UNIV 110 TW: Scholarly Inquiry and Research Methods
(Class Two)

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Review of Class One

- Today’s world of information
- Information literacy defined
- The nature of scholarly research
- Types of information sources
- Picking your research topic
Assignment #1

- Reference materials: Sources for answers to a specific question; indicate other sources for further research. Examples: dictionaries, encyclopedias, directories, thesauri, handbooks.
- Reference collection in the library is non-circulating due to high use. But we do have a lot of reference materials available online now.
- Oxford Reference Online

*Resubmissions before the deadline are welcomed.*
Class Two

Learning Objectives:

- Development of research questions
- Development of preliminary outlines as research blueprints
- Scholarly vs. Popular Sources
- Close reading of a research article
- Literature review
What is research?
<table>
<thead>
<tr>
<th>Research is NOT...</th>
<th>Research IS...</th>
</tr>
</thead>
<tbody>
<tr>
<td>A compilation exercise of existing data</td>
<td>Getting working knowledge of your topic</td>
</tr>
<tr>
<td>A board survey of a topic</td>
<td>Narrow in focus (have defined problem/issue to address)</td>
</tr>
<tr>
<td>Something you just look up</td>
<td>Doing your own analysis (based on info survey)</td>
</tr>
<tr>
<td>Just reading about a topic and reporting</td>
<td>Defining one problem, challenge, or controversy; an opportunity to address issue or problem</td>
</tr>
<tr>
<td>Obvious (e.g. ‘Is the flavour of salt salty?’)</td>
<td>Researchable (e.g. ‘What makes salt salty?’)</td>
</tr>
<tr>
<td>Rehashing a story that’s already been told</td>
<td>Something new</td>
</tr>
<tr>
<td>Impossible to answer</td>
<td>Answerable/workable</td>
</tr>
<tr>
<td>Confusing or unclear with multiple interpretations</td>
<td>A single clear question stating the goal of your research</td>
</tr>
</tbody>
</table>
Scholarly Research

Research is NOT compiling existing information.

Research gathers and uses the existing information to answer a question or solve a problem.

“Research is about a profound discontent, about a quest to discover more, about a desire to solve society’s problems and make a better world.” -- Bill Badke
A model for the process of informational research

Review the first part of this tutorial for the model of research process.

Also refer to the video tutorial Informational Research by Duncan Dixon.
Picking a Research Topic

Not a one-way, linear process; a cyclical process

Picking the research topic IS research

- The initial topic is not set in the stone; it’s just an idea
- Test the topic with some exploratory research
- Tweak the topic while finding and reading sources
- Go through this cycle a few times till you have a topic that you can find relevant sources to write about

(Adapted from the video tutorial by NCSU Libraries)
The Research Question

- It identifies the research problem (a single issue)
- It gives a direction to solve the problem
Developing a Research Question

Your goal is to develop a valid and workable research question from a topic. So given your research topic, you want something that...

- is researchable
- is not obvious
- is narrow in focus (be specific)
- has some chance of leading to a definite conclusion

Refer to the Sheffield Hallam University's guide
Some examples of research questions

Ask yourself:

- Could I answer my question just by looking it up?
- Is the answer to my question something that is obvious or already known?

For example,

How well has Canadian trade done since the Canada-United States Free Trade Agreement was signed?

You can simply look up the information from the government website. So what are some ways you can revise this research question?

Refer to Research Questions - The Good and the not so Good Prezi Presentation by Bill Badke
Some questions are very broadly based.

For example:
Are food additives good or bad for you?

(this is too broad; it requires you to cover all food additives)

So how you would you revise it?
Some examples of research questions

Do not target more than one problem or issue in your research question.

For example,

*What is the best way to get rid of all illegal guns and stop our young people from getting killed in gun violence and keep our communities safe?*

This question leads to multiple projects and kills your focus.

*So how you would you revise it?*
Some examples of research questions

Do not be vague and open-ended, as if the researcher has no clear idea of what he or she is seeking.

For example,

- What were the results of World War One?
- If we legalized all drugs what would that mean for society?
Some more examples

Review the second part of this tutorial for some research question examples.
The Research Process

1. Brainstorm a research topic.
2. Get a working knowledge of your topic.
3. Narrow your focus by finding a problem or issue to address.
4. Formulate a single, clear question that states the goal of your quest.

......

From Bill Badke's Creating Research Questions prezi presentation
A thesis statement is a proposed answer to a research question.

- It’s not a conclusion but a proposal.

