

# Advice on Academic Writing



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These files answer the kinds of questions that University of Toronto students ask about their written assignments. Most were created by writing instructors here--people who are familiar with U of T expectations. But you will also find links to good advice from writing instructors at [other institutions](#).

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# Grammar and Punctuation

These files will give you places to start in finding advisory material about correct language use. The first one was developed specifically to remind University of Toronto students of the points that bother U of T instructors. The rest come from other institutions. Browse to see what suits your needs; then you can use individual files to look up questions or review points.

- [Hit Parade of Errors in Style, Grammar, and Punctuation](#)  
From Dena Taylor of the Health Sciences Writing Centre, a quick overview of the thirteen most common and bothersome errors. Using student examples, she defines the problems and shows revisions.
- [Grammar and Style Notes](#) (Jack Lynch, University of Pennsylvania)  
This set of comments on various problems of usage and grammar is witty as well as sensible. Worth browsing.
- [Purdue University Online Writing Lab handouts](#)  
This is the best and most inclusive set of online handouts on writing. Start with the indexes and browse through the sections that are most useful to you.
- [HyperGrammar at the University of Ottawa](#)  
This impressive set of files helps you build an understanding of grammatical terms and standard usage. Start by reviewing terminology, then go on to look at specific items and try out online quizzes.
- [The UVic Writer's Guide](#)  
This attractively-designed and well-written set of advisory files is especially useful for literary essays.
- [NASA on Grammar, Punctuation, and Capitalization](#)  
You might not think that astronauts care about details of language use, but apparently scientists on the ground do. This online handbook gives careful explanations and well-chosen examples for stylistic questions faced by science writers. The chapters on [punctuation](#) and [capitalization](#) are especially helpful.

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## Some Answers for Writers of English as a Second Language

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- Self-Help [Books](#) for Learning English as a Second Language
- How to Use [Prepositions](#): Tips and Exercises (Helsinki University)

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# Some General Advice on Academic Essay-Writing

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1. Miscellaneous observations on a topic are not enough to make an accomplished academic essay. An essay should have an **argument**. It should answer a question or a few related questions (see 2 below). It should try to **prove** something--develop a single "thesis" or a short set of closely related points--by reasoning and evidence, especially including apt examples and confirming citations from any particular text or sources your argument involves. Gathering such evidence normally entails some rereading of the text or sources with a question or provisional thesis in mind.
2. When--as is usually the case--an assigned topic does not provide you with a thesis ready-made, your first effort should be to formulate as exactly as possible the **question(s)** you will seek to answer in your essay. Next, develop by thinking, reading, and jotting a provisional thesis or **hypothesis**. Don't become prematurely committed to this first answer. Pursue it, but test it--even to the point of consciously asking yourself what might be said **against** it--and be ready to revise or qualify it as your work progresses. (Sometimes a suggestive possible **title** one discovers early can serve in the same way.)
3. There are many ways in which any particular argument may be well presented, but an essay's **organization**--how it begins, develops, and ends--should be designed to present your argument clearly and persuasively. (The order in which **you** discovered the parts of your argument is seldom an effective order for presenting it to a reader.)
4. Successful **methods of composing** an essay are various, but some practices of good writers are almost invariable:
  - They **start writing early**, even before they think they are "ready" to write, because they use writing not simply to transcribe what they have already discovered but as a means of exploration and discovery.

- They don't try to write an essay from beginning to end, but rather write **what seems readiest to be written**, even if they're not sure whether or how it will fit in.
- Despite writing so freely, they **keep the essay's overall purpose and organization in mind**, amending them as drafting proceeds. Something like an "**outline**" constantly and consciously evolves, although it may never take any written form beyond scattered, sketchy reminders to oneself.
- They **revise extensively**. Rather than writing a single draft and then merely editing its sentences one by one, they attend to the whole essay and draft and redraft--rearranging the sequence of its larger parts, adding and deleting sections to take account of what they discover in the course of composition. Such revision often involves putting the essay aside for a few days, allowing the mind to work indirectly or subconsciously in the meantime and making it possible to see the work-in-progress more objectively when they return to it.
- Once they have a fairly complete and well-organized draft, they **revise sentences**, with special attention to **transitions**--that is, checking to be sure that a reader will be able to follow the sequences of ideas within sentences, from sentence to sentence, and from paragraph to paragraph. Two other important considerations in revising sentences are **diction** (exactness and aptness of words) and **economy** (the fewest words without loss of clear expression and full thought). Lastly, they **proofread** the final copy.

Visit these links for help on specific stages of the essay-writing process:

- [Understanding the Topic](#)
- [Using Thesis Statements](#)
- [Providing Evidence](#) (University of Victoria)
- [Taking Notes from Research Reading](#)
- [Searching for Ideas](#) (Purdue University)
- [Overcoming Writer's Block](#) (Purdue University)
- [Organizing an Essay](#)
- [Preparing an Outline](#) (University of Victoria)
- [Revising and Editing](#)
- Improving [Sentence Construction](#) (University of Ottawa)
- Improving [Transitions](#) (Purdue University)
- Eliminating [Wordiness](#)
- [Proofreading](#)

## Understanding Essay Topics: A Checklist

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Before you plunge into research or writing, think through the specific topic you are dealing with. Remember, you are not being asked just to collect facts, but to **develop and display your powers of reasoning**. You can save yourself time and frustration by beginning this reasoning early in the process. Here are some steps:

1. **Note the key terms**, including those naming parts of the topic and those giving directions for dealing with it. Look especially for words that define the kind of reasoning you should be using: *why*, *how*, *analyse*, *compare*, *evaluate*, *argue*, etc. Be sure you understand the specific meanings of these terms.
  - *Analyse* means look behind the surface structure of your source material. See the relationship of parts to whole. Be able to recognize relationships such as cause and effect, even if it's unstated in what you read. Look for underlying assumptions and question their validity. *How and why* imply an answer reached by analysis.
  - *Compare* means find differences as well as similarities. You will need to formulate the aspects which you are looking at in each item; consider organizing your paper by using these aspects as headings.
  - *Evaluate* stresses applying your judgement to the results of your analysis. It asks for an opinion based on well-defined criteria and clearly stated evidence. Wording such as *to what extent* also asks for an evaluation of an idea.
  - *Argue (or agree or disagree)* likewise asks you to take a stand based on analysis of solid evidence and explained by clear reasoning. You will need to consider other possible viewpoints and defend your own in comparison.

- **Note which concepts or methods** the topic asks you to use. Are you to argue a point with others, or to explore your own responses? Does the topic ask you to go into depth about some material already covered? Or does it suggest that you evaluate a theory or model by applying it to an example from outside the course material? Whatever the design, an essay assignment expects you to use course **concepts and ways of thinking**; it encourages you to break new ground for yourself in applying course **methodology**.

