

THE RESEARCH PAPER
GETTING STARTED

Adapted by Larry Couture

from

STYLE MANUAL
FOR THE PREPARATION AND PRESENTATION OF REPORTS
AT OLDS COLLEGE

Original Version by
MICHELE WEATHERHEAD-SMITH

Updated and adapted by Larry Couture and Brad Dowell

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Introduction

This style manual is intended for post-secondary students at Olds College to assist them in the preparation of various types of written documents. This style manual has been developed with both experienced and beginning writers in mind.

Although writing is a skill that students have been perfecting for most of their lives, the conventions of academic writing, with its stringent requirements, can be quite foreign. When students begin college, they enter a community whose conventions regarding communication are firmly established. An academic writer needs to communicate ideas to instructors and peers, clearly and concisely, following an acceptable format. Several college writing assignments require students to research an area of knowledge or a skill. Other assignments ask that students analyze a problem or the body of work that exists regarding a topic. It is inconsequential whether the assignment is labeled as a manuscript, an essay, a report, or some other term to describe a writing assignment; the ideals that define good writing are consistent.

When the guidelines presented herein differ from those of your instructor, follow the instructor's specifications. For instructional purposes, the requirements of the instructor take precedence.

The Process of Writing

A. Planning

Prewriting

Generally, the more time that you devote to planning and prewriting, the less time that you will spend writing and revising. When faced with a writing assignment, you have several considerations before picking up a pen or touching a keyboard. First, think about your subject. Often, your instructor defines or limits your topic. Look for key words in the assignment. Have you been asked to compare, contrast, discuss, or evaluate? If you are unsure what you are expected to do, clarify this with your instructor. Occasionally, you are given the freedom to choose a subject that interests you. Regardless of the origin of the topic, the writer must be sure that the topic is significant, or important. In addition, the topic needs to be narrow enough that it can be covered adequately, but not so narrow that it is not supportable. If you choose the right subject you have a better chance of writing an excellent paper. A specific subject will usually produce a better paper than a broad one. For example, a paper entitled, “The History of the Soviet Union” would likely not be as successful as a paper entitled “The Krushchev Era”.

Second, consider your audience. What knowledge does your audience have about the subject and what knowledge do you need to share with them? Whether your audience is your instructor or peers in your field, you can assume they are intelligent as well as interested in your topic. Moreover, knowing your audience helps you decide what level of vocabulary and sentence complexity to use.

Third, it is critical that you have a specific purpose in mind. In general, the purposes of writing include to inform, to persuade, or to entertain. For technical writing, the purpose is clearly to inform the reader. The clearer you are in identifying the purpose, the easier the paper will be to define and write. Your purpose influences the research you do, which in turn refines your purpose. When you begin, it is impossible to know where your research will lead you. Only after you have done some research will you know whether your initial idea should remain the focus of your investigation. Finally, keep in mind the prescribed length of the paper, ensuring that the scope of your topic is suitable for a paper of this length.

Brainstorming and Free Writing

There are a variety of ways to get ideas down on paper. Some writers find that brainstorming is an excellent way to generate ideas. To brainstorm, allow your mind to focus on your topic and wander freely within the framework of the subject. Begin with the topic and check some general reference sources to gain background, if this topic is new to you. When ideas are not coming freely, it may be useful to ask questions about

the topic. One idea will usually lead to another until the list of ideas is exhausted. Good ideas are usually expanded upon and poor ideas are discarded.

Another useful technique for generating ideas is free writing, during which you write non-stop about the subject for a prescribed length of time. You then review what is written and develop your main points from this information.

Outlining and Organization

When you brainstorm or free write, you narrow the focus of the paper and give some definition to what main points need to be expanded upon. As you review your notes a common theme should become evident. This is the basis for your thesis statement. The thesis statement is the central subject about which the paper is structured and the main ideas developed related to this subject. Everything in the paper should both be developed around and related to this statement.

