiveness in instructional objectives 5:111
       contemporary affairs study 2:430
       foreign language teaching. elementary schools 4:59
       goals of education 4:148, 155, 156
       music education 6:474
       questioning in the classroom 2:184
       social studies education 8:283
       taxonomies of lear...g 8:596
       vocabulary development objectives 9:463

As you read an article in an encyclopedia, other ideas for a topic might occur to you.

Dictionaries

During the research process you may encounter specialized language you do not understand or acronyms with which you are not familiar. You may even encounter ordinary English words given new meanings by a subject specialist. Some of the subject dictionaries and handbooks used by educators are:

A Dictionary of Education  ANREF LB15.D48 1982
A Dictionary of Education  ANREF LB15.R64 1982
Dictionary of Educational Acronyms, Abbreviations, and Initialism
     ANREF LB15.P35 1985

Using what you have learned in this section, check to see what articles apply to your subject interest. Using the index of the Handbook and/or an encyclopedia, look up your topic. What applicable headings do you find? Are there subdivisions which seem particularly relevant? After reading the articles, write down any relevant citations you find in the bibliographies.

# LIBRARY CATALOGS

Now that you have defined your research topic, you can begin to locate books in the Library on the topic.

## WHY YOU SHOULD USE BOOKS

There are a number of reasons for using books to find information for your research paper. They include the following:

1. Books are often the best sources for a comprehensive, in-depth look at a topic.

2. A book may give you different viewpoints on your topic, particularly if each chapter is written by a different author.

3. Books often have extensive bibliographies, providing you with ready-made lists of sources to check for further information.

4. A book may include statistical or factual data gathered from many sources. This can save you the trouble of examining the complete range of research on the topic and can provide clues as to where to find more current data.

## HOW TO IDENTIFY BOOKS THE LIBRARY OWNS

To identify which books are owned by the M.D. Anderson Library, you should use the Online Catalog. The Online Catalog includes records for books owned by the M.D. Anderson Library, the other branch libraries on this campus (Architecture and Art, Music, Optometry, and Pharmacy), the Law Library, and the libraries of the other UH System campuses (UH Clear Lake, UH Downtown, and UH Victoria).

The Online Catalog is more up-to-date than the Card Catalog, and it allows you to search for books in ways that are not possible in the Card Catalog. The Online Catalog can also be searched from your home or office if you have the necessary equipment. A brochure on remote access to the online Catalog is available at the Reference/Information Desk.

SEARCHING THE ONLINE CATALOG

The Online Catalog is menu-driven, with instructions provided at the bottom of the screen. The first time you use the Online Catalog, you might want to type in NEW USER and press the [SEND] key to read a brief introduction.

If you are familiar with the Online Catalog, you may want to skip to SUBJECT SEARCHING in this handbook to read some new information.

STEP ONE: CHOOSING YOUR SEARCH METHOD

The first step is to select the type of search you want to do. Call up the "Search Type Menu" by following the instructions at the bottom of the screen for beginning a new search. You may select from the following list of ways to search the Online Catalog:

Search Type Menu

1. TIL - Title, journal title, series title

2. AUT - Author, illustrator, editor, organization, conference

3. A-T - Combination of author and title

4. SUB - Subject heading assigned by library

5. NUM - Call number, ISBN, ISSN

6. KEY - One word taken from a title, author, or subject

STEP TWO: SELECTING SEARCH TERMS

Searching by author or title is straightforward; simply follow the instructions on the screen. Searching for books on a topic may require some preliminary steps.

This section describes how to search the Online Catalog for books on a topic:

SUBJECT SEARCHING:   Using Library of Congress subject headings in a subject search

KEYWORD SEARCHING:   Using keywords in titles, authors' names, and subject headings

SUBJECT SEARCHING

To do a subject search of the Online Catalog, you must know the subject headings that are used by the Library for your topic. These subject headings are assigned to the catalog records for books, and they are not always the same terms as those used in your textbooks.

The official list of these headings is contained in large books called Library of Congress Subject Headings (LCSH), copies of which are kept by the Online Catalog, 1st Floor Red Wing. When you check a subject term in the LCSH, you will also find references to related subject headings.

For example, before beginning a subject search for books on the sample topic "social studies and critical thinking skills," you can identify some potential subjects:

> Critical thinking
> Thinking
> Social Studies

Next, when you look up the potential subjects in LCSH, you find cross references from:

<div style="text-align:right">Library of Congress Subject Heading</div>

| | | |
|---|---|---|
| Thinking | TO | Thought and Thinking |
| Social Studies | TO | Social Sciences |

By doing a subject search of the Online Catalog using the above Library of Congress subject headings ("Thought and Thinking" and "Social Sciences"), you will retrieve records for books on "critical thinking" and "social studies." Sections in those books may discuss the sample topic.

REFINING SUBJECT HEADINGS

Subdivisions are often added to subject headings to modify, refine, or narrow the meaning and scope of the subject headings. The subdivision commonly used to denote how to study or how to teach a discipline is "-- STUDY AND TEACHING." This can be made even more specific by adding on the terms (ELEMENTARY), (PRIMARY), (SECONDARY), etc.

> Examples
>
> SOCIAL SCIENCES -- STUDY AND TEACHING (SECONDARY)
> THOUGHT AND THINKING -- STUDY AND TEACHING

---

Now look in <u>LCSH</u> for possible subject headings for your
topic.  Write down any headings you might use when search-
ing the Online Catalog for books.

---

## KEYWORD SEARCHING

Keyword searching offers you an option not possible in card
catalogs.  With this search type, you may search any one word and
find records in the Online Catalog that contain that word
anywhere in the title, an author's name, or a subject heading.
This search type can be especially useful when you have trouble
identifying appropriate subject headings to use in a subject
search.

### Keyword Searching Tips

1. As this handbook is being printed, searching by keyword will
   not retrieve the most recent books. For recent records, you
   must follow up with a subject search. (See <u>Using a Known
   Title to Find Others</u> at the end of this section.)

2. Select an uncommon word to search.  A very common word such
   as "critical," "education," or "social" used as a title
   keyword would probably result in hundreds or even thousands
   of matching titles.

3. Keep in mind that a particular word can have more than one
   meaning or can be used in more than one context. Some of the
   titles you retrieve might be useful while others might not
   be.

A keyword search is not appropriate for every topic.  For
example, some books on a topic may not have the word you selected
in the title.  If you can identify an uncommon word and you are
having trouble identifying a subject heading, you can begin with
a keyword search; however, you should probably follow up with a
subject search to ensure that you do not miss retrieving records
for relevant books on a topic.

**STEP THREE:** RETRIEVING RECORDS FOR BOOKS

After you have entered a title, keyword, subject heading, etc.,
the next screen in the Online Catalog will often be a list of
items from which you must choose one at a time. For example,
when you enter "THOUGHT AND THINKING -- STUDY AND TEACHING" as a
SUBJECT, you retrieve the screen below:

```
095 UHUP/M.D. ANDERSON LIB.  - GEAC LIBRARY SYSTEM -  ALL *SUBJECT SEARCH

Your Subject: THOUGHT AND THINKING-STUDY AND TEA          Matches    4 subjects

                                                      No. of citations
                                                      in entire catalog
    1 Thought and thinking -- Study and teaching.              26
    2 Thought and thinking -- Study and teaching -- Congresses. 2
    3 Thought and thinking -- Study and teaching (Elementary).  1
    4 Thought and thinking -- Study and teaching (Primary)      1
```

By selecting number "1," you retrieve the following list of book
titles:

```
095 UHUP/M.D. ANDERSON LIB.  - GEAC LIBRARY SYSTEM -  ALL *SUBJECT SEARCH

                                                    matches    26 citations
Ref# Author                  Title                              Date
    1 Aylesworth, Thomas G.   Teaching for thinking              1969
    2 Baron, Joan Boykoff.    Teaching thinking skills : theory a> 1987
    3 Bligh, Donald A.        Teach thinking by discussion /     1986
    4 Chance, Paul.           Thinking in the classroom : a surve> 1986
    5 Chuska, Kenneth R.      Teaching the process of thinking, K> 1986
    6 Costa, Arthur L.        Developing minds : a resource book > 1985
    7 D'Angelo, Edward, 1932- teaching of critical thinking.     1971
    8 De Bono, Edward, 1933-  Teaching thinking /                1976
    9 De Bono, Edward, 1933-  Teaching thinking /                1978
   10 Drake, James A.         Teaching critical thinking : analyz> 1976
   11 Eggen, Paul D., 1940-   Strategies for teachers : teaching > 1988
   12 Friedman, Myles I., 1924- >  Teaching higher order thinking skil> 1984

Type a number to see associated information -OR-
   IND - see list of headings          FOR - move forward in this list
   CAT - begin a new search            CMD - see additional commands

Enter number or code: FOR
```

If you are interested in retrieving the record for the book
Thinking in the classroom: a surve..., type in the reference
number "4" and press the [SEND] key. The next screen you will
retrieve is the BRIEF record for a book. There are two records
for each book: a BRIEF record and a FUL record.

## EXAMPLE BRIEF Record

```
AUTHOR:  Chance, Paul.
TITLE:   Thinking in the classroom : a survey of programs / Paul Chance ; for>
IMPRINT: New York : Teachers College Press, c1986.

              Loan   Call
    Location  Type   Number              Status

    ANDERS/ANSTAK  BOOK   LB1062.C48 1986


    FUL - see complete citation        CIT - return to your citation list
    IND - see list of headings         FOR - see next citation in list
    BAC - see previous citation        CAT - begin a new search
    CMD - see additional commands
Enter code _
```

The BRIEF record contains the following information about a book:

AUTHOR:     Personal author or corporate author (association, institution, conference, corporation)

TITLE:      Complete title of the book

IMPRINT:    Place of publication, publisher, and date of publication

LOCATION:   Code that stands for the library in which you will find the book and the particular section of the library where the book is located.  A list of these codes is available by the Online Catalog.  See the following chapter LOCATING BOOKS for more information.

