Purpose

When you have a research question, it is helpful to see what others may have written on that topic before you.

One way to go about that is to go to the library, find a scientific journal in your area, and look for articles relating to your topic. You would then read the articles and check their reference sections. The reference section lists all previous articles that the authors of the article you are looking at have cited. You can then use the references to look up the older articles in the library, read their reference sections, and so forth.

Electronic databases allow us to find articles, chapters, and books of interest much faster. Psychologists and neuroscientists in this country use PsycINFO®. Universities and libraries pays the creators of PsycINFO for access to the database. Their part of the bargain is to keep the database updated with everything that has been published in the area of psychology in the English language. (PsycINFO also includes references to some of the most prestigious journals from other countries that may or may not be in English.)

The goal of this tutorial is to give you the basics on how to search PsycINFO for references to articles you may want to read in preparation for your proposal. The principles used in PsycINFO searches apply to other academic databases (e.g., MEDLINE®, which is a database for medical research). This tutorial will introduce you briefly to the basics of how to:

- Search by keywords
- Search by year
- Search by an author’s name
- Combine searches
- Select references for review

Accessing PsycINFO

Go to http://www.emory.edu/libraries.cfm your University or College probably has a similar web site
Click on “Databases”
Or go directly to http://web.library.emory.edu/databases/

You should be able to see the huge list of electronic databases that Emory University subscribes to. If you click on “M,” you can access the medical research database Medline or a database that contains reviews of various psychological tests and measures called the Mental Measurements Yearbook; if you click on “L,” you can access the legal documents database LexisNexis that contains references of interest to lawyers and political scientists. Clicking on “W” will take you to the link for Web of Science, which is a database often used by natural scientists. We will be clicking on “P” and looking at PsycINFO (1806-present).

(If you are trying to access PsycINFO from off-campus, the library web site will first ask you for your network login and password.)

After clicking on “PsycINFO,” examine the screen. (Emory University uses the OVID® interface, but your PsycINFO screen may look somewhat differently, depending on the kind of subscription your school has.) Note the box labeled “Search History.” This is where your searches will be saved. After you conduct a search, you can click on it in the history box to view the results.
(After you conduct several searches, the box will only show the last four or so. At that point, you will see a red button labeled “Expand” that will allow you to look at your previous searches.)

Now find the checkbox called “Map Term to Subject Heading.” **Uncheck** this box, so that you can do searches for keywords. If you leave it checked, PsycINFO will take your keywords and match them against its own keywords it uses to keep track of references (called subject headings). This tutorial does not cover subject headings, but you can experiment by searching with the box checked. In my experience, I have seldom needed subject headings (except in very rare cases).

Let’s say that we are interested in studies that used fMRI to examine patients who had either major depression or bipolar disorder. Let’s say that, for whatever theoretical reason, we are interested in fMRI that examined samples of patients with both of these disorders (for example, to compare depression to bipolar).

First, type the keywords “depression” in the search window. (Remember to uncheck “Map Term to Subject Heading”.)

![PsycINFO search interface](image)

Then click on “Search.”

The next page shows what the screen should look like after the completion of a successful search. PsycINFO found 111365 articles, book chapters, books, or handbooks on depression.

(You may click “Display” to view the results. We will talk about these a bit later.)
If you examine the results by clicking “Display” and browsing through the references, you will realize that the search produced a lot of references that may not have to do with “major depression.” Let’s now force PsycINFO to search only for references that contain the phrase “major depression” (notice the quotation marks).
On the previous page, you can see that searching for a narrower term halved the number of references. This was your first step toward focusing your search. Yet, who can read 50399 references? This is a huge number, and we will narrow it further. But before we do that, we have to realize that some authors may not have used “major depression” in the title or abstract of their publication. Perhaps they used the term “major depressive illness” or something like that. We don’t want to miss those references.

Use the $ sign to tell PsycINFO to search for anything that has “major depress…” in it. This should produce a greater number of references:

<table>
<thead>
<tr>
<th>#</th>
<th>Search History</th>
<th>Results</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>depression.mp. [mp=title, abstract, heading word, table of contents, key concepts]</td>
<td>111365</td>
<td>DISPLAY</td>
</tr>
<tr>
<td>2</td>
<td>&quot;major depression&quot;.mp. [mp=title, abstract, heading word, table of contents, key concepts]</td>
<td>50399</td>
<td>DISPLAY</td>
</tr>
<tr>
<td>3</td>
<td>&quot;major depress$&quot;.mp. [mp=title, abstract, heading word, table of contents, key concepts]</td>
<td>51999</td>
<td>DISPLAY</td>
</tr>
</tbody>
</table>

We can now tell PsycINFO to include only the studies that talked about major depression and either bipolar or manic-depression at the same time.

Type: 3 and (“bipolar” or “manic-depress$”) – see the next page.

This will combine search 3 with the new terms. In other words, it will look at the intersection between “major depress$”, on one hand, and (“bipolar” or “manic-depress$”), on the other.

Notice the clever use of “and,” “or,” and the parentheses to construct the search term.

(You could also click on “Combine Searches” or on the small briefcase icon called “Search Tools” to find other ways to combine and manipulate searches.)

Notice that this search (page 4) produced a significantly smaller number of studies, because most studies out there talk either about depression or about bipolar, whereas fewer studies talk about both disorders at the same time. Still, we have an overwhelming amount of references to look at – 3633 (see the next page). We want to continue focusing the search.
So the goal is to limit this search to what we are looking for, which is empirical (original) studies in peer-review journals in English.

