**Assignment 2:**  
*Choose and describe a specific “slice” of the mental action that you want to study*

This assignment is the second step in developing your research problem.

**Hand in:**

- An individual 1-page description of one “slice” of your mental action, with references.  
  Focus on which factors make the “slice” change.

**Steps:**

- Read this whole Package so you know what to do
- Choose a “slice” of your mental action to study
- Form a group for each “slice”
- Fill out your Search plan worksheet together in your group – for that “slice”
- Divide up the bibliographical research among the group
- Share in the group your notes about what information you found
- Write your individual descriptions
- Share your descriptions for feedback
- Hand in your revised, individual description
**Choose a specific “slice” of your mental action**

A mental action (or cognitive process) is much too broad as a research problem for an experiment. To make your research problem more precise, you need to select only one “slice” or part of your mental action to study at a time.

When you described your mental action, you listed the steps, parts, or “slices” that are components of that action.

Choose only one “slice” to focus on for your experiment.

Write it here: ____________________

**Now, find the other people in the class who want to study the same slice or a similar one.**  
**Work together on the next assignment.**

**Describe what researchers know about your “slice”**

Another important part of your Lit Review describes the “slice” of your mental action that you want to focus on in your experiment.

Write that part now, following the instructions below.

Before you write, you have to read. Before you read, you have to find published research.

**Plan first to find publications more easily**

Planning saves you time and headaches. There are two parts to planning your search for publications:

a) You need to know what information to look for. This will be different for each section of your Lit Review;

b) You need to know where to find useful information;

**What information to look for**

<table>
<thead>
<tr>
<th><strong>Section Summary</strong></th>
<th><strong>General background, part 2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>≈1 page for draft</td>
</tr>
<tr>
<td></td>
<td>≈1/2 page for final version</td>
</tr>
<tr>
<td>Section title</td>
<td>&lt;your slice of the mental action&gt;</td>
</tr>
<tr>
<td>Main question to answer</td>
<td>How does your particular “slice” work?</td>
</tr>
<tr>
<td></td>
<td>Which kinds of factors affect how it works?</td>
</tr>
<tr>
<td>Reading strategy</td>
<td>Look in Lit Reviews of experimental articles that are about your “slice”</td>
</tr>
</tbody>
</table>

Goals. Your main goal in this section is to prepare the reader to understand your research problem. Not everyone knows a lot about the specific “slice” that you want to focus on. If your research problem is precise, few people (even other researchers) know much about it, so you have to educate your readers. The most direct way is to describe simply how your “slice” works in general.
**Reading Strategy.** Look in research journals for studies about your “slice”. Start with the references in the review articles that you found from *Annual Review of Psychology* or elsewhere. Focus on only the lit review or introduction from each article.

**Organization and what to talk about.** This section should focus only on how your specific “slice” works. Focus on talking about the facts, not the authors or the studies. Using the author-inside citation style will help.

The easiest way to organize this part of the General Background is to give further details about the “slice” that you will focus on. You can describe your process by answering questions like: What is known about it? What factors make it faster, slower, more error prone, etc.?

For example, if your “slice” was “word recognition”, you would have an initial sentence about word recognition (citing leading researchers) saying general things (i.e., about how it works in general). Then, you would have separate sentences for factors like word frequency, word length, word type, sentence context, gender, etc. These are all things that make word recognition happen differently.

In each sentence, you will cite important findings so the reader can get an idea of how each factor affects your “slice” and how they interact.

Simple example from a student paper follows. It’s not long enough, but it gives you an idea.

**Sample #1**

Lexical choice is necessary for language production to occur. This is the decision to use a specific word that is chosen during grammatical encoding (Bock, 1996; Alario, Chainay, Lehericy & Cohen, 2006). Lexical choice depends on the initial message, the sentence template, and the speaker’s background knowledge (Krekeler, 2006). Acquiring background knowledge provides a speaker with a greater range of vocabulary to choose from when making a lexical choice (Alario, Chainay, Lehericy & Cohen, 2006).
Where to find information for this section of the Lit Review

Remember: You’re NOT supposed to read everything!
Read only the parts that are relevant for what you happen to be writing.

