

Starting Out Right: Teaching Information Literacy Skills to New College Students

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Every summer at the University of Michigan, the Comprehensive Studies Program offers a summer course to a select group of incoming students. These are students in good academic standing who have, in general, graduated from high schools with weak college preparatory programs. This transitional program "Summer Bridge" is designed to acquaint students with college life and equip them with the skills they need to succeed.

The staff of the Comprehensive Studies Program have always considered information literacy a critical element in the students' preparation for academic success. Comprehensive Studies Program faculty rely on librarians at the University of Michigan Undergraduate Library to provide instruction in information-handling skills. Although the *UGL Workbook* has been the major component of the library instruction segment of the Summer Bridge program for several years, in the summer of 1988, the faculty and librarians chose to try a new approach. Working together, we developed an instructional session intended to provide students with some basic concepts of information literacy. Instructors anticipated that, in learning these concepts, students would begin to develop the ability to evaluate both information and information sources. A ninety-minute session covered the following:

- natural vs. controlled vocabulary and how vocabulary influences search strategy; including the use of thesauri and subject headings
- critical thinking: evaluating the research topic in light of available sources; the role of automated research tools
- how information is generated: a discussion of primary vs. secondary sources; the place of "tertiary" or "finding" sources; when to use automated sources

Students consolidated the classroom instruction by completing an exercise on each of these concepts. The exercises were designed to enable them to begin synthesizing information for their assigned research topic.

Although only a beginning, this instructional program gave students a solid base for developing skills to succeed in an information-rich society.

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CLASS OUTLINE

I. INTRODUCTION: Students are greeted and librarian instructors are introduced. The purpose and goals of the class are briefly described. Students are encouraged to take notes.

II. NATURAL LANGUAGE VS. CONTROLLED VOCABULARY: Getting the most out of subject searching

Coverage: The differences between natural language and controlled vocabulary; the importance and use of subject thesauri, such as the Library of Congress Subject Headings (LCSH).

Activity: Students are given a one page article on marihuana to read and after breaking up into small groups, are asked by the instructor to come up with three to eight terms which best describe the article. The instructor writes all the terms on the black board.

Discussion: Using marihuana as an example, the instructor presents the fact that there are often many words or terms used to describe the same phenomena and asks the students how they would solve the dilemma of not knowing which term to use when doing a subject search. After discussing possible solutions with the class, the instructor then introduces the concept of controlled vocabulary. LCSH is introduced as an example of a controlled vocabulary thesaurus and a transparency of the entry on marihuana in LCSH is shown and discussed with the class. The discussion concludes with an overview of the benefits of using a subject thesaurus when doing subject searching.

III. CRITICAL THINKING: Becoming educated information consumers

EVALUATING YOUR TOPIC

Coverage: The role of constant evaluation in focusing a research topic and making the topic more interesting. The importance of using the information as opposed to merely collecting information.

Activity: Students are presented with a set of questions to consider in the process of doing research. These questions are discussed and they are asked to add more questions to the list. New questions are written out on the blackboard:

Are there any terms that need to be defined?

What are the main issues?

Where is this important? What is the context of the topic? (historical, social, etc.)

What are the critical timelines?

How has this been viewed historically? How is it viewed now?

What are the varying points of view that are relevant? (political, social, economic, etc.)

What discipline(s) has/have the most relevance?

EVALUATING YOUR SOURCES

Coverage: Why all sources are not created equal. Some of the problems researchers should look for as they conduct research (e.g. bias, age, inadequate coverage of the topic). Considering the value of a source's contribution to the research.

Activity: Students receive copies of two articles on the same topic (e.g. the psychology of twins) -- one from a psychology journal and one from a popular magazine. Students discuss how these differ and when one might be a better source of information than the other. Students also discuss how books differ from articles in general and how the different sources complement each other.

Activity: Students are given an "assignment" to do a research paper on the Reagan Presidency. They then see a list of made-up titles and are asked to evaluate these sources based on the brief information given.

IV. THE GENERATION OF INFORMATION: Understanding the development of information

Coverage: Using a timeline approach, how information develops and matures and builds on itself. How today's news may become tomorrow's scholarship. The contribution of working backward along the timeline from general background, primary resources to specific, primary sources.

Activity: Students are told that it is now 1964 and President Kennedy has just been shot. They trace the progress of information about the event from word-of-mouth to television, daily news sources, magazines, books and journals, reference and research sources.