- To generate ideas from which you can choose the direction of your research or preliminary analysis, **ask yourself questions** about the specific topic in terms of the concepts or methods that seem applicable. Looking for **controversies** in the material will also help you find things worth discussing. You may want to look at some general articles in reference works such as encyclopaedias to see how others have framed questions or seen problems to discuss. (For further advice on methods of generating ideas, see Purdue's file on [Invention](#).)

- For an essay of argument, formulate a **tentative thesis statement** at a fairly early stage--that is, a statement of your own likely position in the controversy that most interests you, or your preliminary answer to an important interpretive question. You do not have to stick to this answer or statement, but it will help focus your investigation. (See [Using Thesis Statements](#) for advice on how and when to centre your papers on thesis statements.)

Now you will have some sense of direction--even if you eventually choose another path than the one you have mapped. You are ready to begin gathering and analysing your specific material (see [Taking Notes from Research Reading](#)).

# ORGANIZING AN ESSAY

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Basic Guidelines | A Common Pitfall | Sample Outline  
When to Begin Planning? | Planning Techniques  
Reverse Outline | How Much Time to Plan?

## *Some basic guidelines*

The best time to think about how to organize your paper is during the pre-writing stage, not the writing or revising stage. A well-thought-out plan can save you from having to do a lot of reorganizing when the first draft is completed. Moreover, it allows you to pay more attention to sentence-level issues when you sit down to write your paper.

When you begin planning, ask the following questions: What type of essay am I going to be writing? Does it belong to a specific genre? In university, you may be asked to write, say, a book review, a lab report, a document study, or a compare-and-contrast essay. Knowing the patterns of reasoning associated with a genre can help you to structure your essay.

For example, book reviews typically begin with a summary of the book you're reviewing. They then often move on to a critical discussion of the book's strengths and weaknesses. They may conclude with an overall assessment of the value of the book. These typical features of a book review lead you to consider dividing your outline into three parts: (1) summary; (2) discussion of strengths and weaknesses; (3) overall evaluation. The second and most substantial part will likely break down into two sub-parts. It is up to you to decide the order of the two subparts--whether to analyze strengths or weaknesses first. And of course it will be up to you to come up with actual strengths and weaknesses.

Be aware that genres are not fixed. Different professors will define the features of a genre differently. Read the assignment question carefully for guidance.

Understanding genre can take you only so far. Most university essays are argumentative, and there is no set pattern for the shape of an argumentative essay. The simple three-point essay taught in high school is far too restrictive for the complexities of most university assignments. You must be ready to come up with whatever essay structure helps you to convince your reader of the validity of your position. In other words, you must be flexible, and you must rely on your wits. Each

essay presents a fresh problem.

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### ***Avoiding a common pitfall***

Though there are no easy formulas for generating an outline, you can avoid one of the most common pitfalls in student papers by remembering this simple principle: the structure of an essay should not be determined by the structure of its source material. For example, an essay on an historical period should not necessarily follow the chronology of events from that period. Similarly, a well-constructed essay about a literary work does not usually progress in parallel with the plot. Your obligation is to advance your argument, not to reproduce the plot.

If your essay is not well structured, then its overall weaknesses will show through in the individual paragraphs. Consider the following two paragraphs from two different English essays, both arguing that despite Hamlet's highly developed moral nature he becomes morally compromised in the course of the play:

**(a) In Act 3, Scene 4, Polonius hides behind an arras in Gertrude's chamber in order to spy on Hamlet at the bidding of the king. Detecting something stirring, Hamlet draws his sword and kills Polonius, thinking he has killed Claudius. Gertrude exclaims, "O, what a rash and bloody deed is this!" (28), and her words mark the turning point in Hamlet's moral decline. Now Hamlet has blood on his hands, and the blood of the wrong person. But rather than engage in self-criticism, Hamlet immediately turns his mother's words against her: "A bloody deed - almost as bad, good Mother, as kill a king, and marry with his brother" (29-30). One of Hamlet's most serious shortcomings is his unfair treatment of women. He often accuses them of sins they could not have committed. It is doubtful that Gertrude even knows Claudius killed her previous husband. Hamlet goes on to ask Gertrude to compare the image of the two kings, old Hamlet and Claudius. In Hamlet's words, old Hamlet has "Hyperion's curls," the front of Jove," and "an eye like Mars" (57-58). Despite Hamlet's unfair treatment of women, he is motivated by one of his better qualities: his idealism.**

**(b) One of Hamlet's most serious moral shortcomings is his unfair treatment of women. In Act 3, Scene 1, he denies to Ophelia ever having expressed his love for her, using his feigned madness as cover for his cruelty. Though his rantings may be an act, they cannot hide his obsessive anger at one particular woman: his mother. He counsels Ophelia to "marry a fool, for wise men know well enough what monsters you make of them" (139-41), thus blaming her in advance for the sin of adultery. The logic is plain: if Hamlet's mother made a cuckold out of Hamlet's father, then all women are capable of doing the same and therefore share the blame. The fact that Gertrude's hasty remarriage does not actually constitute adultery only underscores Hamlet's tendency to find in women faults that do not exist. In Act 3, Scene 4, he goes as far as to suggest that Gertrude shared responsibility in the murder of Hamlet's father (29-30). By condemning women for actions they did not commit, Hamlet is doing just what he accuses Guildenstern of doing to him: he is plucking out the "heart" of their "mystery" (3.2.372-74).**

The second of these two paragraphs is much stronger, largely because it is not plot-driven. It makes a well-defined point about Hamlet's moral nature and sticks to that point throughout the paragraph. Notice that the paragraph jumps from one scene to another as is necessary, but the logic of the argument moves along a steady path. At any given point in your essays, you will want to leave yourself free to go wherever you need to in your source material. Your only obligation is to further your argument. Paragraph (a) sticks closely to the narrative thread of Act 3, Scene 4, and as a result the paragraph makes several different points with no clear focus.

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### ***What does an essay outline look like?***

Most essays outlines will never be handed in. They are meant to serve you and no one else. Occasionally, your professor will ask you to hand in an outline weeks prior to handing in your paper. Usually, the point is to ensure that you are on the right track. Nevertheless, when you produce your outline, you should follow certain basic principles. Here is an example of an outline for an essay on *Hamlet*:

thesis: Despite Hamlet's highly developed moral nature, he becomes morally compromised while delaying his revenge.

- I. Introduction: Hamlet's father asks Hamlet not only to seek vengeance but also to keep his mind untainted.
- II. Hamlet has a highly developed moral nature.
  - A. Hamlet is idealistic.
  - B. Hamlet is aware of his own faults, whereas others are self-satisfied.
  - C. Hamlet does not want to take revenge without grounds for acting.
- III. Hamlet becomes morally compromised while delaying.
  - A. The turning point in Hamlet's moral decline is his killing of Polonius.
  - B. Hamlet's moral decline continues when he sends Rosencrantz and Guildenstern to their death.
  - C. Hamlet already began his moral decline before the turning point in the play, the killing of Polonius.
    1. Hamlet treats women badly.
    2. Hamlet criticizes others in the play for acting falsely to get ahead, but in adopting the disguise of madness he, too, is presenting a false face to the world.
- IV. Though Hamlet becomes more compromised the longer he delays, killing the king would have been a morally questionable act.
- V. Conclusion: The play *Hamlet* questions the adequacy of a system of ethics based on honour and revenge.