Each section of your Lit Review uses different kinds of information. If you just dive into
Google or PsycINFO and use keywords, you’ll waste a lot of time and effort.

For this specific section, about your “slice”, you can use the same sources that you used for the
section about your mental action in general: Annual Review, theses and dissertations, and other review
articles.

You can go into more detail about your “slice” by finding articles in research journals that are
specifically about your “slice”.

Assignment: Plan your Literature Search, part 2

How

Make a list of 5 (five) research journals that have
empirical articles related to your mental action and the
“slice” of it that you want to focus on.

___________________________________

___________________________________

___________________________________

___________________________________

___________________________________

Make a list of 3 (three) authors who have published more
than one empirical article related to your mental action
and the “slice” of it that you want to focus on.

___________________________________

___________________________________

___________________________________

___________________________________

___________________________________
Search the library’s databases by journal title

The easiest way to find the most relevant journals is by scanning the references in the Annual Review articles, theses, and dissertations that you found before. Sometimes scanning the references in a textbook will help, too.

Journals often focus on a limited number of research problems, so you will usually find many relevant articles in the same journal. So, before you do a keyword search on your research problem, browse relevant journals.

Appendix A shows how to find journals step by step. You can start with the lists of journal titles cited below. The official list of journals that are indexed in PsycINFO is here: [http://www.apa.org/psycinfo/about/covlist.html](http://www.apa.org/psycinfo/about/covlist.html). The list below contains only journals that cover different areas of Cognitive Psychology.

<table>
<thead>
<tr>
<th>Applied cognitive psychology</th>
<th>Journal of experimental psychology. Human perception and performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian journal of educational &amp; developmental psychology</td>
<td>Journal of experimental psychology. Learning, memory, and cognition</td>
</tr>
<tr>
<td>Brain &amp; Cognition</td>
<td>Journal of experimental social psychology</td>
</tr>
<tr>
<td>British journal of educational psychology</td>
<td>Journal of memory and language</td>
</tr>
<tr>
<td>Canadian journal of experimental psychology</td>
<td>Journal of rational-emotive and cognitive-behavior therapy</td>
</tr>
<tr>
<td>Canadian Undergraduate Journal of Cognitive Science</td>
<td>Journal of research in reading</td>
</tr>
<tr>
<td>Cognition</td>
<td>Learning &amp; memory</td>
</tr>
<tr>
<td>Cognition and emotion</td>
<td>Memory</td>
</tr>
<tr>
<td>Cognition and instruction</td>
<td>Memory &amp; cognition</td>
</tr>
<tr>
<td>Cognitive development</td>
<td>Neuropsychology, development, and cognition.</td>
</tr>
<tr>
<td>Cognitive neuropsychology</td>
<td>New England Reading Association journal</td>
</tr>
<tr>
<td>Cognitive psychology</td>
<td>Quarterly journal of experimental psychology</td>
</tr>
<tr>
<td>Cognitive science</td>
<td>Reading</td>
</tr>
<tr>
<td>Cognitive systems research</td>
<td>Reading &amp; writing</td>
</tr>
<tr>
<td>Contemporary educational psychology</td>
<td>Reading &amp; writing quarterly</td>
</tr>
<tr>
<td>Educational psychology</td>
<td>Reading eagle</td>
</tr>
<tr>
<td>Educational psychology in practice</td>
<td>Reading horizons</td>
</tr>
<tr>
<td>Educational psychology review</td>
<td>Reading improvement</td>
</tr>
<tr>
<td>European journal of cognitive psychology</td>
<td>Reading in a foreign language</td>
</tr>
<tr>
<td>Experimental psychology</td>
<td>Reading online</td>
</tr>
<tr>
<td>International journal of cognitive ergonomics</td>
<td>Reading psychology</td>
</tr>
<tr>
<td>Journal of cognition and development</td>
<td>Reading research and instruction</td>
</tr>
<tr>
<td>Journal of cognitive neuroscience</td>
<td>Reading research quarterly</td>
</tr>
<tr>
<td>Journal of college reading and learning</td>
<td>Reading teacher</td>
</tr>
<tr>
<td>Journal of educational psychology</td>
<td>Reading today</td>
</tr>
<tr>
<td>Journal of experimental child psychology</td>
<td>Scientific studies of reading</td>
</tr>
<tr>
<td>Journal of experimental psychology. Animal behavior processes</td>
<td>Trends in cognitive sciences</td>
</tr>
<tr>
<td>Journal of experimental psychology. Applied</td>
<td>Visual cognition</td>
</tr>
<tr>
<td>Journal of experimental psychology. General</td>
<td></td>
</tr>
</tbody>
</table>