V. TIPS ON DOING RESEARCH

Coverage: Using reference sources to find background and factual information; how to find books in the University of Michigan(U of M) Undergraduate Library; using indexes to find periodical literature; how to locate periodical literature at the U of M Undergraduate Library; getting help at the reference desk.

Discussion:

1) Using the reference collection: The librarian discusses the various types of tools found in a typical reference collection and explains that it is a good idea to begin one's research there, particularly if one needs to find definitions, facts or a broad overview of a topic.

2) Finding books at the U of M Undergraduate Library: The instructor explains how the U of M's library cataloging system, including the newly implemented online catalog MIRLYN, works, and how to locate books in the Undergraduate Library.

3) Finding periodical literature: The major differences between magazines and journals are reviewed. The instructor explains that such literature is found by using periodical indexes, and that there exist different indexes for different disciplines. The mechanics of how to find periodical literature at the U of M are reviewed.

4) Getting help: The instructor briefly explains the role of the reference librarian in the research process and encourages the students to keep in mind that the reference staff is always eager to help the students with their research questions.

VI. CONCLUSION

Review of major concepts covered in class

- 1) Natural vs. controlled vocabulary
- 2) Critical thinking
- 3) The generation of information
- 4) Tips on doing research

Explanation of class assignment

Summer Bridge Library Research Skills Program July 1988

Name _____

Date _____

Article # _____

Review exercise #1

- a. You have received an article from a popular periodical. Read the article and give it one or more subject headings using *your own* terms. Write these subject headings below.

- b. Look in *Readers' Guide to Periodical Literature* (either the original paper index or the computerized version) for your article. Under what subject(s) did you find it? Below write the *assigned* subject headings for your article.

- c. If you wanted to find articles related to your topic in scholarly journals, what index(es) would you use?

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- d. Look in an index to scholarly journals. Find an article related to your assigned article. Under what subject heading did you find it?

- e. Write down the *citation* (author, title, journal name, volume, pages, and date of publication) to a scholarly article related to your assigned article.

Name _____

Date _____

Review exercise #2

- a. On a separate piece of paper, list the important questions you need to ask yourself when evaluating your paper topic. For example, one important question is what disciplines are involved. Attach that sheet to your exercise pages.
- b. Write down your *paper topic* for class (not the article in exercise #1). Then evaluate your topic using the questions in part a. Write out the answers in brief below.

Name _____

Date _____

Review exercise #3

- a. Imagine that you have access to all the information in the world. If you wanted to locate primary sources on your paper topic, what kind of information would you use (for example, data from scientific studies)? List these below.
- b. Find two of the following on your paper topic: a book, a scholarly journal article, or a popular magazine article. Below briefly compare the two types of sources.

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Evaluating sources of information

- What kind of source is it? Is it a book, a magazine or a journal? Is it appropriate for the paper?
- Who is the author? What is his/her bias?
- When and where was this published? Is the timeframe appropriate for the paper?
- Who is the publisher?

Primary sources vs. Secondary sources (a partial list)

Primary sources

manuscripts
documents
eyewitness accounts
diaries
letters
transcripts
newspapers

Secondary Sources

books
articles
essays
newspapers

Evaluating sources of information

The Role of the Presidency in the United States by
Ronald Reagan

Reagan as President by Opie Que, Chair, U.S.
Communist Party

Ronald Reagan : A Biography published in 1974

The American Presidency published in Libya

Marihuana

sa Cookery (Marihuana)

x Ganja

 Marijuana

xx Cannabis

 Drug Abuse

-- Law and Legislation

Marijuana

See Marihuana

sa = this is a related term which you can try

x = this term is not used

xx = this is a broader term; it is used

Some differences between scholarly journals and popular magazines

magazine

- general audience
- journalist or generalist author
- usually no bibliography
- often written like a story

journal

- scholarly reader (professor, student, etc.)
- written by person in the field
- has bibliography or references
- usually has specific structure

PREPARING RESEARCH PAPERS

The research paper presents the results of careful investigation of a subject. To be successful, it must clearly express facts and ideas and must accurately document sources used. Preparation is the key to writing a good research paper. This includes finding information, selecting and interpreting data, and evaluating source materials. This guide suggests a research strategy which will help you fully exploit UGL resources.

CHOOSE A TOPIC

Select a general topic which interests you and which falls within the scope of your assignment.

Obtain background information.