This is an example of a sentence outline. Another kind of outline is the topic outline. It consists of fragments rather than full sentences. Topic outlines are more open-ended than sentence outlines: they leave much of the working out of the argument for the writing stage.

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### ***When should I begin putting together a plan?***

The earlier you begin planning, the better. It is usually a mistake to do all of your research and note-taking before beginning to draw up an outline. Of course, you will have to do some reading and weighing of evidence before you start to plan. But as a

potential argument begins to take shape in your mind, you may start to formalize your thoughts in the form of a tentative plan. You will be much more efficient in your reading and your research if you have some idea of where your argument is headed. You can then search for evidence for the points in your tentative plan while you are reading and researching. As you gather evidence, those points that still lack evidence should guide you in your research. Remember, though, that your plan may need to be modified as you critically evaluate your evidence.

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### ***Some techniques for integrating note-taking and planning***

Though convenient, the common method of jotting down your notes consecutively on paper is far from ideal. The problem is that your points remain fixed on paper. Here are three alternatives that provide greater flexibility:

#### **method 1: index cards**

When you are researching, write down every idea, fact, quotation, or paraphrase on a separate index card. Small (5" by 3") cards are easiest to work with. When you've collected all your cards, reshuffle them into the best possible order, and you have an outline, though you will undoubtedly want to reduce this outline to the essential points should you transcribe it to paper.

A useful alternative involves using both white and coloured cards. When you come up with a point that you think may be one of the main points in your outline, write it at the top of a coloured card. Put each supporting note on a separate white card, using as much of the card as necessary. When you feel ready, arrange the coloured cards into a workable plan. Some of the points may not fit in. If so, either modify the plan or leave these points out. You may need to fill gaps by creating new cards. You can shuffle your supporting material into the plan by placing each of the white cards behind the point it helps support.

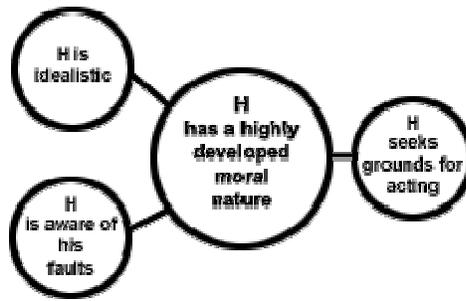
#### **method 2: the computer**

A different way of moving your notes around is to use the computer. You can collect your points consecutively, just as you would on paper. You can then sort your ideas when you are ready to start planning. Take advantage of "outline view" in Word, which makes it easy for you to arrange your points hierarchically. This method is fine so long as you don't mind being tied to your computer from the first stage of the writing process to the last. Some people prefer to keep their planning low-tech.

#### **method 3: the circle method**

This method is designed to get your ideas onto a single page, where you can see them all at once. When you have an idea, write it down on paper and draw a circle around it. When you have an idea which supports another idea, do the same, but connect the two circles with a line. Supporting source material can be represented concisely by a page reference inside a circle. The advantage of the circle method is that you can see at a glance how things tie together; the disadvantage is that there is a limit to how much material you can cram onto a page.

Here is part of a circle diagram:



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### ***What is a reverse outline?***

When you have completed your first draft, and you think your paper can be better organized, consider using a reverse outline. Reverse outlines are simple to create. Just read through your essay, and every time you make a new point, summarize it in the margin. If the essay is reasonably well-organized, you should have one point in the margin for each paragraph, and your points read out in order should form a coherent argument. You might, however, discover that some of your points are repeated at various places in your essay. Other points may be out of place, and still other key points may not appear at all. Think of all these points as the ingredients of an improved outline which you now must create. Use this new outline to cut and paste the sentences into a revised version of your essay, consolidating points that appear in several parts of your essay while eliminating repetition and creating smooth transitions where necessary.

You can improve even the most carefully planned essay by creating a reverse outline after completing your first draft. The process of revision should be as much about organization as it is about style.

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### ***How much of my time should I put into planning?***

It is self-evident that a well-planned paper is going to be better organized than a paper that was not planned out. Thinking carefully about how you are going to argue your paper and preparing an outline can only add to the quality of your final product. Nevertheless, some people find it more helpful than others to plan. Those who are good at coming up with ideas but find writing difficult often benefit from planning. By contrast, those who have trouble generating ideas but find writing easy may benefit from starting to write early. Putting pen to paper (or typing away at the keyboard) may be just what is needed to get the ideas to flow.

You have to find out for yourself what works best for you, though it is fair to say that at least some planning is always a good idea. Think about whether your current practices are serving you well. You know you're planning too little if the first draft of your essays is always a disorganized mess, and you have to spend a disproportionate amount of time creating reverse outlines and cutting and pasting material. You know you're planning too much if you always find yourself writing your paper a day before it's due after spending weeks doing research and devising elaborate plans.

Be aware of the implications of planning too little or too much.

**Planning** provides the following **advantages**:

- helps you to produce a **logical** and **orderly** argument that your readers can follow
- helps you to produce an **economical** paper by allowing you to spot repetition
- helps you to produce a **thorough** paper by making it easier for you to notice whether you have left anything out
- makes drafting the paper easier by allowing you to concentrate on writing issues such as grammar, word choice, and clarity

**Overplanning** poses the following **risks**:

- doesn't leave you enough time to write and revise
- leads you to produce papers that try to cover too much ground at the expense of analytic depth
- can result in a writing style that lacks spontaneity and ease
- does not provide enough opportunity to discover new ideas in the process of writing

## Using Thesis Statements

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When you are asked to write an essay that creates an argument, your reader will probably expect a clear statement of your position. Typically, this summary statement comes in the first paragraph of the essay, though there is no rigid rule about position. Here are some characteristics of good thesis statements, with samples of good and poor ones. Note that the better examples substitute specific argumentative points for sweeping general statements; they indicate a theoretical basis and promise substantial support. (See [Some Myths About Thesis Statements](#), below, for a discussion of times not to use a thesis statement. See also the file [General Advice on Essay Writing](#).)

1. **It makes a definite and limited assertion that needs to be explained and supported by further discussion:**

**trite, irrelevant**

Shakespeare was the world's greatest playwright.

**intriguing**

The success of the last scene in *Midsummer Night's Dream* comes from subtle linguistic and

theatrical references to Elizabeth's position as queen.

**2. It shows the emphasis and indicates the methodology of your argument:**

- emotional, vague** This essay will show that the North American Free Trade agreement was a disaster for the Canadian furniture industry.
- worth attention** Neither neo-protectionism nor post-industrial theory explains the steep reversal of fortune for the Canadian furniture industry in the period 1988-1994. Data on productivity, profits, and employment, however, can be closely correlated with provisions of the North American Free Trade Agreement that took effect in the same period.

