



Welcome to Strategies for Researchers in 10 minutes, your starting point to developing the researching strategies that will help you succeed in your university career.

RESEARCHER'S NOTEBOOK

- ◉ Keeps track of sources, notes, thoughts, questions, etc ...
- ◉ Methods
 - Physical: Three-ring Binder
 - Electronic: Zotero (www.zotero.org/)
- ◉ Suggested ways of dividing up your notebook:
 - Working Hypothesis / Thesis
 - Research Strategy
 - Sources
 - Reading Notes
- ◉ “Insurance Policy”

The foundation of the research strategy advice you will hear in this presentation is the Researcher's Notebook. This notebook is used to keep track of your sources, develop a research strategy, record your notes, thoughts, and any further questions that may arise, and develop a working hypothesis or thesis.

The best tool to use for your researcher's notebook is a three ring binder so you can add, remove, and reorganize your research easily. You could also keep an electronic notebook via folders and files, or by using specialized software such as Zotero.

How you organize your notebook is ultimately up to you, but some suggested ways of dividing up your notebook are:

Working Hypothesis/Thesis: this section will be continually referred to and updated over the course of your research. It's always good to check back on your working thesis to see how your assumptions have changed over time. You can use things like concept maps, flow charts and outlines (more on these later) to help structure this section and your overall paper.

Research Strategy: this section includes your list of things to do, your schedule, and how you are going to outline your research.

Sources: this section includes a list of complete citations for all the books, journal articles, and other sources you require or have reviewed.

Reading Notes: this section includes a log of all your readings as well as reflections and recitations (more on that later) for each of the sources you have read.

Lastly, as vital as your researcher's notebook is to the process of writing a research paper, it can also be a useful “insurance policy” when talking to your professor. Being able to show the process and steps you've taken to arrive at your conclusions can be very useful when asking for extra help, and can protect you if there are ever any questions of academic misconduct pertaining to your work.

MANAGING RESEARCH TIME

- ◉ Assess the amount of work that needs to be completed and chunk it into manageable units.
- ◉ Prioritize this work and set due dates.
- ◉ Schedule your due dates on long-term schedules and schedule time to complete this work on short-term schedules.
- ◉ More information on time management is available on the Study Skills web site.

Managing your time is one of the fundamental skills necessary to researching and writing academic papers.

Time management has three main parts to it. First, assess the amount of work that needs to be completed in order to complete your research assignment. Your assignment is more than just writing; you have to choose a topic; develop a thesis; find, assess, and read source material; write; edit; re-write; re-edit; and polish your final written assignment. Chunking your work into these smaller units will make your assignments manageable.

Second, prioritize how you should complete your chunked work and set “soft” due dates for completion. These due dates will help you stay on track to completion.

Third, mark your due dates on a long-term schedule like a term or monthly schedule; and schedule time throughout the week to complete your goals on a short-term schedule like a weekly schedule or to-do list.

For more information on time management, check out the “Time Management” workshop on the Study Skills & Centre’s website.

RESEARCHING TAKES TIME

Example Research Paper

Task	Time
Pre-research and topic development	3 hours
Research Strategy Development	2 hours
Thesis Development (ongoing throughout process)	2 hours
Locate and Assess Source Material (8 sources)	4 hours
Critically Read Sources (1 hour per source / 8 sources)	8 hours
Draft 1 (1 hour per page / 8 pages)	8 hours
Editing Draft 1	2 hours
Draft 2	4 hours
Editing Draft 2	2 hours
Final Draft	2 hours
Total Time Commitment for a Single Research Paper	37 hours

The example on this slide illustrates the amount of time required for a single research paper assignment. Many students are shocked to see a research assignment broken down into its base components and the amount of time required for each component. Of course, the time commitment listed in this example are estimates. Some students may take less or more time to complete each component. The important message to take away from this example is that most good research papers cannot be written the night before. Chunk out your assignments and work on them over the term, not the day before.