LOAN
TYPE:       Code for identifying circulation information for the item.  A book that can be checked out is designated as BOOK.  A book that cannot be checked out is designated as NCBOOK.

CALL
NUMBER:     Number assigned to determine the location of the book on the shelf

STATUS:     Information about the availability of the book. "IN LIBRARY" means that the book is not checked out; "DUE" followed by a date means that the book is checked out and is due back on the date indicated; Blank status line or "STATUS UNAVAILABLE" means that the Online Catalog does not know the status. If the book is not on the shelf, check with the staff at the Circulation Desk.

After you have found a BRIEF record, you may then view a FULL
record for the same title by typing in "FUL" and pressing SEND:

## FULL record

```
AUTHOR:  Chance, Paul.
TITLE:   Thinking in the classroom : a survey of programs / Paul Chance ;
         foreword by Ronald S. Brandt.
IMPRINT: New York : Teachers College Press, c1986.
PHYSICAL FEATURES: xii, 164 p. : ill. ; 23 cm.
NOTES:   Includes index. * Bibliography: p. 152-159.
SUBJECTS: Creative thinking (Education) * Thought and thinking -- Study and
         teaching. * Problem solving -- Study and teaching.
LC CARD: 85017335
ISBN:    0807727946 (pbk.)


   BRF - see locations and call numbers   CIT - return to your citation list
   IND - see list of headings             FOR - see next citation in list
   BAC - see previous citation            CAT - begin a new search
   CMD - see additional commands
Enter code  _
```

Note that the FULL record does not contain LOCATION, CALL NUMBER,
or STATUS information for the book.  You must get that
information from the BRIEF record.  The FULL record does,
however, contain the following information not found on the BRIEF
record:

PHYSICAL FEATURES:  Number of pages; presence of
                    illustrations

SERIES:             Title of any series in which the book
                    was published (for example, New
                    Directions in Teaching and Learning)

NOTES:              Includes special features, such as an
                    index or bibliography

SUBJECTS:           Library of Congress subject headings
                    assigned to the book for subject
                    searching

OTHER AUTHORS:      Names of persons or corporate authors
                    associated with the book other than the
                    main author

OTHER TITLES:       Titles other than the main title
                    associated with the book

## SEARCHING TIPS

This section describes some techniques that may help you improve your searching of the Online Catalog.

1. <u>Using a Known Title to Find Others.</u>  You may already know of a good book on your topic.  Perhaps your instructor mentioned a book in class, or you found a citation to a relevant book in the bibliography of an encyclopedia article.  You can use the catalog record for a book to help you search for other relevant titles.

   First, call up the Online Catalog record for the book you know by doing a title or author-title search.  When the BRIEF record is displayed, call up the FULL record by typing the code FUL and pressing the [SEND] key.  In the FULL record you will find, following the word SUBJECTS, the list of subject headings assigned to this book by the Library You can then use those headings in a subject search to identify additional titles on the same subjects.

### EXAMPLE

   Suppose you already know the book <u>Fostering Critical Thinking,</u> by Robert E. Young, and have found it useful for the example topic.  If you search this title in the Online Catalog; then call up the FULL record, you will retrieve:

### Example
### FULL RECORD

```
TITLE:   Fostering critical thinking / Robert E. Young, guest editor.
IMPRINT: San Francisco : Jossey-Bass, 1980.
PHYSICAL FEATURES: xiii, 103 p. ; 24 cm.
SERIES:  New directions for teaching and learning ; no. 3
NOTES:   Includes bibliographies and index.
OTHER AUTHORS, ETC:  Young, Robert E.
SUBJECTS: Thought and thinking -- Study and teaching. * Problem solving --
          Study and teaching.
LC CARD: 80080836


     BRF - see locations and call numbers   CIT - return to your citation list
     IND - see list of headings             FOR - see next citation in list
     CAT - begin a new search               CMD - see additional commands
```

   This record has two subject headings which you may want to try in a subject search:

      THOUGHT AND THINKING -- STUDY AND TEACHING
      PROBLEM SOLVING -- STUDY AND TEACHING

2.   <u>Truncation.</u>   Truncation is used to search for variant
     spellings. If you wish to truncate in a keyword search, you
     must type a # at the end of the letters you enter.  For
     example, if you search mainstream# as a title keyword, you
     will retrieve the following titles (along with 136 others):

          <u>Hearing impaired pupils in the mainstream</u>
          <u>Administrative implications of mainstreaming</u>
          <u>The mainstreamed library</u>

     When you search by title (TIL), author (AUT), or subject
     (SUB), truncation is automatic.  If you choose, you may
     simply type the beginning of the search term.  You can do
     this when you know only the beginning of a title or only the
     first word of an author's name or a subject heading.  The
     catalog will display records that match your search term
     exactly and also those that are alphabetically close.

                         EXAMPLE

     AUT/BRZ will retrieve several authors names,
     including Brzezinski, Zbigniew

+-----------------------------------------------------------------+
| Now do a SUBJECT search of the Online Catalog to locate         |
| records for books on your topic.  The next section              |
| describes how to locate books in the Library using the          |
| information you find on the catalog record.                     |
+-----------------------------------------------------------------+

## LIBRARY OF CONGRESS CALL NUMBERS

This section explains how to read Library of Congress (L.C.) call numbers on the books (as opposed to Dewey Decimal call numbers used in school and public libraries) and how to interpret a call number to find its location in the Library. If you are familiar with L.C. call numbers, you may want to skim the first part of this section and go on to read "Determining Locations of Books."

Book Call Numbers and Library of Congress (L.C.) Classification System

Each book is assigned a unique call number that indicates where it will be found and, at the same time, distinguishes it from other books in the Library. Besides being listed on the catalog record, the call number is also placed on the book itself, on or near the spine, so you can go to the shelves and find the book.

How Books are Arranged on the Shelves

Books are arranged on the shelves according to their call numbers. For example, the L section (general education) is shelved before the M section (music). Then, within a section, they are arranged as follows: L,LA,LB,LC,LD, etc. and M,MA,MB,MC,MD, etc.

How to read a call number

You may see call numbers written either of the two ways:

LA267.E26 1984            or        LA267/E26

(Online Catalog)                   (Serials List)

The step by-step process in reading our example call number is summarized below:

1. <u>LA</u>    Single letters are filed before double letters in alphabetical order. That means call numbers beginning with LA come after those beginning with L and before those beginning with LB.

2. <u>LA267</u>    The first numeric part of the call number is always a <u>whole</u> number, which may be followed by a decimal. For example:
    LA265
    LA267
    LA267.4
    LA300

3. <u>LA267.E</u>    Within the LA267s, call numbers are filed alphabetically. In this case, look for the letter "E". For example:
    LA267.D
    LA267.E
    LA267.F

4. <u>LA267.E26</u>    Now comes the tricky part. The number following the "E" is a <u>decimal</u> number, not a whole number. Even though a decimal point may not be present at this location of every call number, it <u>is</u> <u>still</u> a decimal number--i.e., E26 or .E26 are both decimal numbers.
    LA2 7.E156
    LA267E26
    LA267.E3

5. <u>LA267.E26 1984</u>    The last part of the call number may contain the book's publication date. All dates are filed numerically, e.g., 1980, 1981, 1982, etc. Not all call numbers include the publication date. Those call numbers that don't include the publication date are shelved before those that do. For example:
    LA302.S82
    LA302.S82 1984

## DETERMINING LOCATIONS OF BOOKS

### How to Interpret Location Codes

To find books in the Library, you must know the Location Code and the Call Number.  Both pieces of information can be found by using the Online Catalog.  The Location Code tells you the part of the Library where the book will be found.  The call number leads you to the exact location within that part of the Library. Whenever a book is housed in a special location such as a branch library, in the Reference Room, or in the Current Journals, Microforms, and Media Room, etc., that location will be indicated by a special location designation symbol.  The location designation on the Online Catalog record is found in the Brief Record display, below the heading LOCATION.

To interpret a particular location code, consult the Special Locations Codes charts posted throught the Library.

> EXAMPLE:   A book with the location code MUSTAK would be
>            located at the Music Branch Library.

```
AUTHOR:  Levy, Kenneth, 1927-
TITLE:   Study guide to accompany Music, a listener's introduction / Kenneth >
IMPRINT: New York : Harper & Row, c1983.

                Loan     Call
Location        Type     Number               Status

MUSIC /MUSTAK   BOOK     ML160.L5922 1983     In Library
```

> EXAMPLE:   A book with the location ANDERS/ANJUV would be
>            located in the Juvenile Literature Collection in
>            this library.

```
AUTHOR:  Geisel, Theodor Seuss, 1904-
TITLE:   If I ran the circus,
IMPRINT: New York, Random House [1956]

                Loan     Call
Location        Type     Number               Status

ANDERS/ANJUV    BOOK     PZ8.3.G276ID
```

The Special Locations Codes chart has been reproduced on the following page.  The section "Trouble-Shooting" in this handbook describes possible solutions for some of the common problems you may have in locating materials in the Library.