**3. It shows awareness of difficulties and disagreements:**

- sweeping, vague** Having an official policy on euthanasia just causes problems, as the Dutch example shows.
- suitably complex** Dutch laws on euthanasia have been rightly praised for their attention to the principles of self-determination. Recent cases, however, show that they have not been able to deal adequately with issues involving technological intervention of unconscious patients. Hamarckian strategies can solve at least the question of assignation of rights.

### **Some Myths about Thesis Statements**

- *Every paper requires one.* Assignments that ask you to write personal responses or to explore a subject don't want you to seem to pre-judge the issues. Essays of literary interpretation often want you to be aware of many effects rather than seeming to box yourself into one view of the text.
- *A thesis statement must come at the end of the first paragraph.* This is a natural position for a statement of focus, but it's not the only one. Some theses can be stated in the opening sentences of an essay; others need a paragraph or two of introduction; others can't be fully formulated until the end.

- *A thesis statement must be one sentence in length, no matter how many clauses it contains.* Clear writing is more important than rules like these. Use two or three sentences if you need them. A complex argument may require a whole tightly-knit paragraph to make its initial statement of position.
- *You can't start writing an essay until you have a perfect thesis statement.* It may be advisable to draft a hypothesis or tentative thesis statement near the start of a big project, but changing and refining a thesis is a main task of thinking your way through your ideas as you write a paper. And some essay projects need to explore the question in depth without being locked in before they can provide even a tentative answer.
- *A thesis statement must give three points of support.* It should indicate that the essay will explain and give evidence for its assertion, but points don't need to come in any specific number.

# Developing Coherent Paragraphs

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[Use Topic Sentences](#) | [Expand on the Topic Sentences](#)  
[Use Appropriate Linking Tactics](#) | [Vary Paragraph Length](#)

Paragraph structures provide a map for your ideas, guiding readers through your reasoning. Keep this simple set of principles in mind while you write, and use it as a checklist when you're revising.

## Use Topic Sentences

State the **central idea** of each paragraph explicitly in a topic sentence. That's one way to show that you have thought through your material.

In academic writing, the topic sentence nearly always works best at the *beginning* of a paragraph so that the reader knows what to expect. Don't count on your readers to guess what your paragraph is going to be about.

NOTE: The first and last paragraphs of an essay are exceptions to this rule. In both instances, readers already know you're leading up to something, and you can save the topic sentence to make a strong paragraph ending.

## Expand on the Topic Sentences

The body of a paragraph *develops* and *demonstrates* what your topic sentences state. Here are some common patterns:

- Explain more fully what you mean, giving **definitions** or indicating **distinctions**.
- Offer **details**, **examples**, or **relevant quotations** (with your comments).
- Follow through a **logical sequence**, showing the connections among your ideas in a recognizable pattern such as cause and effect or comparison and contrast.

(To see other strategies for [developing paragraphs](#), follow this link to U of Ottawa's HyperGrammar. To learn more about topic sentences, visit the UC Writing Workshop's file on [Using Topic Sentences](#).)

## Show Connections

Be sure your intended logic is clear. Often the simplest words do the most to pull together ideas. **Pronouns** such as *it* and *they* and *this* keep the focus on the ideas announced at the beginning of the paragraph--as long as they are clearly linked to specific nouns (see the Purdue University file on [pronoun reference](#)). **Deliberate repetition** of key words also helps. This paragraph shows the interweaving of key nouns and pronouns to emphasize the point that Canadians share an interest in communication:

It's perhaps not surprising that Marshall McLuhan, the most influential **communications** expert of the twentieth century, was a **Canadian**. As a **nation**, **we** have been **preoccupied** with forging **communication** links among a sparse, widespread population. The old **Canadian** one-dollar bill, with its line of telephone poles receding to the distant horizon, illustrates **this preoccupation**. Year after year **we** strive to maintain a **national** radio and television broadcasting system in the face of foreign competition. **We** have been aggressive in entering the international high technology market with **our telecommunications** equipment.

(from Northey, *Impact: A Guide to Business Communication*. Toronto: Prentice-Hall, 1993, p. 3.)

Certain **specialized linking words** can also be powerful tools for pulling ideas together. But don't just sprinkle them into your sentences-- use them to support your logic. Here are some examples:

### To signal a reinforcement of ideas:

also	in other words	in addition
for example	moreover	more importantly

### To signal a change in ideas:

but	on the other hand	however
instead	yet	in contrast
although	nevertheless	in spite of [something]

### To signal a conclusion:

thus	therefore	accordingly
in conclusion	finally	so [ <i>informal</i> ]

## Choose Appropriate Paragraph Length

A series of long paragraphs can make prose dense and unpleasant to read. Check any paragraph that is longer than a page to see if it would work better as two or more paragraphs. Break it at a logical place (e.g., where your focus shifts), and see whether you need to create new topic sentences to make the shift clear.

Also look for paragraphs only two or three sentences long. They make academic writing seem disjointed or skimpy. Try combining a few short paragraphs into one, using a single topic sentence to hold them together.

## USING TOPIC SENTENCES

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What is a topic sentence? | Where does it go? | Must it be at the beginning of a paragraph?  
What makes a good one? | Does every paragraph need one?

### *What is a topic sentence?*

A topic sentence states the main point of a paragraph: it serves as a mini-thesis for the paragraph. You might think of it as a signpost for your readers—or a headline—something that alerts them to the most important, interpretive points in your essay. When read in sequence, your essay's topic sentences will provide a sketch of the essay's argument. Thus topic sentences help protect your readers from confusion by guiding them through the argument. But topic sentences can also help you to improve your essay by making it easier for you to recognize gaps or weaknesses in your argument.

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### *Where do topic sentences go?*

Topic sentences usually appear at the very beginning of paragraphs. In the following example from *Anatomy of Criticism*, Northrop Frye establishes the figure of the tragic hero as someone more than human, but less than divine. He backs up his claim with examples of characters from literature, religion and mythology whose tragic stature is a function of their ability to mediate between their fellow human beings and a power that transcends the merely human:

**The tragic hero is typically on top of the wheel of fortune, half-way between human society on the ground and the something greater in the sky.** Prometheus, Adam, and Christ hang between heaven and earth, between a world of paradisaal freedom and a world of bondage. Tragic heroes are so much the highest points in their human landscape that they seem the inevitable conductors of the power about them, great trees more likely to be struck by lightning than a clump of grass. Conductors may of course be

instruments as well as victims of the divine lightning: Milton's Samson destroys the Philistine temple with himself, and Hamlet nearly exterminates the Danish court in his own fall.

The structure of Frye's paragraph is simple yet powerful: the topic sentence makes an abstract point, and the rest of the paragraph elaborates on that point using concrete examples as evidence.