(Peer-review journals are journals with a strict editorial process. Before articles can get approved for publication in such a journal, the editor sends them to experts on the topic. If the experts find that something in the study’s scientific method is lacking or remains unclear, then the editor writes back to the author of the article to either reject the paper or to request additional explanations. Peer review is an essential part of the internal self-correcting mechanisms that distinguish science from most other ways of obtaining knowledge.)

Look under “Limits” and examine the various ways you have to limit your searches. By default, your last search has been selected, but you can change that (note the radio button in front of “4”). Let’s leave it the way it is now.

Following the example on the next page, check the “Peer review,” “Human,” and “English Language” checkboxes. This will restrict search 4 to these categories.
You can also click on “More Limits” (the bull’s eye icon with the arrow). Examine the different options you have to further restrict searches. Below are some of them. For example, you can select studies from different areas within psychology, studies done with different populations of participants, and so forth.

In the Methodology box, click on 0400 Empirical Study. This will limit the search to studies that published original data (as opposed to reviews of previously published literature, book chapters, and so forth. (You can hold “Control” and select more than one item from a list, but let’s not do that now.)
Perform the search and examine the results. The number of references has shrunk to 2139.

No, combine search 5 (using “and”, “or”, and parentheses) with search terms that would limit the pool of references to just studies that used functional neuroimaging methods – fMRI, PET, or SPECT scans. This should produce a significantly smaller number of studies.

Two things should be obvious. First, it is now much easier for you to locate the studies you were looking for. Second, it looks like not that many authors have examined major depression and bipolar disorder using functional neuroimaging in the same study.

How would you do the search differently to locate studies that used neuroimaging to look at depression or bipolar (without requiring the two keywords to be present at the same time)?

Now, click on “Display” to the right of your last search (7).
You can now browse the reference records for the search. Each reference record has a checkbox on the left side. You can select the references you are interested in for further review.

You can click on the “Next Result” and “Previous Result” arrows toward the bottom of the list to move back and forth if the list is longer than one screen. PsycINFO will remember what references you selected from the previous pages.
After you selected the references of interest, check out the Results Manager on the bottom of the screen (see the previous page). Tell PsycINFO (by clicking on the radio buttons) that you want to see all Selected Results and that you want a Citation + Abstract. These should be the default options.

Use the buttons on the lowest right to either Display, Print, Email, or Save the selected references. For example, click on Display. You should see a list that shows the references with their abstracts. (Abstracts are blurbs authors write to give you an idea what their study was about. An abstract can suggest to you whether or not you would want to read the actual study. Never cite a study just based on having read just its abstract!)

Now look toward the top right of the page. Find the little house icon that says “Main Search Page” and click on it. Notice how PsycINFO has created a new search (8), conveniently saving for you the references you checked previously. You can revisit some of your previous searches by clicking on “Expand” and “Display” to read them, print them, save them on a disk, or email them to yourself.

There are just a couple more trick I’d like you to try:
One of the depression neuroimaging authors was L. Baxter. Let’s say you wanted to check whether or not this was someone who has written a lot about neuropsychology and depression. Or perhaps he is a newbie in this area. Let’s see what else he wrote.

Tell PsycINFO to search for Baxter L$.au
This will force it to look up all L. Baxters, regardless of their exact first name and middle initial. (The Baxter we are interested in is Lewis R. Baxter, whom I have never met, but I am sure he would be please to hear that we are using his name as an example.)

Play with the results from the L.Baxter search to see whether or not you got only references from Lewis R. Baxter or maybe from other people with the same last name and first initial. What did Lewis Baxter publish?

Below is an example of how you could search for L. Baxter’s articles on depression from the 1990’s:
Names: __________________________________________________________________________________

You may work individually or in groups of up to three students. You will choose a topic of interest in the area of psychology and do several searches in PsycINFO. You will record what you did, so that I can repeat the searches and check your results. First, choose a topic of interest in the area of psychology. If you have difficulty choosing a topic, pick one from the list at the bottom of this page.

**Topic:**

Brainstorm for keywords that you may want to include in your first search. Pick the keywords you think would be most useful and write down your first search expression:

Access PsycINFO and do a search with the keywords above. How many references did it yield: ________________

What are your observations about the results of the search? Did it provide you with what you were looking for?

Try limiting or expanding the search. Write down what you changed and the number of results you got:

Now limit your search just to empirical articles from peer-reviewed journals in English from a time period of your choosing. What time period did you choose? ________________ How many articles did you find, and how were the results different from what you found earlier?

(Optional: Try searching for the publications of one of the authors you identified. Try clicking on her name.)

What other ideas do you have about improving the search?

Now, try to access an online copy of one of the articles you found with your search. Print the first page of the article and turn it in with your worksheet.

**If you have trouble picking a topic of your own interest, you may choose one of the topics below:**

- Alcohol consumption in college freshmen
- Psychotherapy for obsessive-compulsive disorder
- Stereotype threat in mathematics performance
- Discrimination and sexual orientation
- Biological sex and spatial cognition
- Sexual behavior of bonobos
- Group therapy for social anxiety
- Personality and job performance
- Collectivism & the ultimate attribution error
- Emotion-focused therapy
- Are flashbulb memories real?
- Rebound of suppressed memory
- Amotivational syndrome in marijuana users