How to Interpret Call Number Locations

Many books have the location code ANSTAK, meaning those books are shelved in the regular bookshelves in the Library.  If a book has the location code ANSTAK, you need to use the Call Number Locations Chart.  The Call Number Locations Chart will direct you to the floor and wing of this Library where your book will be located.  Copies of this chart have been posted throughout the Library and are available at the Reference/Information Desk. The Call Number Locations Chart has been reproduced below:

## CALL NUMBER LOCATIONS

| 1st Letter of Call No. | Floor & Wing | | 1st Letter of Call No. | Floor & Wing |
|---|---|---|---|---|
| A | 5 BLUE | | M | 3 BLUE |
| B | 5 BLUE | | N** | 3 BLUE |
| C | 5 BROWN | | P | 3 BROWN |
| D | 5 BROWN | | Q-QC | 2 RED |
| E | 4 BLUE | | QD-QM | 2 BLUE |
| F | 4 BLUE | | QN-QR | 2 BROWN |
| G | 4 BLUE | | R | 2 BROWN |
| H* | 4 BROWN | | S | 2 BROWN |
| J | 3 BLUE | | T | 2 BROWN |
| K | 6 BLUE | | U | 6 BLUE |
| L | 3 BLUE | | V | 6 BLUE |
| | | | Z | 6 BLUE |

*HO a on 6 BLUE
**Most N's at Architecture & Art Library

The first letter of the call number tells which floor and wing to go in order to find the book. For example, a call number beginning with the letters "LB" will be located on the 3rd Floor Blue Wing, while one beginning with "T" will be located on the 2nd Floor Brown Wing.  Once you get to the bookshelves, then you look for the complete call number.

# INDEXES

Specialized periodical indexes are guides to the contents of a selected group of scholarly journals.  Scholarly journals are those journals containing articles written by researchers and academic specialists whose audience is primarily other researchers, scholars, and students.  You will use these types of indexes to locate articles related to your topic.  By citing scholarly articles in your paper, you can substantiate the conclusions you make.

Subject indexes are usually issued on a regular basis.  Bound volumes covering half a year or a year are common.  Paperbound issues published throughout the year serve as updates to the most recent bound volume.  You will need to check them for the latest information on your topic.  You may also need to check several indexes since each index covers a somewhat different set of journals.

Many indexes may also be searched with a computer.  Searching via computer allows you to combine two concepts, such as critical thinking and social studies education, and find citations to articles or reports which discuss both concepts.  Computer searching also allows you to search multiple years of an index at one time and can provide you with a print-out of the results.

In this chapter, you will be introduced to three major indexes in the field of education:  Education Index, ERIC, and Psychological Abstracts.  You will learn the differences between the coverage of these indexes and how to identify the parts of a index entry. Also included are discussions of computer searching.

## Education Index

Education Index, located on Index Table 5, indexes English
language journals and yearbooks in all areas of education.  It
also contains a section listing citations to book reviews in the
field of education.  Although Education Index is a specialized
index, there are similarities in arrangement between it and
Readers' Guide to Periodical Literature.  If you have used
Readers' Guide, you will find it easy to use Education Index.

Typically the index is used in looking for journal articles on a
particular subject.  Subject headings appropriate for the example
topic "Teaching methods to promote critical thinking skills in
the social studies classroom," would be "Critical thinking"  or
"Social Studies."  When using a printed index, you must look up
each concept and then scan manually for articles which may
discuss both.

If you look up "Social studies" as a subject heading,  you will
find a "See" reference to "Social sciences."  Upon turning to
"Social sciences" you will see that is the subject under which
social studies articles are cited.   Note that there is no
controlled vocabulary or list of terms to use as with the Library
of Congress Subject Headings in the Online Catalog.  You must
depend upon your knowledge of the terminology and the system of
cross-references in the Education Index.

### Example citation from Education Index

**Social sciences**
   *See also*
   Behavioral sciences
   Citizenship education
   Civics
   Current events
   Political science
   Power (Social sciences)
   Sociology
Launching social studies into orbit. K. Stone. il por
   *Soc Educ* 50:37-8 Ja '86

Main subject heading (printed
in boldface type)

Citation to an article about"
Social Sciences" in general.

**Correlation with other subjects**
Advancing critical reading through historical fiction and
   biography. B. A. Lehman and D. J. Hayes. bibl *Soc*
   *Stud* 76:165-9 Jl/Ag '85
Geography on the circumference. A. R. Bodman. bibl
   por *J Geogr* 85:7-11 Ja/F '86
Learning to write in the social sciences. L. Faigley and
   K. Hansen. *Coll Compos Commun* 36:140-9 My '85

Subdivision of the main
subject heading describing a
more specific aspect.

**Field work**
   *See also*
   Participant observation

"See also" reference leading
you to a related subject
heading under which you may
find additional information.

**Research**
   *See* Social science research
      **Statistical methods**
A note on a special application of polynomial regression
   in social science. E. W. Curry and D. Walling. *In*
   *J Math Educ Sci Technol* 16:668-70 S/O '85

"See" reference leading you
from a subject heading or
subdivision that is not used
by the index to one that is.

In order to choose from the citations listed in the index and to locate the periodical articles to which they refer, you must be able to interpret the index entries. The sample entry below illustrates the types of information given for each citation in Education Index.

```
1 ──── Critical thinking
              Thinking critically in an information society: a sociological
              analysis. P. Jarvis. bibl Lifelong Learn 8:11-14 Ap
              '85
                        Teaching ──────────────────────── 2
3 ────────────── Critical thinking in the social studies classroom: do we
                 teach it? G. Unks. bibl Soc Educ 49:240+ Mr '85

              4        5          6        7    8      9
```
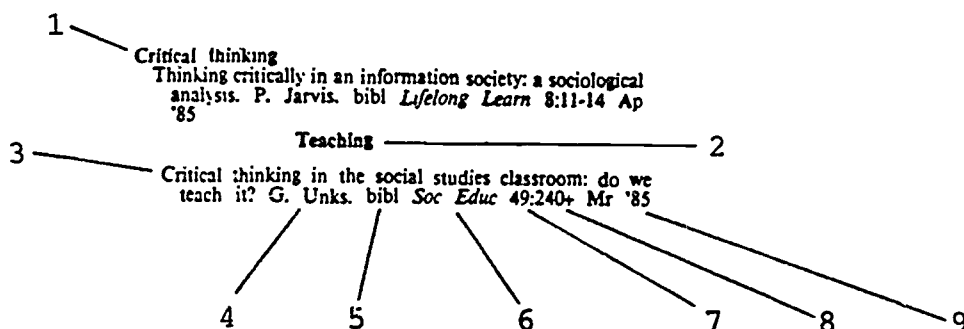
| | | |
|---|---|---|
| 1. | CRITICAL THINKING | Main subject heading. |
| 2. | Teaching | Subdivision of main subject |
| 3. | Critical thinking in the social studies classroom: do we teach it? | Title and subtitle of the article. |
| 4. | G. Unks | Author of the article. |
| 5. | bibl | Abbreviation for a special feature (bibliography). |

An abbreviation in lower case letters often follows the author's name and indicates that the article contains a special feature. A table explaining such abbreviations is located in the front of each Education Index volume.

| | | |
|---|---|---|
| 6. | Soc Educ | Abbreviated title of the periodical. |

These abbreviations have initial capital letters. The table at the front of the index lists these abbreviations and furnishes the full titles of the periodicals.

| | | |
|---|---|---|
| 7. | 49 | Volume number of the periodical. |
| 8. | 240+ | Page number of the article. The + sign indicates that the article is continued on later pages of the same issue. |
| 9. | Mr '85 | Date of the periodical. |

It is important to write down the entire citation in order to make sure you will be able to locate the periodical article in the library. A few general suggestions on using Education Index are listed below.

1.  Read the "Explanatcry Notes" section.

    These general instructions are located in the
    front of each Education Index and will answer
    questions you may have about the index.

2.  Use more than one issue to be sure you have found all the citations that you need.

    There may be more written about your topic in
    one issue than in another. It is also wise
    to record more citations than you expect to
    need because you may not be able to locate
    all the sources.

3.  Search under more than one subject heading.

    Be resourceful in trying other pertinent
    subjects. Although the "See also" references
    will lead you to related topics, think of
    other aspects of your subject that may be
    used in the index.

4.  Check the journal abbreviations in the front of each issue.

    You will save time if you know the exact
    title of the periodical for which you are
    looking.

---

Now check in the Education Index for articles relevant
to your topic. Write down any citations you find
which seem appropriate for your preliminary biblio-
graphy.

---

## ERIC (Educational Resources Information Center) SYSTEM

The ERIC system includes two indexes: Current Index to Journals in Education (CIJE) and Resources In Education (RIE). The printed versions of each are published monthly, and both are located on Index Table 5. These indexes may also be searched by computer, as explained below.

CIJE includes citations and abstracts for journal articles; RIE includes the same for unpublished documents and reports. Both indexes may be useful for your research in education. The most common way to search these indexes is by subject. They share the same set of subject terms, called descriptors, which are listed in the Thesaurus of ERIC Descriptors.

Thesaurus of ERIC Descriptors

The Thesaurus of ERIC Descriptors lists the subject terms used in CIJE and RIE. The Thesaurus is to ERIC what LCSH is to the Online Catalog. It also indicates narrower terms, broader terms, and related terms in the list.

Start your search by using the Thesaurus to identify appropriate descriptors. In the case of the example topic, teaching critical thinking skills in the social studies classroom, there are several concepts involved: Teaching, Critical Thinking, Social Studies.

To look up descriptors you may start with any of the concepts in the topic, but usually it is a good idea to begin with one that has a narrow definition. In this example, "critical thinking" or "social studies" is slightly more focused than "teaching." So, you might look up the following in the Thesaurus:

Descriptor ———————————— SOCIAL STUDIES        Jul. 1966
                                 CIJE: 4207    RIE: 6106    GC: 400
Scope Note ———————————— SN  Social studies consist of adaptations of
                                 knowledge from the social sciences for
Invalid Term —————\              teaching purposes at the elementary
                                 and secondary levels of education
Narrower Term —————————  UF  Social Studies Units (1966 1980) #
Broader Term ——————————  NT  Civics
Related Term ——————————  BT  Curriculum
                                 Social Sciences
                             RT  Anthropology
                                 Controversial Issues (Course Content)
                                 Cultural Education
                                 Current Events
                                 Economics
                                 Geography
                                 History
                                 Law Related Education
                                 Locational Skills (Social Studies)
                                 Political Science
                                 Social Problems

This entry in the Thesaurus indicates that "Social Studies" is a descriptor for CIJE and RIE. It also lists other terms you might want to consider (Narrower Term, Broader Term, or Related Term). You will also find a descriptor for critical thinking. Once you have identified appropriate descriptors (you may find several for each concept), you are ready to use the printed indexes or to do a computer search.