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## ***Does a topic sentence have to be at the beginning of a paragraph?***

No, though this is usually the most logical place for it. Sometimes a transitional sentence or two will come before a topic sentence:

We found in comedy that the term *bomolochos* or buffoon need not be restricted to farce, but could be extended to cover comic characters who are primarily entertainers, with the function of increasing or focusing the comic mood. **The corresponding contrasting type is the suppliant, the character, often female, who presents a picture of unmitigated helplessness and destitution.** Such a figure is pathetic, and pathos, though it seems a gentler and more relaxed mood than tragedy, is even more terrifying. Its basis is the exclusion of an individual from the group; hence it attacks the deepest fear in ourselves that we possess--a fear much deeper than the relatively cosy and sociable bogey of hell. In the suppliant pity and terror are brought to the highest possible pitch of intensity, and the awful consequences of rejecting the suppliant for all concerned is a central theme of Greek tragedy.

The context for this passage is an extended discussion of the characteristics of tragedy. In this paragraph, Frye begins by drawing a parallel between the figure of the buffoon in comedy and that of the suppliant in tragedy. His discussion of the buffoon occurred in a earlier section of the chapter, a section devoted to comedy. The first sentence of the current paragraph is transitional: it prepares the way for the topic sentence. The delayed topic sentence contributes to the coherence of Frye's discussion by drawing an explicit connection between key ideas in the book. In essays, the connection is usually between the last paragraph and the current one.

Sometimes writers save a topic sentence for the end of a paragraph. You may, for example, occasionally find that giving away your point at the beginning of a paragraph does not allow you to build your argument toward an effective climax.

[Top]

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## ***How do I come up with a topic sentence? And what makes a good one?***

Ask yourself what's going on in your paragraph. Why have you chosen to include the information you have? Why is the paragraph important in the context of your argument? What point are you trying to make?

Relating your topic sentences to your thesis can help strengthen the coherence of your essay. If you include a thesis statement in your introduction, then think of incorporating a keyword from that statement into the topic sentence. But you need

not be overly explicit when you echo the thesis statement. Better to be subtle rather than heavy-handed. Do not forget that your topic sentence should do more than just establish a connection between your paragraph and your thesis. Use a topic sentence to show how your paragraph contributes to the *development* of your argument by moving it that one extra step forward. If your topic sentence merely restates your thesis, then either your paragraph is redundant or your topic sentence needs to be reformulated. If *several* of your topic sentences restate your thesis, even if they do so in different words, then your essay is probably repetitive.

[Top]

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### ***Does every paragraph need one?***

No, but most do. Sometimes a paragraph helps to develop the same point as in the previous paragraph, and so a new topic sentence would be redundant. And sometimes the evidence in your paragraph makes your point so effectively that your topic sentence can remain implicit. But if you are in doubt, it's best to use one.

## **The Academic Proposal**

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An academic proposal is the first step in producing a thesis or major project. Its intent is to convince a supervisor or academic committee that your topic and approach are sound, so that you gain approval to proceed with the actual research. As well as indicating your plan of action, an academic proposal should show your theoretical positioning and your relationship to past work in the area.

An academic proposal is expected to contain these elements:

- a **rationale** for the choice of topic, showing why it is important or useful within the concerns of the discipline or course. It is sensible also to indicate the limitations of your aims--don't promise what you can't possibly deliver.
- a **review** of existing published work ("the literature") that relates to the topic. Here you need to tell how your proposed work will build on existing studies and yet explore new territory (see the file on [The Literature Review](#)).
- an **outline** of your intended approach or methodology (with comparisons to the existing published work), perhaps including costs, resources needed, and a timeline of when you hope to get things done.

Particular disciplines may have standard ways of organizing the proposal. Ask within your department about expectations in your field. In any case, in organizing your material, be sure to emphasize the specific focus of your work--your research question.

Use headings, lists, and visuals to make reading and cross-reference easy. And employ a concrete and precise style to show that you have chosen a feasible idea and can put it into action. Here are some general tips:

- Start with **why** your idea is worth doing (its contribution to the field), then fill in **how** (technicalities about topic and method).
- Give enough detail to establish feasibility, but not so much as to bore the reader.
- Show your ability to deal with possible problems or changes in focus.
- Show confidence and eagerness (use *I* and active verbs, concise style, positive phrasing).

(See also this online handout from a presentation on the [Thesis and Grant Proposal](#).)

## Engineering Communication Centre The University of Toronto

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[Laboratory Reports](#)

### Overview

This document describes a general format for lab reports that you can adapt as needed. Lab reports are the most frequent kind of document written in engineering and can count for as much as 25% of a course but yet little time or attention is devoted to how to write them well. Worse yet, each professor wants something a little different. Regardless of variations, however, the goal of lab reports remains the same: document your findings and communicate their significance. With that in mind, we can describe the report's format and basic components. Knowing the pieces and purpose, you can adapt to the particular needs of a course or professor.

A good lab report does more than present data; it demonstrates the writer's comprehension of the concepts behind the data. Merely recording the expected and observed results is not sufficient; you should also identify how and why differences occurred, explain how they affected your experiment, and show your understanding of the principles the experiment was designed to examine. Bear in mind that a format, however helpful, cannot replace clear thinking and organized writing. You still need to organize your ideas carefully and express them coherently.

### Typical Components

- [Title Page](#)
- [Abstract](#)
  - *Note:* Verb Tenses
- [Introduction](#)
- [Methods and Materials \(or Equipment\)](#)
- [Results](#)
- [Discussion](#)
- [Conclusion](#)
- [References](#)
- [Appendices](#)

- [Experimental Procedure](#)

- [Further Reading](#)

**1. The Title Page** needs to contain the name of the experiment, the names of lab partners, and the date. Titles should be straightforward, informative, and less than ten words (i.e. Not "Lab #4" but "Lab #4: Sample Analysis using the Debye-Sherrer Method").

**The Abstract** summarizes four essential aspects of the report: the purpose of the experiment (sometimes expressed as the purpose of the report), key findings, significance and major conclusions. The abstract often also includes a brief reference to theory or methodology. The information should clearly enable readers to decide whether they need to read your whole report. The abstract should be one paragraph of 100-200 words (the sample below is 191 words).

#### Quick Abstract Reference

##### Must have:

1. Purpose
2. Key result(s)
3. Most significant point of discussion
4. Major conclusion

##### May include:

1. Brief method
2. Brief theory

##### Restrictions:

ONE page  
200 words MAX.

#### Sample Abstract

This experiment examined the effect of line orientation and arrowhead angle on a subject's ability to perceive line length, thereby testing the Müller-Lyer illusion. The Müller-Lyer illusion is the classic visual illustration of the effect of the surrounding on the perceived length of a line. The test was to determine the point of subjective equality by having subjects adjust line segments to equal the length of a standard line. Twenty-three subjects were tested in a repeated measures design with four different arrowhead angles and four line orientations. Each condition was tested in six randomized trials. The lines to be adjusted were tipped with outward pointing arrows of varying degrees of pointedness, whereas the standard lines had inward pointing arrows of the same degree. Results showed that line lengths were overestimated in all cases. The size of error increased with decreasing arrowhead angles. For line orientation, overestimation was greatest when the lines were horizontal. This last is contrary to our expectations. Further, the two factors functioned independently in their effects on subjects' point of subjective equality. These results have important implications for human factors design applications such as graphical display interfaces.