- Familiarize yourself with facts, trends, concepts, and terminology by consulting a GENERAL ENCYCLOPEDIA for an introduction to your subject, a SUBJECT ENCYCLOPEDIA for specialized information, or an INTRODUCTORY BOOK (or an article or chapter in a textbook, a history, or a survey) for an overview of your topic.
- Look at the BIBLIOGRAPHIES which may accompany these background sources to identify likely titles.

Limit your topic.

- Briefly outline the facts and concepts you already know and write out questions which might be asked about the subject.
- Select as your research topic the questions or ideas which seem most interesting and significant to you.
- Decide on the purpose of your paper. Is it to persuade, to explain, to inform?
- Write a tentative thesis statement which clearly indicates the purpose of your paper.

COMPILE A TENTATIVE BIBLIOGRAPHY

Make a list of books and journal articles you think will be useful in your research.

Finding books.

- Check the MIRLYN ON-LINE CATALOG and the CARD CATALOG by author and title to see if the UGL has the materials which were listed in the background sources. Copy down the call numbers of the ones you find.
- Look in the CATALOGS for lists of subject-related materials under an appropriate subject heading followed by BIBLIOGRAPHY.
Example: ARCHITECTURE--BIBLIOGRAPHY
If you find a suitable bibliography, look in it for books which are pertinent to your topic. Copy down the author and title of any books you think could be useful and then check the CATALOGS to see if the UGL has them.
- Identify subject headings which you might use to find books on your topic. There are two ways of doing this:
 - Consult the *Library of Congress Subject Headings* for a list of headings. These are the red books located on a dictionary stand near the CARD CATALOG.
 - Look at the "tracings" along the bottom of cards in the CARD CATALOG. If you know a work appropriate to your topic, look it up by the author. Its subject tracings, also listed in the MIRLYN record, can be used to find other likely books.

Finding periodical articles.

- Periodical INDEXES and ABSTRACTS are used to find newspaper and journal articles by looking up either subjects or authors. Use them to select articles which appear to bear on your topic.
- Copy down the author, title, name of journal, page numbers, and date for each article which you select.

BEGIN PRELIMINARY RESEARCH

Skim the books and articles in your tentative bibliography.

- Evaluate them for usefulness, eliminating obviously unsuitable items.
- Check the bibliographies of these books and articles for additional sources.
- Compile a working bibliography.

EVALUATE YOUR PROGRESS

- Is there enough material?
- Can you complete your research in the time available?
- Can you adequately cover the topic in the paper's prescribed length?
- Revise the topic as necessary.

BEGIN IN-DEPTH RESEARCH

- Study the material in your working bibliography.
- Take notes. Be sure to include full bibliographic information for each source used (author, title, publisher, place and date of publication).

SOURCES OF FURTHER ASSISTANCE

- REFERENCE STAFF.
- Guides to research and writing papers:

MLA Style Sheet (UGL Reserve Z 253 .M68 1984 and available at Reference Desk)
Manual for Writers of Term Papers, Theses, and Dissertations (LB 2369 .T93 1987 and available at Reference Desk)

Student Guide for Writing College Papers (LB 2369 .T94 1969a)

American Psychological Association Publication Manual (UGL Reserve Z 253 .A55 1983 and available at Reference Desk)

MLA Handbook for Writers of Research Papers (available at Reference Desk)

Chicago Manual of Style (UGL Reference shelves Z 253 .C532 1982)

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RESEARCH HINTS

Nothing will guarantee that any paper you write will get an "A" rather than a "B", but the points listed below may give your research a special edge. When you think you've finished all of your research, stop and ask yourself these questions. Then feel free to drop by the Undergraduate Library's Reference Desk for assistance in digging a little deeper into your research topic.

* **BACKGROUND.** Do you fully understand the background of your topic? Are you relying solely on what you have learned in class and from your textbook? Take the extra step of going beyond the obvious information that everyone else will have too by locating some broad outlines of the subject. For example, the *Encyclopedia of the History of Ideas* can help you get a more rounded perspective on many basic concepts in philosophy and history. The staff of the UGL Reference Desk can help you find material for your background research.

* **DEFINITIONS.** Have you defined your terms? Even if you have a basic understanding of the meaning of a word or phrase, it would be helpful to find a precise definition. Everyone knows what an "attitude" is, but psychologists have a very precise definition in mind when they use that word. Specialized dictionaries in fields from art to math can help you nail down a term.

* **CONTEXT OF CURRENT TOPICS.** Have you fully explored the context of your topic? Even the most current topic will have something of a background. Look at the recent history of the people involved. What issues are central to the event?