> Use the Thesaurus of ERIC Descriptors to identify terms that represent your topic. Make a list of what you find and divide them into concept groups (i.e., groups of descriptors that are related to each other).
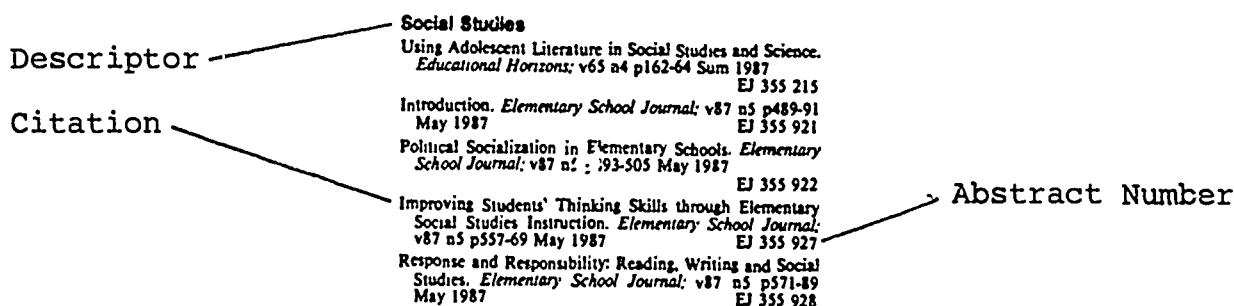
# CURRENT INDEX TO JOURNALS IN EDUCATION (CIJE)

CIJE indexes most of the major education journals. There is some duplication between CIJE and Education Index described in the previous chapter; however, there are journals in each not covered by the other index. CIJE does, however, include many more journals than Education Index.
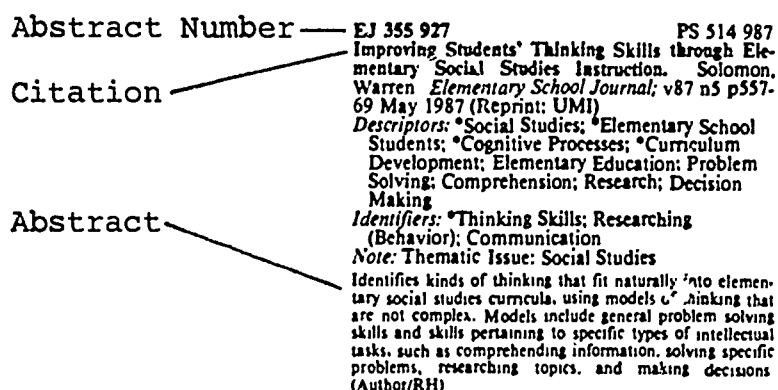
## Finding Subjects in CIJE

1. Look up one of the descriptors you have chosen in the Subject Index section of CIJE.

### CIJE SUBJECT INDEX ENTRY

Descriptor ———

Citation ———

Abstract Number

**Social Studies**

Using Adolescent Literature in Social Studies and Science. *Educational Horizons;* v65 n4 p162-64 Sum 1987
EJ 355 215

Introduction. *Elementary School Journal;* v87 n5 p489-91 May 1987
EJ 355 921

Political Socialization in Elementary Schools. *Elementary School Journal;* v87 n5 ; :93-505 May 1987
EJ 355 922

Improving Students' Thinking Skills through Elementary Social Studies Instruction. *Elementary School Journal;* v87 n5 p557-69 May 1987
EJ 355 927

Response and Responsibility: Reading, Writing and Social Studies. *Elementary School Journal;* v87 n5 p571-89 May 1987
EJ 355 928

2. Scan the titles and write down all the information for each reference you want to read. Include the journal title (in italics), volume number, page numbers, and date.

3. If you wish to read a brief summary (abstract) of an article, look up the EJ (ERIC Journal) abstract number in the front of the same volume.

### CIJE ABSTRACT ENTRY

Abstract Number ———

Citation ———

Abstract ———

EJ 355 927          PS 514 987
Improving Students' Thinking Skills through Elementary Social Studies Instruction. Solomon, Warren *Elementary School Journal;* v87 n5 p557-69 May 1987 (Reprint: UMI)
Descriptors: *Social Studies; *Elementary School Students; *Cognitive Processes; *Curriculum Development; Elementary Education; Problem Solving; Comprehension; Research; Decision Making
Identifiers: *Thinking Skills; Researching (Behavior); Communication
Note: Thematic Issue: Social Studies
Identifies kinds of thinking that fit naturally into elementary social studies curricula, using models of thinking that are not complex. Models include general problem solving skills and skills pertaining to specific types of intellectual tasks, such as comprehending information, solving specific problems, researching topics, and making decisions (Author/RH)

4.    Repeat this process for each descriptor you have chosen.

5.    Check the Serials List at the Reference/Information Desk to
      verify whether or not the Library owns the issues of the
      journals you need and to get the call numbers.  For more
      information about journals see the chapter "Locating
      Journals and Microforms."

---

Using the descriptors you identified in the Thesaurus of
ERIC Descriptors, look in CIJE to see what journal articles
are listed that are relevant to your topic.  Write down
the citations to a couple of articles.

---

## RESOURCES IN EDUCATION (RIE)

As stated earlier, unpublished reports and documents are indexed in RIE. Included in RIE are citations to papers presented at conferences, state education agency reports (such as the Texas Education Agency), publications from local school districts, U.S. government documents, etc. The emphasis with RIE is on comprehensiveness. Therefore, there is a wide range of types of materials included, from practical descriptions of programs to scholarly research reports. The section "Evaluation of Sources" in this handbook provides some suggestions on how you can evaluate potential sources to see if they are research material.

### Finding Subjects in RIE

1.  Look up one of the descriptors you have chosen in the subject section of one of the "Index" volumes on the table. Each year of RIE consists of several volumes.

### RIE SUBJECT INDEX ENTRY

Descriptor

Document Title

ERIC Document Number

Critical Thinking
Assessing Skills and Thinking in Social Studies.
ED 279 671
Counseling as a Critical-Thinking Activity.
ED 278 896
Reasoning in Argument Evaluation.
ED ? '690
Right Brain Activities to Improve Analytical Thinking.
ED 278 953

2.  Scan the titles and write down the ED (ERIC Document) number following each title you want.

3.  If you wish to read a brief summary (abstract) of a document, open the non-index volume on the table that includes the ED number you want. The ED number range of each volume is printed on the spine.

### RIE ABSTRACT ENTRY

ERIC Document Number

Document Title

Abstract

ED 279 671                          TM 870 058
Cornbleth. Catherine
Assessing Skills and Thinking in Social Studies.
Pub Date—86
Note—22p.; One of 46 papers commissioned by the
Study Group on the National Assessment of Student Achievement and cited in Appendix B to their final report "The Nation's Report Card" (TM 870 049). For other papers in this group, see TM 870 050-094.
Pub Type— Opinion Papers (120)
EDRS Price - MF01/PC01 Plus Postage.
Descriptors—Cognitive Ability, *Cognitive Measurement, Cognitive Processes, *Critical Thinking, *Educational Assessment, Educational Testing, Elementary Secondary Education, National Surveys, *Skill Analysis, *Social Studies, *Testing Problems, Testing Programs
Identifiers—*National Assessment of Educational Progress
A cognitive process approach is applied to this discussion of the nature and relationship of skills, thinking, and social studies knowledge. To make understanding explicit, the paper addresses: (1) the meaning of cognitive skills and their role in thinking; (2) generic versus specific skills; and (3) implications for the National Assessment of Educational Progress (NAEP). ..

4.  Repeat this process for each descriptor you have chosen.

5.  RIE documents are on microfiche arranged by the ED number. Microfiche are located in the Current Journals, Microforms, and Media Room, 1st Floor Blue Wing.

NOTE:   ED numbers that are followed by two slashes (e.g., ED 136 129//) are not on microfiche--the abstract will ·tell you how to get them, and some of them may be listed in the Library's Online Catalog. For additional help in locating these documents, ask at the Reference/Information Desk.

In addition to subject, you may also search RIE by institution (e.g., Social Sciences and Humanities Research Council of Canada), publication type (e.g., Guides - Classroom), etc.

> Using the descriptors you identified in the Thesaurus of ERIC Descriptors, look in RIE to see what reports are listed that are relevant to your topic. Write down the title(s) and ED number(s) of a couple of reports.

## ERIC ON COMPACT DISC

As mentioned at the beginning of this chapter, you can search both <u>CIJE</u> and <u>RIE</u> by computer. By using a computer you can search both indexes and multiple years (1966-1979 or 1980 to the present) simultaneously. You may also combine concepts or intermix concepts and publication types. In addition to descriptors, you may also search words in titles or abstracts. The ERIC database can be searched on computer workstations near the Reference/Information Desk. You can tell the computer what you want to retrieve by making selections from menus and lists. There are instructions on the screen and in a flip-chart next to the computer. Additional assistance is available from the staff at the Reference/Information Desk.

Using the system is similar to using the printed indexes in that you must first select the terms you want to search. You may wish to consult the <u>Thesaurus of ERIC Descriptors</u> before beginning a computer search. A computer search is different from the printed indexes in that you will not get a ready-made list of articles or documents to browse, as you would in the printed indexes. The computer will create a list based on what you tell it. One of the major differences is that the computer forces you to divide your topic into concept groups. You may start with any concept group, but you will need to include all concept groups to ensure that the resulting citations deal with the aspect of your topic that interests you. This is accomplished by searching any one of your concepts and then modifying and limiting it with your other concept groups. The illustration below outlines this process.

---

Select terms from the list for concept 1.

**CRITICAL THINKING**          **PROBLEM SOLVING**

> End Group 1
>
> with **F10**

Modify/Limit Group 1 with terms from list for concept 2.