**3. The Introduction** is more narrowly focussed than the abstract. It states the objective of the experiment and provides the reader with background to the experiment. State the topic of your report clearly and concisely, in one or two sentences:

**Example:** The purpose of this experiment was to identify the specific element in a metal powder sample by determining its crystal structure and atomic radius. These were determined using the Debye-Sherrer (powder camera) method of X-ray diffraction.

#### Quick Intro Reference

##### Must Have:

A good introduction also provides whatever background theory, previous research, or formulas the reader needs to know. Usually, an instructor does not want you to repeat the lab manual, but to show your own comprehension of the problem. For example, the introduction that followed the example above might describe the Debye-Sherrer method, and explain that from the diffraction angles the crystal structure can be found by applying Bragg's law. If the amount of introductory material seems to be a lot, consider adding subheadings such as: **Theoretical Principles** or **Background**.

1. Purpose of the experiment  
2. Important background and/or theory

**May include:**

1. Description of specialized equipment  
2. Justification of experiment's importance

**Note on Verb Tense**

Introductions often create difficulties for students who struggle with keeping verb tenses straight. These two points should help you navigate the introduction:

- The experiment is already finished. Use the *past* tense when talking about the experiment.

"The objective of the experiment **was**..."

- The report, the theory and permanent equipment still exist; therefore, these get the present tense:

"The purpose of this report **is**..."

"Bragg's Law for diffraction **is** ..."

"The scanning electron microscope **produces** micrographs ..."

**4. Methods and Materials (or Equipment)** can usually be a simple list, but make sure it is accurate and complete. In some cases, you can simply direct the reader to a lab manual or standard procedure: "Equipment was set up as in CHE 276 manual."

**5. Experimental Procedure** describes the process in chronological order. Using clear paragraph structure, explain all steps in the order they actually happened, not as they were supposed to happen. If your professor says you can simply state that you followed the procedure in the manual, be sure you still document occasions when you did not follow that exactly (e.g. "At step 4 we performed four repetitions instead of three, and ignored the data from the second repetition"). If you've done it right, another researcher should be able to duplicate your experiment.

**6. Results** are usually dominated by calculations, tables and figures; however, you still need to state all significant results explicitly in verbal form, for example:

Using the calculated lattice parameter

gives, then,  
 $R = 0.1244\text{nm}$ .

Graphics need to be clear, easily read, and well labeled (e.g. Figure 1: Input Frequency and Capacitor Value). An important strategy for making your results effective is to draw the reader's attention to them with a sentence or two, so the reader has a focus when reading the graph.

In most cases, providing a sample calculation is sufficient in the report. Leave the remainder in an appendix. Likewise, your raw data can be placed in an appendix. Refer to appendices as necessary, pointing out trends and identifying special features.

### Quick Results Reference

1. Number and Title tables and graphs
2. Use a sentence or two to draw attention to key points in tables or graphs
3. Provide sample calculation only
4. State key result in sentence form

**7. Discussion** is the most important part of your report, because here, you show that you understand the experiment beyond the simple level of completing it. Explain. Analyse. Interpret. Some people like to think of this as the "subjective" part of the report. By that, they mean this is what is not readily observable. This part of the lab focuses on a question of understanding "What is the significance or meaning of the results?" To answer this question, use both aspects of discussion:

#### 1. Analysis

What do the results indicate clearly?

What have you found?

Explain what you know with certainty based on your results and draw conclusions:

Since none of the samples reacted to the Silver foil test, therefore sulfide, if present at all, does not exceed a concentration of approximately 0.025 g/l. It is therefore unlikely that the water main pipe break was the result of sulfide-induced corrosion.

#### 2. Interpretation

What is the significance of the results? What ambiguities exist? What questions might we raise? Find logical explanations for problems in the data:

Although the water samples were received on 14 August 2000, testing could not be started until 10 September 2000. It is normally desirable to test as quickly as possible after sampling in order to avoid potential sample contamination. The effect of the delay is unknown.

More particularly, focus your discussion with strategies like these:

- **Compare expected results with those obtained.**

If there were differences, how can you account for them? Saying "human error" implies you're incompetent. Be specific; for example, the instruments could not measure precisely, the sample was not pure or was contaminated, or calculated values did not take account of friction.

- **Analyze experimental error.**

Was it avoidable? Was it a result of equipment? If an experiment was within the tolerances, you can still account for the difference from the ideal. If the flaws result

from the experimental design explain how the design might be improved.

- **Explain your results in terms of theoretical issues.**  
Often undergraduate labs are intended to illustrate important physical laws, such as Kirchhoff's voltage law, or the Müller-Lyer illusion. Usually you will have discussed these in the introduction. In this section move from the results to the theory. How well has the theory been illustrated?
- **Relate results to your experimental objective(s).**  
If you set out to identify an unknown metal by finding its lattice parameter and its atomic structure, you'd better know the metal and its attributes.
- **Compare your results to similar investigations.**  
In some cases, it is legitimate to compare outcomes with classmates, not to change your answer, but to look for any anomalies between the groups and discuss those.
- **Analyze the strengths and limitations of your experimental design.**  
This is particularly useful if you designed the thing you're testing (e.g. a circuit).

**8. Conclusion** can be very short in most undergraduate laboratories. Simply state what you know now for sure, as a result of the lab:

**Example:** The Debye-Sherrer method identified the sample material as nickel due to the measured crystal structure (fcc) and atomic radius (approximately 0.124nm).

Notice that, after the material is identified in the example above, the writer provides a justification. We know it is nickel because of its structure and size. This makes a sound and sufficient conclusion. Generally, this is enough; however, the conclusion might also be a place to discuss weaknesses of experimental design, what future work needs to be done to extend your conclusions, or what the implications of your conclusion are.

#### *Quick Conclusion Reference*

##### **Must do:**

1. State what's known
2. Justify statement

##### **Might do:**

3. State significance
4. Suggest further research

**9. References** include your lab manual and any outside reading you have done. Check the Writing Centre's [documentation](#) website to help you organize references in a way appropriate to your field.

**10. Appendices** typically include such elements as raw data, calculations, graphs pictures or tables that have not been included in the report itself. Each kind of item should be contained in a separate appendix. Make sure you refer to each appendix at least once in your report. For example, the results section might begin by noting: "Micrographs printed from the Scanning Electron Microscope are contained in Appendix A."

#### **Useful Further Reading:**

Porush, David. (1995). *A Short Guide to Writing About Science*. (HarperCollins).

