This article outlines an Educational Resources Information Center (ERIC) CD-ROM bibliographic instruction (BI) session at an academic library, which is intended to produce knowledgeable and competent ERIC searchers. The 1.5 hour lecture session includes: a basic introduction to the ERIC database; narrowing down a search topic; using the thesaurus and keyboard function keys; and formulating a search strategy, including Boolean logic and Venn diagrams. The lesson plan outline, search strategy form, and strategies for teaching students how to access ERIC are provided. Techniques and strategies things which have proven to be unsuccessful in previous BI sessions are discussed, including searching without development of a strategy, searching free-text, and walk-in BI clients. Commentary on what works in a BI session includes formal sessions, strategy development prior to searching, and use of the library's search form and ERIC thesaurus. An appendix contains the "ERIC Bibliographic Instruction Outline." (MAS)
TIME-TESTED ERIC BIBLIOGRAPHIC INSTRUCTION (BI):
GIVE THEM A POLE AND TEACH THEM TO FISH (FICHE)

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This article discusses an ERIC Bibliographic Instruction (BI) session. This BI has the goal of producing knowledgeable and competent ERIC searchers. The hour-and-on-half session provides the students with a basic introduction to strategy building and techniques necessary to become independent ERIC users. Included are the lesson plan outline, the search strategy form, strategies for teaching students how to access ERIC, and what works and what doesn’t work.
Remember the ancient Chinese proverb that goes something like this? "It is better to give a hungry man a fishing pole and teach him to fish so he can eat for life, than to give him a fish so he can eat for a day". This philosophy can be applied to ERIC Bibliographic Instruction. I believe this the best reason to teach ERIC Bibliographic Instruction (BI).

The students most likely to be in an ERIC BI are Education majors or in a related field such as Social Work or Psychology, Thus they will not need ERIC once of even twice in the course of their college days; they will learn ERIC and continue to use this premier index over and over again—as students, and later on in their field as practitioners. I know that if I do a search for them, they will not learn to do it themselves. I know that if I teach them to plot out a search strategy, find the appropriate thesaurus descriptors, and conquer the mechanics of the CD-ROM, then more independent users will result. In the end, the best test of success is how well the students achieve results.
Background

At this small to medium-sized university library we offer only upper-division classes and graduate programs. The students are a mature group who commute to campus. There is no on-campus housing. These are predominantly working adults who are paying their own tuition bills (as well as the mortgage, utilities, groceries, child care, etc.) These students want excellent service for their dollars. They are receptive, willing and eager to learn. The ERIC BI must be direct, to-the-point, substantial and practical for them. The last thing these students can afford to do is waste their time. The professors make room on their syllabus for the one and one-half hour BI session so students can come as a class. Classes are anywhere from 15-30 strong. The bulk of the BI’s are offered at 4:30 pm, 6 pm and 7:30 pm-- when most of the classes meet. This is when most of our classes are offered. Because none of our students live on-campus, this is the most expedient way to reach them for these BI’s is during class time.

Format

The introduction of the BI should be a lecture format lasting a brief time. This provides general information about the University Library services and hours and
librarians. As their liaison to the university, I encourage them to contact me for assistance anytime during the duration of their coursework here at the university. A BI actually serves as an excellent avenue for building a relationship between the librarian and the students. After the BI, they know a familiar, friendly face in the library to whom they can direct their questions. Building rapport with students is one of the benefits of a BI.

I next start with some background of the Educational Resources Information Center of the US Department and its structure. The 26 years of educational research contained in ERIC is emphasized. Covering 1966 to the present it holds a wealth of information. I do not spend too much time talking "at" them. I do want to build rapport, but not sacrifice the "hands on" time that I am allotted.

Thirdly, I ask for volunteers in class to generate a topic to be used in our sample search. Each class has a different focus-- they always have a unique idea to research. This is when we use the CD-ROM search form which is shown below. The search topic must go on the top line.