**SOCIAL STUDIES**

> End Group 2
>
> with **F10**

- .
- .
- .
- . (You may continue to modify/limit as long as you like.)

---

Keep in mind that the computer does not "know" what you want unless you tell it via your selections on the screen.

The following screen diagrams are taken from an actual search on the same topic used above to illustrate searching ERIC on Compact Disc.

## SELECTING TERMS FOR CONCEPT 1

Type in your first term and view the list of possible words and phrases in the Word/Phrase Index. In this example you might select "social studies."

```
SOCIAL STIMULI                                          4
SOCIAL STRATIFICATION                                 197      12
SOCIAL STRUCTURE                                      343      15   F2 for
SOCIAL STUDIES                                      4,841      18   elated
SOCIAL STUDIES CURRICULUM                               5            Terms
SOCIAL STUDIES IN SECONDARY EDUCATION (REPORT)         1
SOCIAL STUDIES INSTRUCTION                             2
SOCIAL STUDIES PRIORITIES AND NEEDS                    1
SOCIAL STUDIES TEACHERS                                1
SOCIAL STUDIES UNITS (1966 1980)                       0       2
SOCIAL STYLE                                           2
SOCIAL STYLE MODEL                                     1
SOCIAL SUPPORT                                        26
SOCIAL SUPPORT GROUPS                                868      18
SOCIAL SUPPORT INVENTORY                               1
SOCIAL SUPPORT NETWORKS INVENTORY (FLAHERTY)           1
SOCIAL SUPPORT QUESTIONNAIRE                            1
SOCIAL SUPPORT QULSTIONNAIRE (SARASON)                 1
SOCIAL SUPPORTS NETWORKS
SOCIAL SYSTEMS                                    0 Entries Selected
SOCIAL THEORIES                                  0 Records Found

F1-Help    --Move ⅃ Select/Remove  F10 When Done    Esc-Prev Menu
```

Once you've chosen the terms for your first concept, press F10 and continue with your next concept.

## SELECTING TERMS FOR CONCEPT 2

From this list of terms in the Word/Phrase Index you might select "critical thinking." You might also select "problem solving."

```
CRITICAL SUCCESS FACTORS METHOD                        2
CRITICAL TELEVISION VIEWING SKILLS PROJECT             8
CRITICAL THEORY                                       24         F2 for
*CRITICAL THINKING                                 1,364      12 elated
CRITICAL THINKING SKILLS PERFORMANCE ASSESSMENT        1          Terms
CRITICAL VIEWING                                      17
CRITICALITY                                           10
CRITICALLY                                           610
CRITICALLY ILL                                         1
CRITICALNESS                                           4
CRITICIAL                                              1
CRITICIMS                                              1
CRITICIS                                               1
CRITICISIMS                                            1
CRITICISING                                            1
CRITICISM                                          2,929
CRITICISMS                                           525
CRITICIZABLE                                           1
CRITICIZE
CRITICIZED                                       1 Entries Selected
CRITICIZES                                   1,364 Records Found

F1-Help    --Move ⅃ Select/Remove  F10 When Done    Esc-Prev Menu
```

Once you've chosen the terms for your second concept, press F10 and continue with your next concept, if you have another.

## COMBINING ALL CONCEPTS

The computer automatically combines the concepts groups you have created and indicates the number of results on the screen.

```
         ERIC - CIJE & RIE   1980 - March 1988
1  4,841 Records with Word/Phrase Index of SOCIAL STUDIES
2  375 Records remaining, Limiting to those with Word/Phrase Index of CRITICAL
   THINKING or PROBLEM SOLVING
3  176 Records remaining, Limiting to those with Word/Phrase Index of
   ELEMENTARY EDUCATION or ELEMENTARY SECONDARY EDUCATION
4  38 Records remaining, Limiting to those with Year of Publication of 1986 or
   1987 or 1988
```

```
╔═══════════════════════════════════════════════════╗
║              Select Main Activity                 ║
╠═══════════════════════════════════════════════════╣
║  Display, Print or Transfer the Selected Record(s) ║
║  Modify the current search with additional criteria ║
║  Begin a New Search (clears existing search)      ║
║  Review Search Helps                              ║
║  Quit Easy Menu Mode                              ║
╚═══════════════════════════════════════════════════╝
```

F1-Help   --Move  ⌐-Select                    F9-Restart

## WHAT YOU RETRIEVE

```
                5 of 38  Complete Record
Title           EJ355927  PS514987
                Improving Students' Thinking Skills through Elementary Social Studies
                Instruction.
Author          Solomon, Warren
                Elementary School Journal, v87 n5 p557-69 May   1987
Journal         Thematic Issue: Social Studies
Information     Available From: UMI
                Language: English
                 Document Type: JOURNAL ARTICLE (080);  POSITION PAPER (120);  NON-CLASSROOM
                MATERIAL (055)
                Journal Announcement: CIJOCT87
                Target Audience: Practitioners
                Identifies kinds of thinking that fit naturally into elementary social
                studies curricula, using models of thinking that are not complex.  Models
                include general problem solving skills and skills pertaining to specific
                types of intellectual tasks, such as comprehending information, solving
Abstract        specific problems, researching topics, and making decisions.  (Author/RH)
                 Descriptors: *Cognitive Processes; Comprehension; *Curriculum Development;
                Decision Making; Elementary Education; *Elementary School Students; Problem
                Solving; Research; *Social Studies
                 Identifiers: Communication; Researching (Behavior); *Thinking Skills
                         ***  End of Record  ***   Next: Ctrl+PgDn

          F1-Help  F4-Format  F5-Sort  F7-Records  F8-Print/Xfer  Esc-Main Menu
```

ED Document
Number ———— 33 of 38   Complete Record
Title ——————— ED279671  TM870058
              Assessing Skills and Thinking in Social Studies.
Author————————— Cornbleth, Catherine
              1986
              22p.; One of 46 papers commissioned by the Study Group on the National
              Assessment of Student Achievement and cited in Appendix B to their final
              report "The Nation's Report Card" (TM 870 049). For other papers in this
              group, see TM 870 050-094.
              EDRS Price - MF01/PC01 Plus Postage.
              Language: English
              Document Type: POSITION PAPER (120)
              Geographic Source: U.S.; Pennsylvania
              Journal Announcement: RIEJUL87
              A cognitive process approach is applied to this discussion of the nature
              and relationship of skills, thinking, and social studies knowledge.  To make
              understanding explicit, the paper addresses: (1) the meaning of cognitive
Abstract ——— skills and their role in thinking; (2) generic versus specific skills; and
              (3) implications for the National Assessment of Educational Progress (NAEP).
              Critical thinking is a skill frequently associated with social studies
              learning.  However, attempts to detail a task analysis of critical thinking
              skill have met with problems: It is difficult to define a constant concept of
                    Pgdn                                      Next: Ctrl+PgDn,PqUp

        F1-Help  F4-Format  F5-Sort  F7-Records  F8-Print/Xfer  Esc-Main Menu

Note that these are the same citations as were found by using the
printed indexes.  If you wish to print your citations, you will
need a Copicard (available in the Copy Center, Basement Red
Wing).  The charge for printing is 7¢ per page.  You may also
download your results to an MS-DOS formatted floppy disk for no
charge.

To locate these items in the library, you would use the same
procedures outlined above (i.e., use the Serials List for journal
articles and the ERIC Document Microfiche collection for
documents).  To tell the difference between journal citations and
document citations, note whether the second line of the Complete
Record begins with an EJ or an ED.  EJ means the item is a
journal article; ED means the item is a document.  The ED number
(ED plus six digits) is necessary to locate the microfiche; the
EJ number is of absolutely no use.  More information follows in
the section LOCATING JOURNALS AND MICROFORMS.

| |
|---|
| Use the terms you found earlier in the Thesaurus of ERIC Descriptors to search ERIC on compact disc.  Display or print results.  See if you find the same citations you found earlier when you searched manually in the printed indexes.  Which do you prefer?  Why?  If you do not retrieve the citations, try changing your search strategy by using different search terms. |

## Psychological Abstracts

**Psychological Abstracts**, located on Index Table **6**, is an important index for finding information in psychology journals. These journals often include articles on the psychological aspects of teaching and learning. There is some duplication in coverage between **Education Index**, **ERIC**, and **Psychological Abstracts**; however, there are journals included in **Psychological Abstracts** that are **not** included in the other two indexes.

Like **ERIC**, **Psychological Abstracts** has a subject index and an abstracts section. Therefore, using this index is much like using the **ERIC** indexes. Follow these steps when searching by subject:

1. To find an appropriate subject heading, check the **Thesaurus of Psychological Index Terms** on the table with the index. This is used the same way that you used **LCSH** and the **Thesaurus of ERIC Descriptors**. Each term used in the index will be printed in **boldface** type. Beneath each term you may find additional terms identified as UF (Used For, i.e., synonyms that have not been used), BT (Broader Terms), NT (Narrower Terms), and RT (Related Terms). Select any of these terms (except those labeled UF) that seem to describe your subject.

   Of the two concepts in the example topic, social studies education is probably the more specific in a psychology reference source such as **Psychological Abstracts.**

<div align="center">

EXAMPLE
### Thesaurus of Psychological Index Terms

</div>

Subject heading

Broader Term

**Social Structure** 67
PH P34                          **SC** 48410
  B  Society 67
  N  Caste System 73
      Lower Class 73
      Middle Class 73
      Social Class 67
      Upper Class 73
  R  Dominance Hierarchy 73
      Status 67

**Social Studies Education** 73
PH 172                          **SC** 48415
SN Social sciences education in elementary, junior high, and high schools. Includes history, current events, and political science.
  B  Curriculum 67

2. Look up the subject headings you have chosen in the annual (starting with 1984) or semiannual (before 1984) subject index. Index volumes are labeled with the word **Index**.