Several student writers proclaim that they prefer to write their thesis statement after they write the rest of the paper. If you neglect to define your thesis clearly, you will be uncertain of what you have committed yourself to as you research and draft your paper. Only by a stroke of luck can you avoid vague, purposeless writing as you wind your way through your ideas. Although your thesis statement will at first be tentative, as you research and draft your paper, it will become more definite. A thesis developed early on in the writing process helps you to keep track of your idea as you write your way through your paper.

The thesis statement must be clearly stated, or if it is not stated explicitly, it must be readily definable by the reader. When you write your thesis, it should be clear, written with specific concrete words. In addition, the thesis statement should not simply state the topic. It should be analytic; that is, it should not merely state what your paper is about, but rather it should state something about your topic. Use your own words in the thesis statement rather than a quotation. Avoid using generalities and clichés. An easy definition for a thesis statement is one or two sentences that identify **the subject, main ideas and order of main ideas** in the written document.

Poor thesis statement: In my paper, I will discuss *Laccaria proxima*.

Better thesis statement: *Laccaria proxima* is a native North American ectomycorrhizal fungus occurring as a pioneer with many coniferous species.

The subject of this thesis statement is: *Laccaria proxima*. The main ideas and the order are: 1) it is a native fungus and 2) it is a pioneer with many coniferous species.

Also, your review of the brainstorming or free writing notes should reveal several main points that help develop the thesis. By both selecting important main points and eliminating non-essential ideas before beginning the research process, you will save a great deal of time. Ensure that your main points are relevant and significant. As well, it is critical that they support the thesis statement.

Your main points will then need to be organized into a provisional outline. Ensure that the outline fulfills the promise implied by the thesis statement. As the writing process clarifies and refines your topic, the outline and thesis statement will require revision to accommodate missing parts. The outline developed on paper will simplify the research and writing process by supplying direction. Finally, the outline gives some ideas regarding the various headings you may choose to employ in the organization of the manuscript.

Strong organization is key to any type of paper. An appropriate sequence for the presentation of information is essential so the reader understands the topic. The main points can be organized in a variety of ways: chronological, climactic order, logical, cause and effect, or random. Chronological order works especially well when presenting a series of steps, or directions. With climactic order, all of the points lead up to the strongest, or most important point. To attract reader interest, lead off with the second strongest point. Logical order is chosen when one point leads logically to the next. This is useful when it is necessary to understand one point first in order to understand the next. Information can also be organized according to cause and effect. In this order, causes are related to certain effects, or effects attributed to certain causes. If all things are equal, the points can be placed in random order. Choose the order that best suits your topic.

Depending on what software is employed, most computer word processing programs have outlining capabilities that simplify this process. One way to format the outline for the secondary research paper is as follows:

TITLE

I. Introduction

- A. Background to the thesis**
- B. Thesis or preview statement**
(subject, main ideas and order of main ideas)

II. Body Paragraphs

- A. Topic Sentence for the first main idea**
 - 1. Supporting detail**
 - 2. Supporting detail**

- 3. **Supporting detail**

- B. Topic Sentence for the second main idea**
 - 1. **Supporting detail**
 - 2. **Supporting detail**
 - 3. **Supporting detail**

- C. Topic Sentence for the third main idea**
 - 1. **Supporting detail**
 - 2. **Supporting detail**
 - 3. **Supporting detail**

- III. Conclusion**
 - A. Review of main ideas or findings**
 - B. Restatement of thesis or preview**
 - C. A link to larger issues or future research**

B. Researching

A research paper is a critical inquiry based on sources of knowledge. These sources of knowledge are uncovered through the process of research. Research is a purposeful process for systematically discovering, testing, and sharing new ideas. Although research typically begins with a problem or question, and moves towards a solution or answer, it rarely proceeds in a direct fashion. You begin with an idea, then follow that with background research and writing. You may then need to modify your idea, or even begin the process all over again. As you research, your ideas become clearer and more definitive. Effective research involves several steps:

Fact Gathering

Explore available resources. Search out essential information and exciting data. There are several different ways to carry out research. Pure research, which refers to original experiments carried out in the laboratory or the field, is often associated with the natural sciences. This research is often shared in the primary research paper. Other sources of primary research include interviews, visits, observations, as well as reading and analyzing unedited written material such as scientific reports or financial reviews. Secondary, or scholarly, research refers to the finding, reading, and analyzing of research that has been published by others.