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INSERT SEARCH FORM HERE

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SEARCH STRATEGY FORM

SCOPE
Summarize your search topic:


MAIN CONCEPTS
Circle the main concepts in the above statement.

SEARCH STRATEGY
Using the Thesaurus, list all possible terms which describe your main concepts. New terms may not be found in the theaurus, but may be included in your list.

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<th>First Concept</th>
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<th>Third Concept</th>
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For the first SEARCH STATEMENT, combine all of the terms listed under FIRST CONCEPT. Link each of the terms by using “or”, e.g., _____ or _____ or ____. Follow the same pattern for the SECOND STATEMENT/SECOND CONCEPT and the THIRD STATEMENT/THIRD CONCEPT.

The computer assigns a set number to each search statement. Combine the appropriate set number by means of an “and” statement to produce relevant citations.

Boolean logic or the Venn diagram represents this process as:

"OR" STATEMENT: ALL TERMS DEFINE/DESCRIBE THE CONCEPT

"AND" STATEMENT: COMBINES THE CONCEPTS TO PRODUCE CITATIONS ON THE TOPIC
There is nothing that congeals thoughts better than being forced to put it on paper. This top line forces the student/searcher to choose a topic. If the student does not have the topic focused, the search strategy will not be focused either. Circling the main concepts in the search topic further helps to focus the strategy. Once in awhile a topic has two obvious concepts. Then the third concept is "understood" as a grade level ie. middle school or higher education. For example, with the topic

Correlation of mathematics anxiety and sex of Junior High Students.

there are three obvious concepts to circle and work into the three columns on the worksheet.

To take the students to the next step, bring out copies of the Thesaurus. Then explain to them how the thesaurus is structured and how to use these descriptors or subject headings in a search. I stress how important the thesaurus is in a search. Because of the nature of the ERIC database and its voluminous contents, subject searching is a priority. And the thesaurus is the key to unlocking the most relevant information in ERIC.

Together during the BI, the class and I formulate a search strategy. They look at the thesauri and choose what they consider appropriate descriptors to search. These are done concept by concept. Choosing descriptors for the first
concept, second concept, etc. and filling in the columns on the worksheet. Descriptors can be written on an overhead screen or a blackboard during the BI to coordinate what students are suggesting: adding terms as the class looks them up and chooses them from the thesaurus.

A lively discussion can and does ensue when the students and/or I disagree about the relevance of certain subject headings and why this related term should be used and not that narrow term, etc. The search strategy then evolves as a group effort.

Most importantly the Boolean logic and the Venn Diagram are incorporated into the instruction. Students need to learn how to start with a broad topic and then refine it exactly to the parameters of their individual research topic. This is explained and students can visualize the idea using the diagram at the bottom of the search form. In other words, this serves as a guide and reminder for their future searches for how to narrow your search to include only the exact components that you want.

The function keys such as F2, F4, and F6 for functions FIND, SHOW, and PRINT are explained during the demonstration. Using the search strategy formulated by the class in the BI, the search is executed. It is, therefore, a different search every time I conduct a BI. And this has its benefits for two reasons. First, I am never quite sure what will come up and this helps me explain the search "freshly" each time. (It's not a canned search.)
Secondly, each topic is of particular interest to that class and it applies to their assignment at hand. This is far more apt to stick in the student’s memory for later use. After all, it may be one or two weeks before she/he comes in to try an individual ERIC search on her/his own. If I do a straight lecture format with no visual display of the search, and tell them abstractly that this is what will happen, the students probably will not remember as much. Use of a LCD monitor is effective to demonstrate a search to a classroom. If you have a classroom set up for searching, that is wonderful. Others may have to conduct the demonstration out in the public area where the ERIC CD-ROM is; or wheel the CD-ROM into a class for the BI. Whatever the demonstration situation, the better they remember my BI, the more knowledgeable a searcher they will become. And this is, after all, the main objective.

What Doesn’t Work...