3.  Under each subject heading will be a list of descriptive titles highlighting key concepts in each article, followed by an abstract number.

EXAMPLE FROM INDEX VOLUME

A title
from the
Volume 71
Subject
Index,
with its
abstract
number

**Social Studies Education**

citizenship education in social studies curriculums & need for & methods of presocial education, 21673

educational program taught by teacher education students & combining study of Mexican culture & Spanish language, 1st graders, 10623

epistemological philosophical assumptions, social studies teachers. 2447

Kinder-Economy Instructional System, attitudes toward work & reward allocation, kindergartners, 18820

methods for improving reading in social studies, literature review, 24430

reading ability & method of teaching. social studies achievement, 4th graders, 21662

secondary headmasters' reports on students & A level grades, academic performance in social science honors degree course, university students, Great Britain, 16167

small group instruction in social studies classrooms, criticism of current ideas on relationship between critical thinking & individualization, 2462

social research on social studies classrooms, literature review, 2419

4.  Note the volume number on the spine of the index, find the corresponding volume of abstracts that includes your abstract numbers, and locate the abstracts within it to find the citations to the articles you want. Note: Each annual or semiannual volume of abstracts starts over with Number 1; therefore, be sure that the volume numbers of your index and abstracts match, or the citations you find at your numbers won't be the ones you were looking for. For example, if you looked in the Index to Volume 71 and found that abstract number 2462 looked relevant, you would next check the Abstract Volume 71 which contained 2462.

EXAMPLE FROM ABSTRACT VOLUME

The abstract
from
Volume 71 ——————

2462. Common, Dianne L. (Simon Fraser U. Faculty of Education, Burnaby, Canada) Small group instruction in social studies classrooms and the corruption of critical thought. *Theory & Research in Social Education.* 1982(Win). Vol 10(4). 49–67. —Attempts to expose a faulty relationship between 2 metaphors—critical thinking and individualization—that are believed by most curriculum experts and teachers to determine what ought to occur in social studies education and the classroom practice—small group instruction—that is assumed to be guided by them. It is argued that small group instruction as it is typically practiced in social studies classrooms does not have as a probable goal critical thinking; in fact. small group instruction most likely will corrupt thinking. To support this claim. the author examines the social realities of teaching and the type of groups that occur in this environment. (57 ref)

If you are searching current monthly issues of Psychological Abstracts for which no cumulative annual index has yet been published, use the brief subject index at the back of each issue. There are no descriptive titles in these brief indexes, only numbers referring to the abstracts in the front of the issue.

When searching older volumes of Psychological Abstracts, you may prefer to use the multi-year indexes on the opposite side of Index Table 6. Each listing gives you the volume and abstract number to search.

You may also search Psychological Abstracts by author. Beginning with 1984 an author index volume is a separately bound part of the annual index. Prior to 1984 the author index can be found at the beginning of the subject index. Cumulative multi-year author indexes are on the opposite side of the index table.

Psychological Abstracts may also be searched by computer. For more information, see the section "Computer Searching" in this handbook.

---

First, check in the Thesaurus of Psychological Index Terms to find what subject headings apply to your topic. Next, check in Psychological Abstracts to see if any relevant articles have been indexed. The costs for searching this index by computer can be high, so it is a good idea to first see if you are able to retrieve the information you need using the printed index.

---

# LOCATING JOURNALS AND MICROFORMS

Several of the preceding sections have shown you how to use
indexes to find citations to articles in journals. When you find
a citation to an article you want to see, be sure to write down
all the information you will need to locate the article:

1. Author and title of the article
2. Full title of the journal (not the abbreviation)
3. Volume number and date of the journal issue
4. Page numbers for the article

## Locating Journals in the Library

Recent issues of journals (generally the current year) are
located in the Current Journals, Microforms, and Media Room and
are arranged on the shelves by call number. At regular intervals
these issues are collected by the Library, bound into volumes and
shelved with the books in the general collection. If you need an
older issue, check the call number on the Call Number Locations
Chart and look for the bound volume in the bookstacks the same
way you look for books. When journals are sent to the bindery,
the issues are out of the Library for a month. See TROUBLE
SHOOTING for more information.

To determine whether the Library owns the particular issue of the
journal or newspaper you need and to get the call number, you
need to use the Serials List.

## Using the Serials List

The Serials List, a computer print-out in several volumes, is an
alphabetical listing of journals and newspapers in the Library.
It also gives the call number and information on which issues or
volumes the Library owns. Copies of the Serials List are located
at the Reference/Information Desk, in the Current Journals,
Microforms, and Media Room, and on floors 2-5, near the Brown
Wing elevators.

Note the following hints on how to find entries in the Serials
List:

1. Most journals are listed alphabetically by journal name
   (e.g., Teacher Educator).

2. Publications of organizations and associations are sometimes
   listed under the name of the organization (e.g., National Art
   Education Association).

3. Acronyms and abbreviations are listed at the beginning of each letter in the alphabet before any full words beginning with that letter (e.g., G/C/T is listed at the beginning of the "G's," before Garden History).

4. Sometimes there will be two listings for a particular journal. There may be a copy in a branch library and a copy in the main library, or a copy on microfiche and a paper copy. Each copy will have a separate listing in the Serials List.

EXAMPLE - Serials List

CALL NUMBER                    TITLE

L11/S55          American Journal of Education
                      88-      1979-              (Holdings Information)
                      CONTINUES: School Review    (Note about former title)

The HOLDINGS INFORMATION, given under the journal title, tells you what volumes or years of that journal the Library owns ("holds"). In this example, the dashes mean that the Library owns all issues of American Journal of Education, beginning with volume 88, which was dated 1979. The note beginning "CONTINUES" indicates that there was a change in the title of the journal. Issues before volume 88, 1979 will be found under the journal's earlier title, School Review. Just as with any other item in the Library, you need to write down the call number (L11/S55) in order to find the journal itself. Directions cn how to use the Serials List are printed in the front of each volume.

Locating Materials on Microfilm or Microfiche

The entry in the Serials List may tell you that the journal or newspaper you need is on microfilm or microfiche.

EXAMPLE
SERIALS LIST

CALL NUMBER                    TITLE

MIC ROOM/MIC-FILM/    SOCIOLOGY AND SOCIAL RESEARCH. (MICROFILM)
    S316                  12-51.     1927-1967.
                          CONTINUES: JOURNAL OF APPLIED SOCIOLOGY.

"MIC ROOM" means that the journal is located in the Current Journals, Microforms, and Media Room. The call number is S316. Microfilm and microfiche materials are filed in cabinet drawers by the call numbers. Machines are located nearby that you can use to read the article or to make a paper copy. Staff at the service desk can help you use the machines.

## FINDING GOVERNMENT DOCUMENTS

The Federal Government produces a wide variety of publications that are of interest to education researchers. Most government documents owned by the Library are **not** listed in the Online Catalog or in the Serials List. The standard way to identify documents is to use the Monthly Catalog of U.S. Publications on Index Table 19.

The Monthly Catalog lists government documents just as the Online Catalog lists books, but the Monthly Catalog is a printed index similar to a periodical index. You may also use the same subject headings that you used in the Online Catalog (i.e., from Library of Congress Subject Headings). For specific directions on how to use the Monthly Catalog, consult the Library Guide MONTHLY CATALOG, available at the Reference/Information Desk.

### SAMPLE MONTHLY CATALOG CITATION

87-7310

ED 1.322:T 34

Maxwell, Laurie.
   Eight pointers on teaching children to think. — Washington,
D.C. : U.S. Dept. of Education, Office of Educational Research
and Improvement, [1987]
   [2] p. ; 28 cm. — (Research in brief) Caption title. Ship-
ping list no.: 87-58-P. "January 1987"—P. [2]. "IS 87-
104rib"—P. [1]. ●Item 455-G-11
   1. Cognition in children — United States. I. United States.
Office of Educational Research and Improvement. II. Title.
III. Series: Research in brief (Washington, D.C.) OCLC
15234124

### Shortcuts

Sometimes there are easier ways to find government documents on your topic than using the Monthly Catalog. If your need fits one of the categories listed below, use the suggested source:

1.  You need a document with statistical data or charts. Use the American Statistics Index, discussed in the SOCIAL STATISTICS Library Guide and below.

2.  You need a document that is published regularly (e.g., The Condition of Education, which is annual) and you already know the title. Use Andriot's Guide to U.S. Government Publications, available at the Reference/Information Desk.

3.  You need a Congressional hearing or report. Use the CIS Index on Index Table 19. Staff at the Reference/Information Desk can show you how.

4.  You need a document published before 1976 and you have the exact title. Use the cumulative title index to the Monthly Catalog on Index Table 19.

# FINDING STATISTICAL INFORMATION

## American Statistics Index

The American Statistics Index (ASI), located on Index Table 18,
indexes statistical publications of the Federal Government. Some
of the publications included in ASI can also be found by using
the Monthly Catalog, but ASI includes many more statistical
publications than the Monthly Catalog, and it's indexing is
sometimes more thorough. The following example citation will
give you an idea of the types of items indexed in ASI.

### SAMPLE ASI ENTRY

4808-15 WHAT WORKS: RESEARCH
ABOUT TEACHING AND
LEARNING
1986. ix+65 p.
•Item 455-B-2.
Consumer Information Center,
Pueblo, CO 81009 †
ASI/MF/3 *ED1.2:W89/3.
MC 86-14009.
LC 86-601406.
Report summarizing research findings on suc-
cessful teaching methods and learning environ-
ments for elementary and secondary schools,
with background data for various periods 1966-
82. Data are from National Center for Education
Statistics.

There are two other statistical indexes available on the same
index table in the Library. Statistical Reference Index covers
statistical publications from state governments and private
associations. The Index to International Statistics covers
international statistical publications such as those published by
the United Nations. Most of these publications are available on
microfiche in the Library. The Statistical Abstract of the
United States, available at the Reference/Information Desk, is
another helpful compilation of data collected by the U.S. Federal
Government. If you have any questions about using these sources,
consult the Library Guide SOCIAL STATISTICS or ask for assistance
at the Reference/Information Desk.