Once you have identified good candidate journals by their title, then search **only that journal** for relevant articles, either in person, by using the library’s e-journals list, or by using the advanced search features of PsycINFO. Most library journal subscriptions are in electronic format online. Some earlier years are available only in print. Check the library catalog, though! For each journal, some publication years are available on paper (in the library), some years are only available online, and some years are available in both forms. This varies for each journal title. Not very long ago, there was no internet so researchers went to the library to leaf through the journals by hand. That still works quite well – go to the library to browse through them in person.
Search by author

As soon as you have found your first relevant article, STOP looking with keywords and search PsycINFO by author, using the advanced search option. Appendix B shows how to find authors step by step. Check out the author(s) of the article that you have found and the authors that are in the reference list. Usually, if researchers have published a study that is relevant for your research problem, then they will also have published several other relevant studies. You can also try the authors’ personal web page for a list of publications and sometimes the publications themselves.

Search for related articles

A Basic or Advanced search in PsycINFO will provide you with a list of matching articles. Not all of them will be relevant. When you have found an article in PsycINFO that is relevant – let us call it the “target article” for now – you can look for other articles that are related to it.

The other articles that mention your target article and the other articles that your target article refers to are all good candidates for relevant research. PsycINFO helps you find items related to your target article, in two ways:

- It provides links to the earlier articles that appear in the reference list of your target article – the “cited references”

- It provides links to later articles that mention your target article in their reference lists – the “citing articles”

Figure 2.2. Articles that are related to a target article: Cited references and Citing articles.

Appendix C shows how to find related articles step by step.
Search by keywords

Searching with keywords is probably the way that you are used to doing things, but it is not the most effective way of searching for publications.

Yes, www.google.com/scholar and www.questia.com (among others) can be helpful in identifying articles. However, there are two main reasons to use PsycINFO instead:

a) PsycINFO has more specialized information in one place;

b) You will have to go back to PsycINFO or to the on-line journals to copy the articles themselves, once you have found the references with other search engines.

Remember: you should never have to pay to get a copy of any articles. As a student, you can access them for free through the library’s website or through interlibrary loan.

Search PsycINFO using keywords related to your process, sub-process, factors, and population. If you get desperate, you can look for search terms in the table of contents of a relevant textbook or some other book on the topic.

Keyword search, however, has some serious limitations. That is why it can sometimes be so frustrating. If you use only one or two keywords then you often get many too many hits. The more keywords you use, the fewer hits you get, sometimes none at all. If you have trouble finding articles with the keywords that you are using, use the Thesaurus link under the Advanced Search options. Put your word in the “Browse for” box to check for related search terms.

Start with keywords describing your mental action or process first. You need to be careful not to use words that can mean many different things. Then add in keywords describing your factor(s). If you want to narrow the search further, you can add keywords about the kinds of testing materials that you want to use or the kinds of people that you want to study. You will have to go back and forth between more general and more specific searches, using different combinations of keywords and/or their synonyms.