Once you have developed a schedule, keep it in the “Research Strategies” section of your researcher’s notebook and refer to it weekly to ensure that you are on track to a successful research paper.

RESEARCH STRATEGIES

- ◉ Challenge your assumptions and biases; and develop questions to push your research forward.
- ◉ Create an outline
 - Bulleted List
 - Visual techniques like flowcharts and mind maps



If you were to break down most papers into their basic elements, you'd find that they're really just answering a series of small questions eventually leading towards a bigger question or conclusion. Because of this, your research can be driven forward by challenging your assumptions and biases, asking yourself questions, and then finding the answers to your questions. Your researcher's notebook is the perfect place for this dialogue to take place. As you're researching, continuously try to challenge yourself and ask yourself questions about your topic and the research you're doing, and try to answer them in your notebook.

The use of organizational techniques like flowcharts and mind maps can help you visualize the "big picture" of your paper, as well as the steps required to get there. If you are not a visual person, try bulleted lists.

Referring back to your research strategy throughout the research process can help you stay on your research path and not stray too far from your goals and objectives. Your research path should not be a rigid line that prevents you from expanding your learning; but it shouldn't also be a maze bringing you further and further away from your thesis.

SEARCHING FOR SOURCES

- ◉ Electronic searches include:
 - Scholar's Portal
 - Google Scholar

- ◉ Before starting a search query brainstorm a list of possible key words to search including any possible synonyms.
 - E.g. teen = adolescent = "young adult"

- ◉ Track your search queries, search method, and date of search to ensure that you don't waste time repeating the same search.

Once you have a research strategy outlined you can begin to search for academic source material in earnest. The most common method to search for academic source materials, like journal articles, is through electronic databases. Two of the most common databases used by students are "Scholar's Portal" and "Google Scholar".

Before starting your searches you should brainstorm a list of possible key words to include in your search queries. As well, always consider synonyms when developing search queries. For example, a "teen" can also be referred to as a "teenager", an "adolescent", and a "young adult". Don't limit yourself to just one word or phrase.

Lastly, it is important to keep track of what search queries you are running, on what database you are running them, and on what day. It is easy to forget what you have searched for, and then repeat a search unnecessarily multiple times. This process results in time wasted. Keeping track of your searches can prevent this problem from happening. As well, by keeping track of your searches you can also decide whether you want to re-run a specific successful search query once a month to see whether any additional source material has become available since your last search.

Your search strategies are a component of your research strategy and should be kept in the "Research Strategies" section of your researcher's notebook.

YOUR LIBRARIAN

- ◉ Each academic department at the University has a Librarian assigned to it.
- ◉ These Librarians are experts in the sources available for your field of study.
- ◉ If you need assistance searching for sources and further organizing your research make an appointment with your librarian.

Visit the Library @ library.wlu.ca

Each academic department at the University has a Liaison Librarian assigned to it who's responsibility it is to ensure that the Library has the latest journals in their assigned academic discipline, and who becomes an expert and a resource to both students and professors in finding relevant academic research material. Find out who your Librarian is by visiting the Library's web site and make an appointment today.

CRITICAL READING

○ PQ4R

- Preview abstracts and journal articles.
- Generate questions to push your research forward.
- Read your journal articles in manageable chunks.
- Reflect on how the arguments in the journal articles affect your thesis or its relationship with other journal articles.
- Recite what you have learnt from the journal article into notes or cue cards.
- Review the journal article when necessary.

When you have started collecting your source material you now have to read each of these materials critically to get the most relevant information out of them. The best way to critically read is to use a strategy called PQ4R.

Preview abstracts and journal articles ahead of time to ensure that your source material is relevant to your research paper. Many researcher's waste time by reading journal articles which, while may be interesting, are not relevant to their research project.

Generate **questions** to push your research forward similar to our discussion about developing a research strategy. What questions to the author's raise? What questions do the presented arguments raise in you?