---

If you feel government reports or statistics would help
substantiate your research, check in the Monthly Catalog
or ASI to see if there is any relevant material.

---

## COMPUTER SEARCHING

Computer searching is simply the use of a computer to find information.  Searching with a computer enables you to search in ways that are not possible in a printed product.  Computer searching is especially helpful in Step 3 of a typical research strategy - preparing a preliminary bibliography.


### Why Search Via Computer

If your topic involves multiple concepts, such as the example topic, "teaching critical thinking in the social studies classroom", a computer search is particularly appropriate.  The computer allows you to combine concepts, thus retrieving citations to materials that deal with all of your concepts.

If your topic entails buzzwords (e.g., CORT), new terminology (e.g., hypertext), or proper names (e.g., Stanford-Binet), computer searching allows you to retrieve citations to documents addressing your topic even if the terms you use do not appear as subject headings.

Sometimes computer databases  ⁻e more current than printed sources.  If you need the latest research on a topic, then a computer search may be appropriate.  Note, however, that in some cases the monthly printed index may be the most current information.

A computer search may also save you time in finding information about your topic since computer searching allows you to search many years at once.


### Computer Searching Options

1.  **Search a database via compact disc in the Library.**

    This option is explained in more detail in the previous section on ERIC.  The computer workstations are located behind the Reference/Information Desk.  This ᴄption is available to anyone all the hours the Library is open, and assistance is available from staff at the Reference/ Information Desk during the hours that the service desk is open.  Searching and downloading are free; printing costs 7¢ per page. (Note:  Each compact disc product works differently.)

2.  Search a database online.

    You connect to a remote mainframe computer that provides
    access to many different databases covering a wide variety of
    subject areas.  There is a charge for online searching, but
    the cost can be quite reasonable if you do the searching
    yourself and plan your strategy properly before beginning.


You may do online searching in one of the following ways:


A.  You do the search in the Library.

    You read a short manual telling you how to formulate your
    strategy and how to use the computer system.  The manual is
    available at the Reference/Information Desk and the Reserves
    Desk.  Librarians are available to give advice on planning
    your strategy.  You then use a computer yourself to retrieve
    any relevant citations.  This service is known as **Quick
    Search**.  It is available by appointment evenings Monday
    through Thursday and afternoons Saturday and Sunday.  The
    cost is quite low compared to option B below.  Ask the staff
    at the Reference/Information Desk for further information.
    **Quick Search** is available to anyone.


B.  A librarian does the search in the Library.

    A librarian discusses your topic with you and helps you plan
    a search strategy.  The librarian then uses a computer to
    retrieve any relevant citations.  This service is by
    appointment and is available Monday - Friday from 9 to 6.
    Searching done by librarians is restricted to UH students,
    faculty, and st.    This is a more expensive option.

C.  You do the search at home.

You get your own password from one of the companies that offer online searching.  As with option A, you plan your own strategy, and librarians are available to consult for any questions you might have.  You then use your own equipment at home and do the search at your convenience.  For a listing of low-cost home services, stop by the Reference Offices on the 1st Floor of the Library.

Select the Most Appropriate Database(s)

In addition to deciding which computer searching option you prefer, you will also need to determine which databases to search.  While in most cases there are no right or wrong databases, one or two databases may be clearly more appropriate. One of the goals of this handbook has been to introduce you to the major indexes and databases available for educational research. Staff at the Reference/Information Desk can help you with questions about selecting databases as well as selecting printed indexes.
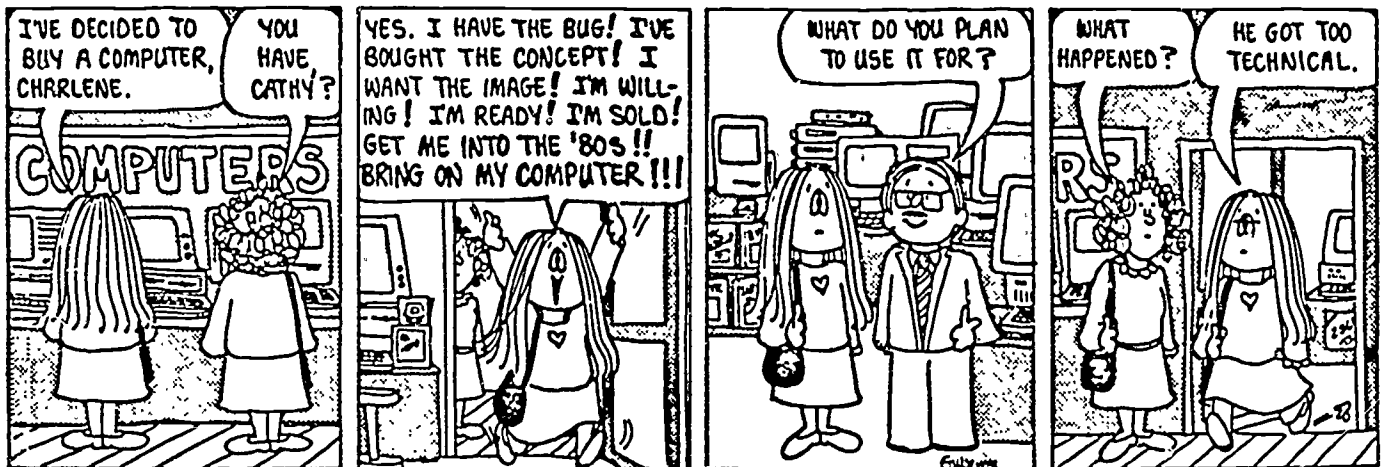


CATHY  1985 * UNIVERSAL PRESS SYNDICATE.
Reprinted with permission.  All rights reserved.

## Trouble-Shooting

The education materials in the Library are heavily used. At some point in your research you will most likely find that something you need is not on the shelf or that the Library does not own an item you need. This section discusses options available for use in those cases.

Basic Services

RECALL -        If a book you need is checked out, you may request at
                the Circulation Desk that the book be recalled. The
                person who has the book checked out will be asked to
                return the book after having had it one week.
                Library staff will notify you when the book is
                returned.

SEARCH -        If a book is not checked out and you cannot locate it
                on the shelf, or if you cannot find a volume of a
                journal, you can place a request for a search with
                the staff at the Circulation Desk. They will look
                for the item and notify you when they find it.

REFERRALS -  If we do not own the journal issue or book you need,
                staff at the Reference/Information Desk can help you
                determine which Houston area libraries have the item.

INTERLIBRARY LOAN (ILL) -
                If we do not own the item you need, we can borrow a
                book or get a photocopy of an article for you from
                another library. The service is free; however, it
                takes an average of 4 weeks to get materials through
                ILL, so you need to allow plenty of time. If you
                have questions about ILL, ask the staff at the
                Reference/Information Desk for additional
                information.

The following section summarizes common problems and possible solutions to try.

No issues of a journal we own are on the shelf.

    A. Recheck the call number in the Serials List.

    B. Check with the staff at the service desk in the Current Journals, Microforms, and Media Room.

The journal issue you need is missing.

    A. Recheck the Serials List to make sure we own the journal issue.

    B. Check the Reshelving Area, 3rd Floor Red Wing.

    C. Check around photocopy machines.

    D. Check at the service desk in the Current Journals, Microforms, and Media Room to verify where the issue is suppose to be.

    E. Check the Serials List to see if there is a second copy on microfilm or in a branch library.

    F. Have a search placed on the issue at the Circulation Desk.

The pages you need are missing.

    First, turn in the volume to the staff at the Circulation Desk. We will get the pages replaced.

    A. Check the Serials List to see if there is a second copy on microfilm or in a branch library.

    B. Ask the staff at the Reference/Information Desk to refer you to a Houston area library.

    C. Request the material through ILL.

A journal issue is at the bindery.

We send journals out to be bound into book volumes.  This
process usually takes about a month.

A.   Check the Serials List  to determine if there is a second
copy on microfilm or in a Branch Library.

B.   Ask the staff at the Reference/Information Desk to refer
you to a Houston area library.


LIBRARIAN'S ADVICE

1.   START EARLY.   Research takes time.

2.   If you have trouble finding the item you need, ask for
assistance at the Reference/Information Desk or at the
Current Journals, Microforms, and Media Service Desk.

3.   As you compile your preliminary bibliography, be thorough.
Write down all the relevant citations you find in each source
(index, catalog, etc.) so that you will have more than enough
citations in case you later have trouble finding some of the
materials.  This may save you a lot of time in the long run.

4.   Keep track of where you have looked and which subject
headings you used in case you need to go back to an index to
locate additional sources later.

5.   Be persistent.
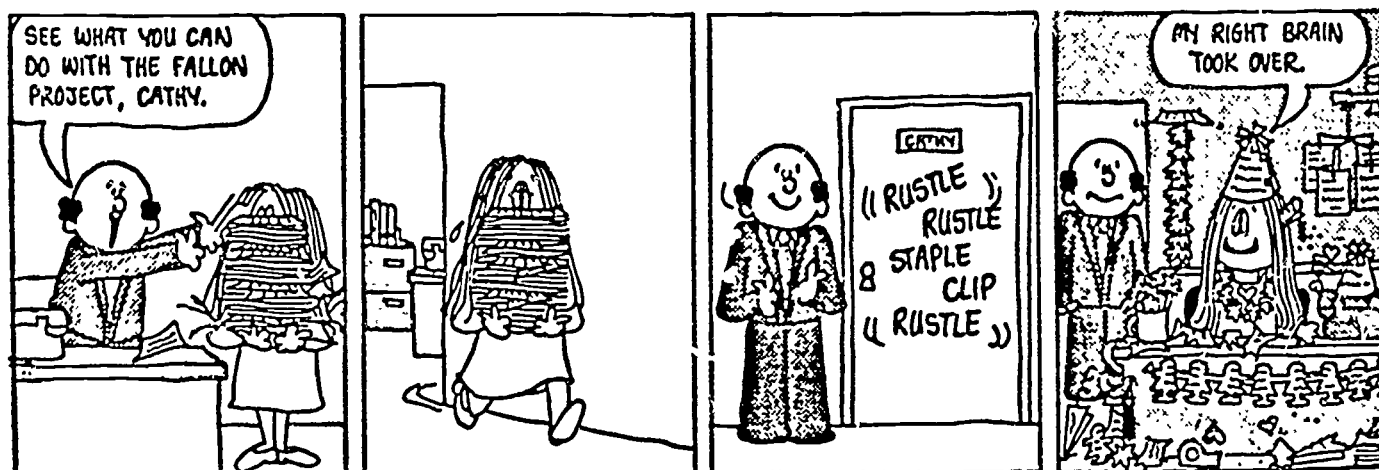


CATHY   1984 * UNIVERSAL PRESS SYNDICATE.