* **CONTEXT OF OLDER TOPICS.** Have you carefully covered the more recent information on a well established topic? Water pollution has been written about in journals, books and magazines for decades. You can write about the problems everyone discusses or you can go beyond that by analyzing recent events.

* **PERSPECTIVE.** Have you objectively considered every side of the issue you are discussing? Even in a position paper, where you are required to support one side or the other of an argument, it pays to understand all of the issues. In political science, for example, we tend to think of the presidential race as Democrat versus Republican. But there are other parties and even splinters within the two major parties. Consider the advantages of keeping your perspective as broad as possible when completing your research.

* **FORMAT.** Have you obtained information in as many appropriate formats as possible? Many people do not consider any research sources beyond books, magazines, journals, and newspapers. The libraries on this campus are rich in manuscripts, letters, diaries, statistics, maps, charts, and graphs. At least reflect on the possible value of other formats in your presentation.

* **QUALITY.** Have you analyzed the quality of your research material? Surrogate motherhood, for example, can be found as a topic in both the *New York Times* and the *National Enquirer*. Which would you choose as a reliable, authoritative source? Much subtler distinctions can be made in almost every field. Do you need scholarly journal articles written by professionals in the field for the education of their colleagues or do you need popular magazine articles which report news written by journalists for the information of the general public? Each has an appropriate place. Have you chosen the right one for your paper? Is the author of the book you quote so frequently a member of the organization she is analyzing? Is the publishing company owned by a political organization? Is the literary critic you are citing known in his field as an advocate of a particular school of criticism?

* **COVERAGE.** Have you indeed found most of the material it is possible for you to find on your topic? Even the most sophisticated researcher, can remain unaware of new sources. The good senior astronomy major will know about the *General Science Index*. The great senior astronomy major will know about new books such as *Patrick Moore's A to Z of Astronomy*. If you feel that you have covered everything completely, take one more minute to ask at the Reference Desk for any further sources.

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FINDING PERIODICAL ARTICLES

Popular magazines - for the layperson, uses non-technical language; provides general information on a wide variety of subjects.

Scholarly journal - usually reports current research on a specific topic; some jargon/technical language used; use for writing scholarly research papers.

HOW DO I GET TO AN ARTICLE ON MY SUBJECT?

USE AN INDEX OR AN ABSTRACT!

For magazines: *Readers' Guide to Periodical Literature, Infotrac*

For journals: subject specialty indexes such as *Psychological Abstracts, Social Sciences Index, Education Index, Biology Digest*, etc. Ask at the Reference Desk for ideas on which indexes might be most helpful for your topic.

USING THE INDEXES

Indexes are arranged, for the most part, alphabetically by subject. You'll probably want to think of several items under which your topic might be listed. Again, ask at the Reference Desk for suggestions. Under many subject headings in the indexes are "see also" references, which can give you additional places to look for information on your topic.

Disarmament and arms control

See also

Reagan-Gorbachev summit conference, 1987
Arms control and human rights. K.L. Adelman. *World Aff* 149:157-62 Wint '86/'87

Title of periodical:
World Affairs, Volume: 149
Pages:157-162
Date: Winter, 1986-87

When you find the title of an article that sounds like it might be important to your work, write down the entire citation. The citation consists of the name and author of the article, the name of the periodical (which will probably be abbreviated - there will be a key in the front of the index to give you the full title - this is what you write down), the volume number, page numbers and date (month, day if given and year).

West Polit Q - The Western Political Quarterly
World Aff - World Affairs (Washington, D.C.)
World Dev - World Development
World Marx Rev - World Marxist Review

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FINDING THE PERIODICAL

The Kardex file, located directly in front of the Reference Desk, lists, alphabetically by title, all periodicals to which the UGL subscribes. Each card includes information on, among other things, how far back our subscription goes (in the upper left corner), and the status of recent issues (bound or unbound). All bound volumes are shelved in the rear of the main floor of the UGL, arranged alphabetically by title of the periodical. Recent issues which have not yet been bound are on reserve on the 3rd floor. Ask for them by title and date at the Reserve Desk.