Although, this book uses the "scientific article" as the basic form for writing, it essentially views that as an extended lab report. Therefore, it has useful chapters on each of the sections of a lab report.

Get the [Quick Reference Bars](#) in a Printer friendly form.

## Short Reports

Business and industry, as well as university, often demand short technical reports. They may be proposals, progress reports, trip reports, completion reports, investigation reports, feasibility studies, or evaluation reports. As the names indicate, these reports are diverse in focus and aim, and differ in structure. However, one goal of all reports is the same: to communicate to an audience.

Your audience for an academic report is already very well informed. Your professor and teaching assistants will not usually read your report in order to extract knowledge; instead, they will look for evidence that you understand the material and ideas your report presents. Your document, then, should not only convey information clearly and coherently (such as numbers, facts or equations), but should also, where appropriate, detail the logical processes you relied upon (such as interpretation, analysis, or evaluation).

This document describes a general format for a short report, which you can adapt to the needs of specific assignments. Bear in mind that a format, however helpful, cannot replace clear thinking and [strategic writing](#). You still need to organize your ideas carefully and express them coherently. Be precise and concise.

## Typical Components

- [Title Page](#)
- [Abstract or Summary](#)
- [Introduction](#)
- [Background](#)
- [Discussion](#)
- [Conclusion](#)
- [Recommendations](#)
- [Attachments](#)

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### 1. Title Page

The essential information here is your name, the title of the project, and the date. Be aware of any other information your instructor requires. The title of a report can be a statement of the subject. An effective title is informative but reasonably short. Ornamental or misleading titles may annoy readers.

### 2. Abstract or Summary

This section states the report in miniature. It summarizes the whole report in one, concise paragraph of about 100-200 words. It might be useful to think in terms of writing one sentence to summarize each of the traditional report divisions: objective, method, discussion, conclusions. Emphasize the objective (which states the problem) and the analysis of the results (including recommendations). Avoid the temptation to copy a whole paragraph from elsewhere in your report and make it do double duty. Since the abstract condenses and emphasizes the most important elements of the whole report, you cannot write it until after

you have completed the report. Remember, the abstract should be a precise and specific summary -- give details. A technical document is not a mystery novel -- give your conclusion right away. Support it later.

 This report considers three energy sources and recommends the best one.

*(Too general)*

 This report compares nuclear plants, fossil fuels, and solar generators, in order to determine which energy source will best meet the nation's needs. The criteria for comparison were the economic, social, and environmental effects of each alternative. The study concludes that nuclear energy is the best of these options, because North America is not self-sufficient in fossil fuels, and solar power is currently too unreliable for industrial use. Although nuclear plants are potentially very dangerous, nuclear energy is still the best short-term solution.

*(Specific & detailed)*

### 3. Introduction

3.1. Whereas the abstract summarizes the whole report, the introduction of a technical report identifies the subject, the purpose (or objective), and the plan of development of the report. The subject is the "what", the purpose is the "why", and the plan is the "how." Together these acquaint the reader with the problem you are setting out to solve.

3.2. State the subject and purpose as clearly and concisely as possible, usually in one sentence called the thesis or purpose statement:

 This report describes the design of a full-scale prototype shrimp trawl that would permit a test of the commercial feasibility of electric trawling during daylight.

3.3. Use the introduction to provide the reader with any background information which the reader will need before you can launch into the body of your paper. You may have to define the terms used in stating the subject and provide background such as theory or history of the subject. For example, the purpose statement quoted above might warrant some explanation of daylight trawling or even of the commercial shrimp industry. Avoid the tendency to use the introduction merely to fill space with sweeping statements that are unrelated to the specific purpose of your report ("Throughout the ages, human beings have looked up at the stars and wondered about [your topic here].").

### 4. Background

If the introduction requires a large amount of supporting information, such as a review of literature or a description of a process, then the background material should form its own section. This section may include a review of previous research, or formulas the reader needs to understand the problem. In an academic report, it is also the point where you can show your comprehension of the problem.

### 5. Discussion

5.1. This section is the most important part of your report. It takes many forms and may have subheadings of its own. Its basic components are methods, findings (or results), and evaluation (or analysis). In a progress report, the methods and findings may dominate; a final report should emphasize evaluation. Most academic assignments should also focus on your evaluation of the subject.

5.2. Before you begin writing, ask the journalist's questions: who? when? where? what? why? how? The last three in particular will help you focus analysis. Beyond asking these simple questions, you also need to make decisions such as: How do you interpret the data? What is the significance of your findings?

## 6. Conclusion

What knowledge comes out of the report? As you draw a conclusion, you need to explain it in terms of the preceding discussion. Some repetition of the most important ideas you presented there is expected, but you should avoid copying.

## 7. Recommendations

What actions does the report call for? The recommendations should be clearly connected to the results of the rest of the report. You may need to make those connections explicit at this point--your reader should not have to guess at what you mean. This section may also include plans for how further research should proceed. In professional writing, this section often comes immediately after the introduction.

## 8. Attachments

**8.1.** These will include references and may include appendices. Any research that you refer to in the report must also appear in a list of references at the end of the work so that an interested reader can follow up your work. Since the format for references varies across engineering, consult your instructor, or check a style manual for the field.

**8.2.** Appendices may include raw data, calculations, graphs, and other quantitative materials that were part of the research, but would be distracting to the report itself. Refer to each appendix at the appropriate point (or points) in your report. In industry, a company profile and profile of the professionals involved in a project might also appear as appendices.

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# Revising And Editing

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[Start Large](#) | [Appearance](#)

Revising gives you the chance to preview your work on behalf of the eventual reader. Revision is much more than proofreading, though in the final editing stage it involves some checking of details. Good revision and editing can transform a mediocre first draft into an excellent final paper. It's more work, but leads to real satisfaction when you find you've said what you wanted.

Here are some steps to follow on your own. Writing centres can give you further guidance.

## Start Large, End Small

Revision may mean changing the shape and reasoning in your paper. It often means adding or deleting sentences and paragraphs, shifting them around, and reshaping them as you go. Before dealing with details of style and language (editing), be sure you have presented ideas that are clear and forceful. Make notes as you go through these questions, and stop after each section to make the desired revisions.