- Bill Badke in his textbook

This tutorial developed by Queens University explains how to develop a good thesis statement
Creating Preliminary Outlines for Research Questions

A good outline for the research paper is important because:

- An outline helps you organize multiple ideas about a topic.
- It shows you clearly what your next step is.
- It will help you stay organized and focused in the writing process.
- The outline can be key to staying motivated.
- Serve as a schedule for your writing progress.

(Adapted from the University of Southern California Libraries page).
A common outline example

- Introduction
  - Background
  - Literature review
- Body
  - Research methods
  - Discussions / Arguments
- Conclusion
Creating Preliminary Outlines for Research Questions

Starting from the research question, think about what parts or aspects you can extract from the question and brainstorm possible answers to the question.

Q: How might organizations deal with the lack of supply of labor in the developed world?

See examples in this Prezi presentation by Bill Badke for your self-study.
Creating Preliminary Outlines for Research Questions

Q: How might organizations deal with the lack of supply of labor in the developed world?

An example outline could be:

- **Introduction** (brief comment leading into the subject matter)
- **Body**
  - The aging workforce in developed countries
  - Possible strategies to cope with the lack of labor supply
    - technology innovations (e.g. AI...)
    - industry restructuring
    - immigration policies
- **Conclusion**
Creating Preliminary Outlines for Research Questions

Q: In examining the causes of WWI, how could this war have been avoided?

An example outline could be:

- **Introduction** (background of WWI)
- **Body**
  - Suggested causes of WWI
    - ...
    - ...
  - How the war could have been avoided
- **Conclusion**
Research Sources

So now I have my research question, *where do I start?*

- Google? Google Scholar?
- Wikipedia?
- Library databases?
Why not Google

- It does not provide full text for most books and journal articles you find.
- A lot of the results are not scholarly. The search engine isn’t efficient in finding scholarly sources.

This prezi presentation by Bill Badke talks about Google and academic research.

What about Google Scholar?

- The sources might contain conference presentations, posters, and so on.
- Useful for finding open access sources.
- When off campus, access it from the Library Homepage.
Google vs. Library databases

Should I be using Google or the Library resources for a paper? Video by Ronald Williams Library, Northeastern Illinois University
Scholarly vs Popular Sources
Scholarly? Popular?
Scholarly? Popular?
<table>
<thead>
<tr>
<th></th>
<th>Scholarly Sources</th>
<th>Popular Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorship</strong></td>
<td>Experts</td>
<td>Professional writers</td>
</tr>
<tr>
<td><strong>Target audience</strong></td>
<td>Experts</td>
<td>General public</td>
</tr>
</tbody>
</table>
| **Content**          | ● investigate a specific issue or topic in a certain field; formal in tone  
                       | ● cite all sources used                                              | ● inform a wide range of audience about issues of interest; much more informal in tone  
                       | ● are usually peer reviewed                                        | ● do not provide citations for sources used                        
<pre><code>                   |                                                                      | ● are not peer reviewed                                           |
</code></pre>
<p>| <strong>Availability</strong>     | Usually via library or research institute’s subscriptions (there are open access academic journals too) | Are usually available in drugstores, supermarkets or via individual subscriptions |
| <strong>Graphic design</strong>   | Scholarly journals usually have plain covers and few advertisement inside | Popular magazines have glossy covers with many advertisements inside |</p>
<table>
<thead>
<tr>
<th></th>
<th>Scholarly journals</th>
<th>Grey literature</th>
<th>Popular magazines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authors</strong></td>
<td>Academics and scholars in the field</td>
<td>Think tanks, academic scholars, industry experts, professionals, or practitioners</td>
<td>Professional writers, not necessarily experts</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Facilitate scholarly communication between members of a particular academic discipline and/or the public</td>
<td>Provides specific information about the government, certain companies or industries to the general public, members of a particular industry or profession</td>
<td>Provide general information and entertainment to a broad audience</td>
</tr>
<tr>
<td><strong>Intended audience</strong></td>
<td>Other scholars or researchers in the field</td>
<td>General public, professionals or practitioners</td>
<td>General audience</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>A structured format of the content; cover art is plain and usually few advertisements</td>
<td>It varies depends on the sources</td>
<td>Glossy cover art; ads in the content</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Extensive research articles and analysis written in formal academic styles; Language is very specific to scholars in the field and hard for the general public to understand.</td>
<td>Government documents published not for commercial purposes; industry or market analysis; consulting firms publications; often require professional knowledge and vocabulary for the content to be fully understood.</td>
<td>No specific knowledge or vocabulary is needed for general public to understand the content.</td>
</tr>
<tr>
<td><strong>Publisher</strong></td>
<td>Academic organizations</td>
<td>Usually government, professional and trade organisations, consulting firms</td>
<td>Commercial publishers</td>
</tr>
</tbody>
</table>
Peer Review

- Who are the ‘peers’?
- A quality control process
  - Single blind review (traditional; most common)
  - Double blind review
  - Open review
- Peer-reviewed = refereed
- How to determine whether a journal is peer reviewed or not
  - check the journal’s website
  - look at the structure of the article (abstract? references?)
The Peer Review Process video by Western Libraries
Scholarly & Popular Sources Examples

Scholarly / academic sources:

*Peer-reviewed* journal articles, academic books, conference proceedings, websites of government organizations, academic institutions, research centres, etc.