Use MIRLYN, the UM computerized catalog, to find which library on campus owns the journal you need. For example, type:

t=world affairs

The system responds with a **guide screen**:

```
MIRLYN SEARCH REQUEST; T=WORLD AFFAIRS
AUTHOR/TITLE GUIDE -- 38 ENTRIES FOUND
  1  WORLD AFFAIRS <LOND
  2  WORLD AFFAIRS <WASH
  4  WORLD AFFAIRS AND TH
 26  WORLD AFFAIRS DIGEST
```

Type **1** and the first 18 titles (the number 1 screen can hold) will be displayed on an **index screen**:

```
MIRLYN SEARCH REQUEST; T=WORLD AFFAIRS
AUTHOR/TITLE INDEX -- 38 ENTRIES FOUND, 1 - 18 DISPLAYED
  1  UL:WORLD AFFAIRS <LOND
  2  UL:WORLD AFFAIRS <WASH
  3  UL:WORLD AFFAIRS <WASH
  4  UL:WORLD AFFAIRS AND THE COLLEGE CURRICULUM *SWIFT RIC<1959
```

Type the number on the left to display information about a title. For the example given on the other side, enter **2** (number 1 is published in London). You will see an entry with catalog information and location:

```
LOCATION; GRADUATE LIBRARY
CALL NUMBER; JX1901 .W93
LIBRARY HAS:
  95-99, 105- (Library holdings begin with volume 95, 1932. Volumes 100 to 104 are not
  1932-      available The dash means we currently receive it.)
CURRENT ISSUES IN SSR (SSR is the serials room on the 2nd floor of the Grad Lib)
```

Many magazine/journal records do not have locations on the first screen but say:
CONTINUED ON NEXT SCREEN; press ENTER

If several libraries own a title, you may see this prompt:
FOR ANOTHER COPY AT THIS OR ANOTHER LOCATION, press ENTER

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HOW TO FIND BOOKS AT THE UNDERGRADUATE LIBRARY

FINDING THE CALL NUMBER

1. Decide on how you want to look for the book - by author, title or subject.
 - a. Author - get the full name.
 - b. Title - get the correct title, including any available subtitle.
 - c. Subject - get the correct subject heading from the *Library of Congress Subject Headings*. These large red books are tables by the MIRLYN terminals. Ask at the reference desk for help if you have not used these books before.
2. Look up your entry in the MIRLYN catalog first, then the card catalog if you do not find it in MIRLYN. Authors, titles and subjects are filed together in one alphabet in the card catalog.
 - a. If you find what you want, write down the call number from the screen or the upper-left corner of the card. Some MIRLYN workstations have printers.
 - b. If you **cannot** find what you want, ask at the reference desk for help. You may also want to go directly to the Graduate Library next door. Since their card catalog, on the second floor, contains cards for most of the books in other libraries on campus up to mid-1988, you might find what you want there. The staff at the Information Desk will help you further.

FINDING THE BOOK

3. Using the signs on the top of the catalogs in the Undergraduate Library, determine which floor contains your book. Books marked "Reference" are on the first floor and books marked "Reserve" are on the third floor at the University Library Reserve Service Desk.
4. If you get to the correct place and the book is not on the shelf, decide if it is worth a little more hunting. If it is, try some of the following steps.
 - a. Ask a reference librarian to help you use the Geac to find out if the book has been borrowed by someone else. If so, you might still get it back in time to be of use to you.
 - b. Ask the circulation staff to help you by searching for the book if it is listed on Geac as an Undergraduate Library book that is IN LIBRARY. They will then try to find it and hold it for you within about 48 hours of your request.
5. If you still cannot find or get what you want, see a reference staff member. It might be possible to find a substitute for you.

WHERE ARE THE BOOKS? a UGL location chart

Look at the call number for your book. (Remember that magazines and journals do not need a call number in the UGL as they are, for the most part, arranged alphabetically by title on the first floor.) Take the first letter and go to the floor indicated by the chart below. Also included is a brief notation as to the subject area most often covered by the Library of Congress's subject classification system for each letter.

<u>CALL NUMBER</u>	<u>LOCATION</u>	<u>GENERAL LC SUBJECT AREA</u>
A	Second floor	General works
B		Psychology, philosophy, religion
C	Basement	Biography
D		History, area studies
E		U.S. history
F		Popular culture
G		Geography, folk-lore
H		Social sciences
J	Second floor	Political science
K		Law
L		Education
M		Music
N	Art, architecture	
P	First floor	Literature, language, communications
Q	Second floor	Sciences
R		Medicine
S		Agriculture
T		Photography, Technology
U		Military Science
V		Naval Science
Z		Bibliographies
999	Main floor lobby	PRONTO collection

I, O, W, X, Y not used