Research at Olds College.

Olds College contains a large collection designed to support the various programs offered at the college. The collection includes print material such as books, journals, newspapers, CD-ROM, Internet access, government documents, and the Agdex index, which lists the college's holdings of Canadian federal and provincial publications on agricultural topics. Generally the best place to begin your research is using the library's search system, the NEOS system. Using this computerized system, you can search your topic by subject, using a variety of keywords related to your topic. If you know any authorities on your subjects you can also run a search of the author's name as well. Finally, if you know the name of any books on the subject, this search system will tell you if the library carries a given book and if it is available. In addition, you can search the most recent journals, e-journals and databases for information. While you are searching, check the reference sections of the books and articles you have discovered. Often these will lead you to other excellent sources. The on-line database system on the Olds College library webpage gives you access to a multitude of academic sources of research.

Evaluating your Sources

Evaluating material as you go through it will keep you from wasting time in the research phase as well as ensure that you present a creditable paper. Ask yourselves the following questions: First, is the source relevant to your topic? Next, evaluate the author. Is he a reliable expert in this field? What are his credentials? What type of publication is the source from? Is it well known? Does it have a reputation for being fair or biased?

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Examine the date and place of publication. Is the information recent? Is it published by a scientific body or by an independent body with something to gain?

Note Taking

As you go through your sources, you will want to take notes for use in your final work. You will need to acknowledge anything you borrow from your sources. For this reason you will need to develop a system for keeping track of what you are taking from your sources. Many writers find the creation of a working reference page to be a useful exercise. Any quotes, paraphrases, or ideas borrowed can be written out along with the appropriate bibliographic information. Some writers use cards on which to keep this information recorded. Others prefer keeping a separate database for reference information. This information will save much backtracking later when you are preparing your reference list.

C. Writing

The Research Paper

The research paper involves finding, selecting, evaluating, and organizing information that has already been published. Research papers often serve a variety of purposes. They may describe and illustrate a problem. As well, they may summarize any previous studies on the problem and inform the reader of the status of the research. A research paper may present new theories on a specific problem, relating them to the theories that already exist. Preparing research papers offer critical practice in the organization and presentation of coherent thoughts on a subject.

A common research paper simply asks you to research a topic and share your discovered knowledge of the topic. The purpose of this type of paper is to learn about that topic and to organize a coherent, unified report on the topic. These papers usually follow the pattern for a conventional essay. If the research paper is complex, you may require the use of headings to keep information organized and readable.

As previously mentioned, the research paper often follows, or incorporates, the format of the conventional essay. In other words, it has an introduction, a body and a conclusion. The introduction should have a thesis statement that defines the content of the work and gives some indication as to how this content will be developed. Also, any background information that the reader needs in order to read further and understand is explained in the introduction. The body of the paper contains the bulk of your writing. Main points are delivered and supported and the relevant data is presented. The paper is organized, coherently, with main points separated into distinct paragraphs. Each paragraph has a clear topic sentence, which introduces the reader to the main idea of the paragraph. All paragraphs containing research material should contain a balance of explanation and detail. To support your points, provide a link between your research materials and the points you are trying to make. Finally, the conclusion sums up the paper, restating the purpose. It may also provide a link between your paper and what you expect will happen in the future.