Having conducted many ERIC BI’s, I have compiled some techniques and strategies have become tried and true. I have compiled others that I have found to be ineffective. I never let students sit down cold at ERIC and attempt a search without a search strategy already formulated. I encourage them to avoid searching terms free-text. ERIC is such a massive database, that a free-text search brings up too many off-target hits. Quick and dirty searching in
such a comprehensive index is just not effective.

We keep walk-ins to a minimum because our ERIC is so busy we find it best to give our students appointments to use it. This is mentioned in the BI. Of course, community and non-students clients will still walk-in. They are not aware of how busy the CD-ROM is. Then instead of waiting we may need to offer them an appointment also. Many of our students commute a long distance to campus and it gets discouraging to not have access to the ERIC. We keep an appointment sheet at the Reference desk and students are allowed to block out an hour-and-one-half slot for the search. A librarian is then available to help if needed. They can call for an appointment or sign up after class.

What Works...

A formal BI session is the best way to teach 25-30 people the necessary tools they need to become successful ERIC searchers. I stress doing the strategy first to insure a logical, well-thought out search. Relevant citations and a productive search will result. It is best to use the CD-ROM search form and put the topic statement in writing on this form. This forces the student to clearly define what he/she needs to research. Then the student needs to find the three main concepts with the topic statement, and find the appropriate descriptors in the thesaurus. Then they have the basis of their search.
strategy. As they use the thesaurus more often, the students will learn how the descriptors interrelate. The more the students search ERIC and use the thesaurus, the easier it will become for them.

Conclusion

As the Chinese proverb teaches us; it is better to spend the time teaching the student to search ERIC independently, than have to feed him (do a search for) every time he needs educational research. And if we are truly serving life-long learners, let’s make students as knowledgeable about the electronic library as we can. The librarian will be nearby to act as a consultant, but after an ERIC BI, the students learn best by doing it themselves.

In the final analysis, these are invaluable searching skills that our students are mastering. Whether ERIC is on a CD-ROM in your library or online through DIALOG or available through other means (such as ILLINET ONLINE IBIS in Illinois), these are transferrable skills. Searching PsycLit, MLA and other CD’s are that much easier for the students who have been in the ERIC BI. The ERIC BI teaches them the strategizing and searching are skills that will transfer to other computerized indexes in the electronic libraries these students are using.
In our increasingly technological libraries, our incoming students need the BI as the avenue to keep them abreast of what's new in the library. And we who work in libraries today know that everyday there seems to be something new! The goal of creating knowledgeable ERIC searchers is achieved through active learning within the framework of the Bibliographic Instruction.
ERIC BIBLIOGRAPHIC INSTRUCTION OUTLINE

I. INTRODUCTION
   A. General information about the University Library and Education/Materials Center Library or EMCL.
   B. Specific names of the Librarians on our staff, their phone numbers and work schedules—-we are their "Education Specialists".

II. ERIC
   A. What ERIC stands for = Educational Resources Information Center of the U. S. Department of Education.
   B. Its importance ie. The premiere index covering educational literature for the past 26 years. (1966- ).
   C. Encompasses both RIE + CIJE
      1. RIE is Resources in Education for the microfiche collection= the ED references
      2. CIJE is Cumulative Index to Journals in Education for the journal citations which are the EJ references.
   D. ERIC provides users with over 700,000 citations and abstracts, which are journal articles, Masters papers, research articles, dissertations, government documents, etc.

III. ACCESSING ERIC
   A. Subject searching using THESAURUS terms
   B. Designing Search Strategy
      1. put your ideas into ERIC terms
      2. use Venn Diagram to identify the three concepts in your topic
      3. employ Boolean logic to strategize using operators "and", "not", "or".

IV. SMALL GROUPS IN THE BI
   A. Form small groups to share Thesauri and tackle sample research topic.
   B. Using worksheet each group chooses terms and forms strategy by identifying the three concepts within.
   C. Know thesaurus abbreviations UF, NT, BT, RT and grade level descriptors