Read your journal articles in manageable chunks. Heading by heading or five pages at a time to both prevent fatigue and allow you to properly assess what you are reading.

Reflect on how the arguments you are reading in your source materials affect your thesis or their relationship with other source material. You can also use visual tools like mind-mapping to help organize your reflections.

Recite what you have learnt from your source material into notes or cue cards. Use the "Article Summary Sheet" discussed on the next slide to assist you in analyzing what you remember from the material. This is also a good time to copy down the citation format for your source material so that you will always have it. Store your citations in the "Sources" section of your researcher's notebook.

Review your source material when necessary.

RESEARCH ARTICLE SUMMARY

- When you are done reading your source material you should be able to:
 - Summarize the main arguments
 - Know your personal opinions of the arguments
 - Verify the validity of the arguments/article
 - Be able to cross-reference the arguments with the arguments of your other source material.

Using a specific process to evaluate your source material, like journal articles, in your research can be time consuming, but is ultimately well worth it in the long run. If you put in the time and stick to a specific process this method of summarizing your research becomes second nature.

The “Research Article Summary” handout provided on this page provides you with a framework for this type of process. Along with space for a summary of the article in your own words, there is also room to expand on details such as the validity of the evidence, arguments and conclusion within the article, and how you plan on incorporating the article into your research paper. As I said before, although this process can be time consuming at first, if you practice evaluating everything you read with this type of method, you will internalize it and benefit from it every time you do research in the future.

You should store your article summaries in the “Reading Notes” section of your researcher’s notebook so that you can refer back to them when necessary.

THE WRITING PROCESS

- ◉ Writing is an “organic” process that occurs throughout the researching process.
- ◉ Writing is a process that involves drafts, edits, and re-writes to come to a final product.
- ◉ Take advantage of Learning Services’ Writing Centre for consultations and workshops.

Visit the Writing Centre @ www.wlu.ca/writing

As you move through the research process you will also begin to start writing the first draft of your research paper. The multiple draft process is a powerful and necessary tool to move the writing process forward to completion. Few people get things right on the first try. So why assume that your first draft paper is the best? Take advantage of the workshops and individual consultation offered by Learning Services’ Writing Centre to become a better academic writer.

DRAFTING PROCESS

- ◉ Develop a personalized “Proofing Sheet”.
- ◉ Proofing Strategies:
 - proof for one item at a time
 - use the “find” function in your word processor
- ◉ Have a friend assist you in proofing your paper.

When editing your research papers it is important to create a process to assist you in your proofing. We have included a “Sample Proofing Sheet” in the handout section of this page that lists many of the common problems students face in academic writing. Space has been purposefully left on this sheet to allow you to add the common grammar, structural, and other writing challenges that you personally face.

When proofing your drafts, try to focus on one item at a time, rather than just reading the document for any possible errors. Your mind can not keep track of every thing you must look for. Another good tool is the “find” feature available in most word processors. Using “find”, you can search for specific words to make sure you’re using them in the right context; for example, their, there, and they’re.

Lastly, make an agreement with a friend that you will proof each other’s work. Use your proofing sheets as guidelines and don’t be afraid to provide critical feedback to your friend. The only way we can grow as a researcher, learner, and person is through good feedback.

STILL HAVE QUESTIONS?

- ◉ For even more help with improving your researching skills, or for advice on other ways to improve your study habits, visit our website:

www.wlu.ca/study

- ◉ Visit the Study Skills office: Room 117, Macdonald House Residence, first floor
- ◉ Call to book an appointment: 519.884.0710 ext. 2222

Everyone has their own style when it comes to doing completing a research paper, but hopefully this presentation gave you some ideas and frameworks to build on. Proper, efficient academic research is one of the most important skills you can learn while at university, so it's worth the time to make sure you're on the right track as early as possible.

For more assistance and information about research strategies, visit our website, stop by the Study Skills Office, or call to book an appointment with the Centre's Coordinator — you'll be glad you did!