The Early Drafts

Begin drafting your paper in the area where you feel most confident. Some writers like to begin with the introduction and progress through the paper in order. Others find sections such as materials and results to be easier to begin with. Regardless of your personal approach, the important thing is to get your ideas down on paper. As you write the first draft, keep the working reference page updated. Try to write for a prescribed period of time without stopping. Do not be overly concerned with errors at this stage. Many writers who become too wrapped up in perfection spend a great deal of time spinning

their wheels at this stage. Get your ideas down on paper and become concerned with excellence later.

A good strong beginning will engage the reader's attention, lead them toward the central idea or thesis and give a clear sense of direction. Your hypothesis or thesis statement should be clearly stated and should cover specifically what your paper is about. An effective technique for introducing a technical paper is to pose the research question at the beginning of the paragraph and answer it with the thesis or hypothesis near the end of the paragraph. Develop ideas fully using a variety of techniques such as narration, examples, facts, statistics, analogy, contrasts, and description. The conclusion should leave the reader with a sense of satisfaction that the research question has been thoroughly answered.

Tone and style should also be considered when writing papers. Tone refers to the attitude a writer shows toward his subject, his reader and himself. Examples of tones are formal, informal, serious, lighthearted, and satirical. A formal tone is preferred for most technical writing. Each writer has his own style. Style refers to tone as well as the way a writer expresses himself through language.

Be prepared to write as many as three to five drafts, revising after each one.

Clarity

Clarity in writing results from a number of elements. First, your paper needs to be well organized and supported so that the readers can easily understand your points. Another element of clarity is unity. Clear writing stays focused and on track. The thesis statement should be fully proven in the body of a paper. All the points and facts presented must relate to the thesis; any information that does not develop the thesis does not belong in the paper. Consequently, it may be necessary to adapt the thesis and the outline as you go along to keep unity.

In addition to maintaining unity within the whole of the paper, it is also necessary to maintain unity within each paragraph. Each paragraph should have a central idea. This central idea is expressed in a topic sentence and supported with specific details. All the details in the paragraph must relate specifically to the topic sentence of the paragraph.

Coherence, which means, "sticking together," also helps bring clarity to writing. Coherence is brought about in two ways. First, the sentences within each paragraph must be placed in an order that enhances the supporting details. A writer can choose from a variety of organizational techniques. Many of these organizational techniques are the same as those used for ordering the main points within an essay: chronological, climactic order, logical, or cause and effect. Additional techniques include moving from a general statement toward specific details, or alternatively, moving from the specific to the

general. Spatial order is an effective organizational technique for visual descriptions, especially useful for explaining the appearance or types of equipment used in the primary research paper or lab report. Second, not only must details be arranged effectively in a written document, they must be connected in a way that shows their relation to one another. Important words to aid in coherence are transitional words. These words help ideas flow smoothly from one to the next and show a clear relationship between ideas.

Transitional words.

Time:

after, eventually, finally, first, in the future, in conclusion, later, meanwhile, next, now, once, second, third, to begin with, previously, subsequently

Addition:

and, also, another, as well, besides, for example, furthermore, in addition, moreover

Contrast/comparison:

although, but, conversely, however, in contrast, likewise, nevertheless, on the other hand, otherwise, similarly, unfortunately, yet

Cause/effect:

accordingly, as a result, because, consequently, hence, since, so, therefore

Careful word choice, or diction, also brings clarity to a manuscript. To help keep your writing clear, use concrete language, or words that are specific, realistic and colourful. Try to avoid generalization when writing.

Wordiness and redundancy are major impediments to clarity. Many writers overlook the need for conciseness in writing. Several writers, in a misguided effort to impress, chose convoluted sentence patterns filled with embellishments and ornate, poetic descriptions. When writers become driven by the need to impress with lengthy, verbose sentences, they lose the very message they are trying to convey. A writer needs to use enough words to be accurate, ensuring that they clearly state what it is necessary to say, without losing the reader in tedious deadwood. It is important, however, to remember that a long sentence is not always wordy and a short sentence is not always concise. Writing is considered wordy when several words are used to express an idea that can be expressed in few. Use the following list to eliminate the following unnecessary words from your writing:

- Avoid unnecessary words such as very, extremely, and just.
- Reduce phrases to single words: “at this point in time” can be changed to “now”; “for the fact that” can be changed to “because”, “the person who does my typing” can be changed to “my assistant”, “in the event that” can be changed to “if”.
- Eliminate irrelevant details, empty phrases, unnecessary explanations and excuses.