# EVALUATION OF SOURCES

## Appropriateness of Materials

When you are collecting materials for a research project or
paper, it is important to keep in mind that not all items are
equally appropriate.  Different publications serve different
purposes.  For instance, The Chronicle of Higher Education is a
well respected newspaper that reports news of local and national
activities that affect the operation of schools, colleges, and
universities at all levels in the higher education system.  The
American Journal of Education, on the other hand, publishes
reports on the latest scholarly research in the field of
education.  One is not more important than the other; rather,
they serve different functions.

Depending on your topic and the depth of your paper, you may need
to limit your bibliography to one type of material.  That is not
to say that you will not use other types of material in the
process of doing research.  You may begin with an article in the
Encyclopedia of Education that may refer you to a book that may
quote a journal article dealing with related research.  This
article may be ten years old, but it may yield the name of
someone who has written in that specialty.  With this name you
may be able to locate other reports of current research in
progress.

The point here is that different types of sources perform
different functions at various points in the research process.
As you compile your final bibliography, however, you will want to
include only those items that are most appropriate.  Below are
some guidelines to help determine the value of particular items
for your research.

## Specific Clues

There are a number of ways to determine the value of a particular
item for your research.  First, you must decide the nature of
your paper or project.  Are you writing about research conducted
by others on critical thinking?  Are you presenting popular views
on the state of public education?  Are you compiling a history of
social studies teaching?  Or are you yourself measuring the
effects of classroom techniques on student achievement?

Each of these approaches may require different types of sources.
You can avoid certain sources that will be non-productive if you
know ahead of time the nature of your paper or project.

You may be able to determine the value of a book for your research based on the author or the publisher. If you've read something useful by a particular author or if he or she is well known for research in your area of interest, search for all of his or her work on your subject. These are likely to be important publications.

Just as individuals become known for their contributions to a particular field, so do publishers. Some publishers are highly specialized in certain areas of research. Others are more general in scope. Once you have identified a few books that are relevant to your topic, note who wrote them and who published them. This information may assist you in evaluating other items that you find. ——

The most common and most time-consuming way to evaluate material is to read the books and articles that you find. Although nothing can replace reading and analyzing the content of a book or article, there are some clues that can help you identify those items which will be most productive for you. These methods can assist you in determining what to read first, but do not depend entirely on them.

## Books

Glance at the table of contents. The organization of thoughts as presented in the table of contents will provide an outline of the author's position. The information there will also give you an idea about the depth of treatment covered in the text.

Skim the preface. The opening remarks before the first chapter often express the author's intent in writing the book. Usually, this short note will assist you in determining the focus and value of the book to your research.

Check for bibliographies. Lists of materials the author consulted are frequently printed at the end of each chapter or at the end of the whole book. Books that do not include such a list may not be regarded as scholarly. This is not always true, but bibliographies are generally expected in research-oriented texts. The appearance of bibliographies not only indicates the value of a book, but also provides additional references for you to consider.

# Journal Articles

<u>Check the publication process for the journal.</u>  Scholarly journals send all submitted papers through a refereeing process. Each paper is reviewed by specialists who determine its value in comparison to other literature in the field.  Journals that do not use this process are more likely to print non-research-oriented papers.  Some journals print these editorial policies in each issue; others print them once a year.

<u>Check the publication credits in the journal.</u>  Most journals have a brief statement about their mission, usually printed on one of the first pages in each issue.  This statement will tell you if the journal has a particular focus or bent, if the journal is intended to report research or items of general interest, or if it serves a specific constituency.

<u>Check the publisher.</u>  Many professional journals are published by organizations or associations.  This information usually appears on one of the first pages in each issue.  Depending on the major thrust c. the organization, you may be able to determine whether or not its publications are worth reading or citing.  Some associations publish more than one journal.  If this is the case, one may be a newsletter covering events and people to keep members up to date, and the other journals may print research in various specialties.

<u>Check for advertisements.</u>  Most scholarly journals have few, if any, advertisements printed in them.  If a journal has many ads, it is probably a general-interest or news magazine.  Some professional journals include advertisements for items that are of interest to that profession.  Advertisements, however, usually indicate commercial, mass-market publications, not the type of so.rce you should prefer to quote in a research paper.

<u>Check the organization of the article.</u>  Most research articles follow a standard outline of presentation:  Statement of the problem, review of the literature, research method employed, results, discussion, conclusion.  Although there are many variations on this theme, each of these elements will be present in a research article.  Sometimes it is not possible to determine if this outline has been followed without reading the article. Other times the subheadings printed in the article will indicate where each section begins.

## Documents

The value of documents can be determined in a similar fashion.
One additional clue is the sponsor of the research reported.
Many government agencies and professional associations sponsor
research projects. Reports generated by these projects will cite
these sponsors. If a document cites a respected educational
association as its sponsor, it is more likely to have scholarly
merit than those items that do not.


## Another Perspective

Sources may also be divided into three categories: primary,
secondary, and tertiary. Primary sources are direct reports of
what the author has done, i.e., original research. Secondary
sources report what others have done, what's new in the field,
reviews of research in progress, etc. Tertiary sources are
compilations of established knowledge, such as found in
encyclopedias and handbooks. Although all three types of sources
can be very helpful, it is important to cite research as it is
reported by the persons doing it, if at all possible. "Get it
from the horse's mouth," so to speak.


## Conclusion

You will note many "maybes," "probablys," and "most likelys" in
the discussion above. This is because none of these are
guaranteed rules; they are simply guidelines. Sometimes they may
work; other times they will not. It is important to keep in mind
that nothing replaces reading the book, article, or document.
However, you may not be able to read everything. These
guidelines can assist you in determining which items are most
crucial to your research and which are of lesser importance.

# FORMATTING YOUR FINAL BIBLIOGRAPHY

Once you have decided which citations you want to include in your final bibliography, you will need to put them into an appropriate format. The College of Education requires that you follow the guidelines established in the <u>Publication Manual of the American Psychological Association</u> (short title: <u>APA Style Manual</u>), available at the Reference/Information Desk. The <u>APA Style Manual</u> describes one way to write and publish research, including citing references.

The manual is easy to use with an index and a table of contents. Pages 118-133 list numerous examples of different types of publications you may need to cite (e.g., journal articles, books, dissertations, etc.). There is a special index to these examples on pages 118-119. Below are three examples of the most common publication types taken from the sample topic:

## BOOK

Catalog Citation (FULL Record)

```
AUTHOR:   Chance, Paul.
TITLE:    Thinking in the classroom : a survey of programs / Paul Chance ;
          foreword by Ronald S. Brandt.
IMPRINT:  New York : Teachers College Press, c1986.
PHYSICAL FEATURES: xii, 164 p. : ill. ; 23 cm.
NOTES:    Includes index. * Bibliography: p. 152-159.
SUBJECTS: Creative thinking (Education) * Thought and thinking -- Study and
          teaching. * Problem solving -- Study and teaching.
LC CARD:  85017335
ISBN:     0807727946 (pbk )
```

APA Format

Chance, P. (1986). <u>Thinking in the classroom: A survey of programs.</u> New York: Teachers College Press.

## JOURNAL ARTICLE

Index Citation

Improving Students' Thinking Skills through Elementary Social Studies Instruction. Solomon, Warren *Elementary School Journal:* v87 n5 p557-69 May 1987 (Reprint: UMI)

APA Format

Solomon, W. (1987). Improving students' thinking skills through elementary social studies instruction. <u>Elementary School Journal, 87,</u> 557-569.

<u>ERIC DOCUMENT</u>

Index Citation

Cornbleth. Catherine
Assessing Skills and Thinking in Social Studies.
Pub Date—86
Note—22p.; One of 46 papers commissioned by the
Study Group on the National Assessment of Stu-
dent Achievement and cited in Appendix B to
their final report "The Nation's Report Card"
(TM 870 049). For other papers in this group, see
TM 870 050-094.
Pub Type— Opinion Papers (120)
EDRS Price - MF01/PC01 Plus Postage.

APA Format

Cornbleth, C. (1986). <u>Assessing skills and thinking in social</u>
    <u>studies.</u> Cambridge, MA: National Academy of Education, Study
    Group on the National Assessment of Student Achievement.
    (ERIC Document Reproduction Service No. ED 279 671)

Note:  ERIC documents are not necessarily easy to cite.  APA
format requires that you cite a sponsor if one exists.  This
information is usually found in the citation or the document
itself.  Occasionally, as in this example, you will need to do
additional digging to find the name and geographic location of
the sponsoring organization or institution.  You may be referred
to another ERIC document or you may need to use other reference
sources.  For assistance in doing this, ask at the Reference/
Information Desk.


This section has briefly outlined APA format for citations in
your annotated bibliography.  When you eventually write your
paper, you may append to your paper the references you actually
use.  For examples of how to cite these references in the text of
your paper, refer to pages 107-111 of the <u>APA Style Manual.</u>