Popular sources:

Magazines, general news, business and entertainment publications, social media sources, etc.
## Examples

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Scholarly Journals      | *Science*  
|                         | *Journal of Sport & Social Issues*          |
| Popular magazines       | *Scientific America*  
|                         | *Canadian Living*                           |
| Grey literature         | *Engineering Dimensions*  
|                         | *Canadian census profile*  
|                         | *Boston Consulting Group’s reports*         |
Professional / Trade Sources

- In between scholarly and popular sources
- A type of grey literature
- Written by professionals or practitioners in the industry or professional field
- Provide current trends and news in the industry or field; do not tend to cover research findings
- Contain more advertising (usually specific to the industry or field) than scholarly journals
- Do not go through the peer review process

Examples:

Publishers Weekly; Education Digest; Engineering Dimensions.
Scholarly? Popular?
In-class Exercise

Discuss in small groups:

What is the type for each source? Why?

Report back to the class in 5 minutes.

Structure of a Research Paper

- Abstract
- Introduction
- Methodologies
- Discussions
- Conclusion
- References

Anatomy of a scholarly article
Reading an Academic Article

First pass (to get the framework):

- Go over Abstract, Introduction, and Conclusion
- Summary of the paper in one or two sentences
- Jot down questions about the content (& highlight unfamiliar words)

Questions to ask yourself:

- What is the point or thesis of this paper?
- What are the main arguments?
- Why is this paper important?
- How does it contribute to my field of study?

(Adapted from video by UBC iSchool)
Reading an Academic Article

Second pass:

- Find out the meanings of those highlighted words
- Pay close attention to the *beginning* and the *end* of each major section

(Adapted from [video](#) by UBC iSchool)
Reading an Academic Article

Third pass (critical analysis):

- Look at evidence, arguments and conclusions
- Think about these questions
  - Did the author do what they set out to do?
  - Are the methods they used sound?
  - Are their arguments fluid and logical?
  - What assumptions did they make?

(Adapted from video by UBC iSchool)
In-class Exercise

** Summary & Critical analysis
Literature Review
Scholarship as Conversation

One of the six Information Literacy Frameworks defined by the Association of College and Research Libraries

Communities of scholars, researchers, or professionals engage in sustained discourse with new insights and discoveries occurring over time as a result of varied perspectives and interpretations.

Cited from the ACRL webpage
Research is a conversation:

- Smith says...
  - Jones has found that...
  - Blackstone thinks Smith is out to lunch and has his own findings
  - Dickson agrees with Jones
  - Corban finds some value in Smith but also sees merit in Blackstone

You make sense of it all, and offer evidence for your judgment of who is most to be believed.
Literature Review

● An analysis and critical evaluation of existing literature on a certain topic
  ○ present the existing knowledge and ideas and their weaknesses and strength
● Not a mere summary of other articles
● It should be organized by research themes instead of authors
Literature Review

Purposes of a literature review:

● To justify your project and set the context for your topic
● To find a gap in the research so you can contribute something original
Literature Review Examples

http://guides.lib.uwo.ca/ld.php?content_id=12405373

Examples #1 - #4
# Synthesis Matrix Technique

Take notes of your reading in a table/grid

<table>
<thead>
<tr>
<th></th>
<th>Concept #1</th>
<th>Concept #2</th>
<th>Concept #3</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith, et al.</td>
<td>xxxx</td>
<td></td>
<td>xxxx</td>
<td></td>
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<td></td>
<td>(page #)</td>
<td></td>
<td>(page #)</td>
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<tr>
<td>Blackstone</td>
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<td>xxxx</td>
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</table>

Developed by NC State University Writing and Speaking Tutorial Service; refer to [this page](#) for details.
What We’ve Covered Today

- Development of research questions
- Development of preliminary outlines as research blueprints
- Scholarly vs. popular sources
- Close reading of a research article
- Literature review

Please bring your laptops or tablets for the next class. Thanks!