- Eliminate redundant phrases. Redundancy occurs when repetition occurs within a phrase. Following are some commonly used redundant phrases that would be more concisely expressed by the underlined portion of the phrase only.

cooperate together advance forward small in size absolutely nothing
basic essentials continue on few in number could possibly
circled around refer back disappear from view true fact

Do not overuse jargon or technical terminology. Jargon refers to the technical words that are specific to an area of study. These technical words are suitable for writing in specialized areas when the readers are sure to know the meanings; however, an overuse hinders the clarity of writing.

D. Editing and Revising

Revision

Once you have prepared your early drafts, you must begin the process of revision. Revision, which means re-visioning the expression of your ideas, involves major rewriting and reworking to improve the paper. In order to revise effectively, you may need to add, delete, substitute or re-order information. This should be done on three different levels: the overall essay, whole paragraphs, and individual sentences. Keep in mind the purpose of your paper and make changes that further that purpose. Areas to consider for revision include content, organization, and clarity. Use the Revision Checklist included in the appendix to ensure your draft is ready for editing.

Editing

Once the content of your manuscript reflects exactly what you want to say in a well-organized fashion, it is almost ready for the final draft. First, however, it must be edited to meet certain conventions of style. Editing refers to the rewriting to correct grammar, usage, spelling, and punctuation. To prepare your final draft, use the Editing Checklist, which appears in the appendix.

Conclusion

This manual offers students essential guidelines necessary to prepare various college written documents such as the research paper. The style manual presents a brief review of the planning, preparation, revision and editing of such documents. In addition, clear guidelines are presented for the format of papers at Olds College.

APPENDICES

Revision Checklist

Content and Organization

- 1. The document is addressed to a specific audience.**
- 2. The subject is significant.**
- 3. The topic is of an appropriate scope (neither too broad, nor too narrow).**
- 4. The topic is stated in a clear, supportable thesis.**
- 5. Nothing should be added, cut out or moved.**

Paragraphs

- 1. The main point of each paragraph develops and supports the thesis.**
- 2. Each paragraph has no more than one main idea.**
- 3. Each paragraph has a topic sentence, adequate supporting details, and a conclusion.**
- 4. The best order has been chosen for the main points.**

Sentences

- 1. Sentences are clearly worded.**
- 2. Transitional words are used to connect ideas.**
- 3. The tone is appropriate.**
- 4. There is not an overuse of jargon.**
- 5. More words than necessary are not used to express thoughts.**
- 6. There are no redundancies.**
- 7. Colloquialisms do not appear in the manuscript.**

Editing Checklist

Sentence Structure

- 1. There are no sentence fragments.**
- 2. There are no comma splices.**
- 3. There are no run on sentences.**
- 4. There are no modifier errors.**
- 5. There are no errors in parallelism.**

Grammar

- 1. All verbs agree with their subjects.**
- 2. All pronouns agree with their antecedents.**
- 3. There are no shifts in verb tense or person.**

Punctuation

- 1. Each sentence ends with an appropriate end mark.**
- 2. Commas, colons, and semicolons are used correctly.**
- 3. Dashes, parentheses, and slashes are not overused and are used correctly.**
- 4. Quotation marks are used correctly.**
- 5. Apostrophes are used properly.**

Spelling

- 1. All words are spelled correctly.**
- 2. Words that sound alike are used correctly.**
- 3. Contractions are not used in formal work.**

Format

- 1. Numbers, formulas, and equations are used properly.**
- 2. References are documented according to APA standards.**
- 3. Document is formatted properly according to instructor and APA guidelines.**

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