Also, check for similar studies with other populations and other materials. Check for studies with related factors or independent variables. You want to focus in on the other research that emphasizes the same sub-process and same factors as your problem. Do not look for studies about a different part of the same process that you are studying unless you need some info for your general background section.
Appendix A: How to access journals by title

This is the library’s home page. Click on Articles and Databases in the menu along the left.

This page lets you look for general information by subject area. But we are looking for a specific journal. In this example, we are looking for the Journal of Psycholinguistic Research.

Click on SJSU Electronic Journals Index, again in the menu on the left.

This page gives a list of all of the research (and other) journals that are available in electronic form at the library.

Where it says Search for a particular journal, you will see Title begins with. Type the journal title into the box and then click Search.

You can also click on the first letter of the journal title in the alphabet below Browse Journal Title Lists. However, there are very many journals, so that is often not very practical.
In the bottom half of the window, you will see the title of the journal again along with the different databases where it was found. In this case, there are two databases: SpringerLink Contemporary and Communication & Mass Media Complete.

When you’re looking for a specific article, before you click on one of the database links, make sure that the article’s year of publication is available. In this case, the 2007 journals are only available through SpringerLink.

Click on one of the database links.

If you are accessing the databases from off campus (what a convenience!), then you have to sign in first.

The SJSU ID is just the number of your Tower Card.
If you do not have a PIN number, then make one up, write it down someplace safe, and enter it here.

Put in your data and click \texttt{Submit}.

\textbf{EBSCO Host} is a set of tools that help you access different databases. This page shows all of the years that are available for the Journal of Psycholinguistic Research with this database.

Click on $+$ 2006 to see the articles that were published then.

\textit{Do the same thing for the other years to scan the titles of the articles for research that is related to yours.}
This is the list of articles published during 2006 in one issue of the *Journal of Psycholinguistic Research*.

Find where it says **PDF Full Text** under each article. That means that the whole article is available for viewing and downloading in PDF format.

You should already have *Adobe Acrobat* installed on your machine; if not, get it from [www.adobe.com](http://www.adobe.com).

Click on **PDF Full Text** for the first article.

There you go! This is the whole article. You can read the article on line, save it to your computer, print it out, email it to yourself or to someone else, etc.
Appendix B: How to search by author

Once you are in PsycINFO, click on the Advanced Search tab. This is what you will see.

See Appendix B: Getting started with PsycINFO if you are not sure of how to start.

The boxes below and next to Find: are where you can put keywords or author names to search for them.

The Select a Field (optional) box allows you to look for a keyword in a specific part of each article.

Next to Find:, type in an author name, last name first. Here, it’s “Walter Kintsch” from the University of Colorado, Boulder.

Next to his name, click on the Select a Field (optional) box and choose AU Author. This tells the search engine to check author information for each article.

Click on Search.
This page shows the list of articles by Walter Kintsch that the search engine found.

You can scroll through the list to find the articles that are related to your research problem.

Note the yellow box labeled **Narrow Results by Subject**. You can click on one of the links in this box to see the papers by Walter Kintsch on each of these topics.
Appendix C: How to find related articles

Once you are in PsycINFO, click on the Advanced Search tab. This is what you will see.

Enter your query in Advanced Search
In this example, we're looking for articles by author Walter Kintsch.

View your query results
These are the first results that come up. We scroll down to look for our target article.

View more query results
Say that #10 is the target article that we're interested in.
View the target article’s references

Notice that under the target article you can see a link called **Cited References (35)**.

That means that the target article has 35 earlier items in its reference list.

Click the link to see the items in the reference list.

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View the target article’s references

These are the earlier published items that are cited in the target article’s list of references.

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View articles that cite the target

Notice that under the target article you can also see a link called **Times Cited in this Database (9)**.

That means that the target article appears in the reference lists of 9 other, more recent articles.

Click the link to see the articles that cite the target article.