1. First check whether you have fulfilled the intention of the **assignment**. Look again at the instruction sheet, and revise your work to be sure you can say yes to these questions:
  - Have you performed the kind of **thinking** the assignment sheet asked for (e.g., analyse, argue, compare, explore)
  - Have you written the **genre** of document called for (e.g., book review, critique, personal response, field notes, research report, lab report, essay)?
  - Have you used **concepts and methods of reasoning** discussed in the course? Don't be shy of using theoretical terms from the course. Also beware of just retelling stories or listing information. Looking at your topic sentences in sequence will show what kinds of ideas you have emphasized. (See our handout on Developing Coherent Paragraphs.)
  - Have you given adequate **evidence** for your argument or interpretation? Be sure that the reader knows why and how your ideas are important. A quick way of checking is to note where your paragraphs go after their topic sentences. Watch out for repetitions of general ideas-look for progression into detailed reasoning, usually including source referencing.
2. Then look at overall **organization**. It's worthwhile to print out everything so that you can view the entire document. Then consider these questions, and revise to get the answers you want:
  - Does your **introduction** make clear where the rest of the paper is headed? If the paper is argument-based, you will likely use a thesis statement. Research papers often start with a statement of the research question. (Ask a clear-headed roommate or other friend to give you a prediction of what he or she expects after reading only the first few paragraphs of your paper. Don't accept a vague answer.)
  - Is each **section** in the right place to fulfil your purpose? (It might help to make a reverse outline: take the key idea from each paragraph or section and set it down in a list so you can see the logical structure of what you've written. Does it hang together? Is it all necessary? What's missing? Revise to fill in gaps and take out irrelevant material.)
  - Have you drawn **connections** between the sections? (Look again at your topic sentences to see if they link back to what has just been said as well as looking forward to the next point. Find ways to draw ideas together explicitly. Use logical statements, not just a sprinkling of connecting words.)
  - Would a person reading your **conclusion** know what question you had asked and how you had arrived at your answer? (Again, ask for a real paraphrase.)
3. Now **polish and edit your style** by moving to smaller matters such as word choice, sentence structure, grammar, punctuation, and spelling. You

may already have passages that you know need further work. This is where you can use computer programs (with care) and reference material such as handbooks and handouts. Here are some tips

- **Read passages aloud** to see if you have achieved the **emphasis** you want. Look for places to use short sentences to draw attention to key ideas, questions, or argumentative statements. If you can't read a sentence all the way through with expression, try cutting it into two or more.
- **Be sure to use spell check.** It will help you catch most typos and many wrongly spelled words. But don't let it replace anything automatically, or you'll end up with nonsense words. You will still have to read through your piece and use a print dictionary or writer's handbook to look up words that you suspect are not right.
- **Don't depend on a thesaurus.** It will supply you with lists of words in the same general category as the one you have tried-but most of them won't make sense. Use plain clear words instead. Use a print dictionary and look up synonyms given as part of definitions. Always look at the samples of usage too.
- **Don't depend on a grammar checker.** The best ones still miss many errors, and they give a lot of bad advice. If you know that you overuse slang or the passive voice, you may find some of the "hits" useful, but be sure to make your own choice of replacement phrases. A few of the explanations may be useful. But nothing can substitute for your own judgement.

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## A Note on Appearance:

Looks do count. Give your instructor the pleasure of handling a handsome document-or at least of not getting annoyed or inconvenienced. These are the basic expectations for any type of assignment

- Include a **cover page** giving the title of your paper, the name of the course, your name, the date, and the instructor's name. Don't bother with coloured paper, fancy print, or decorations.
- **Number your pages** in the top right-hand corner. Omit the number for the first page of your paper (since it will be headed by the title), starting in with 2 on the second page. ○ Double-space your text, including indented quotations, footnotes, and reference lists. Leave margins of one inch (2.5 cm) on all sides of the page.
- **Double-space** your text, including indented quotations, footnotes, and reference lists. Leave margins of one inch (2.5 cm) on all sides of the page.
- Use a **standard font** in twelve-point size. For easier reading, don't right-justify your lines.

- Put the **reference list** or bibliography on a separate page at the end. (See the handout on Standard Documentation Format: choose your format, then use the examples as guides.)
- **Staple** your pages; don't use a bulky binding or cover.

# The Literature Review: A Few Tips On Conducting It

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[What is a review of the literature?](#) | [Questions to Ask Yourself](#)  
[Questions to Ask About Books and Articles](#) | [Final Notes](#)

## What is a review of the literature?

A literature review is an account of what has been published on a topic by accredited scholars and researchers. Occasionally you will be asked to write one as a separate assignment (sometimes in the form of an **annotated bibliography**--see the bottom of the next page), but more often it is part of the introduction to an essay, research report, or thesis. In writing the literature review, your purpose is to convey to your reader what knowledge and ideas have been established on a topic, and what their strengths and weaknesses are. As a piece of writing, the literature review must be defined by a guiding concept (e.g., your research objective, the problem or issue you are discussing, or your argumentative thesis). It is not just a descriptive list of the material available, or a set of summaries.

Besides enlarging your knowledge about the topic, writing a literature review lets you gain and demonstrate skills in two areas:

1. **information seeking:** the ability to scan the literature efficiently, using manual or computerized methods, to identify a set of useful articles and books
2. **critical appraisal:** the ability to apply principles of analysis to identify unbiased and valid studies.

A literature review must do these things:

- a. be organized around and related directly to the thesis or research question you are developing
- b. synthesize results into a summary of what is and is not known
- c. identify areas of controversy in the literature

- d. formulate questions that need further research

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## Ask yourself questions like these:

1. What is the **specific thesis, problem, or research question** that my literature review helps to define?
2. What **type** of literature review am I conducting? Am I looking at issues of theory? methodology? policy? quantitative research (e.g. on the effectiveness of a new procedure)? qualitative research (e.g., studies )?
3. What is the **scope** of my literature review? What types of publications am I using (e.g., journals, books, government documents, popular media)? What discipline am I working in (e.g., nursing psychology, sociology, medicine)?
4. How good was my **information seeking**? Has my search been wide enough to ensure I've found all the relevant material? Has it been narrow enough to exclude irrelevant material? Is the number of sources I've used appropriate for the length of my paper?
5. Have I **critically analysed** the literature I use? Do I follow through a set of concepts and questions, comparing items to each other in the ways they deal with them? Instead of just listing and summarizing items, do I assess them, discussing strengths and weaknesses?
6. Have I cited and discussed studies **contrary** to my perspective?
7. Will the reader find my literature review **relevant, appropriate, and useful**?

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## Ask yourself questions like these about each book or article you include:

1. Has the author formulated a problem/issue?
2. Is it clearly defined? Is its significance (scope, severity, relevance) clearly established?
3. Could the problem have been approached more effectively from another perspective?
4. What is the author's research orientation (e.g., interpretive, critical science, combination)?
5. What is the author's theoretical framework (e.g., psychological, developmental, feminist)?
6. What is the relationship between the theoretical and research perspectives?

7. Has the author evaluated the literature relevant to the problem/issue? Does the author include literature taking positions she or he does not agree with?
8. In a research study, how good are the basic components of the study design (e.g., population, intervention, outcome)? How accurate and valid are the measurements? Is the analysis of the data accurate and relevant to the research question? Are the conclusions validly based upon the data and analysis?
9. In material written for a popular readership, does the author use appeals to emotion, one-sided examples, or rhetorically-charged language and tone? Is there an objective basis to the reasoning, or is the author merely "proving" what he or she already believes?
10. How does the author structure the argument? Can you "deconstruct" the flow of the argument to see whether or where it breaks down logically (e.g., in establishing cause-effect relationships)?
11. In what ways does this book or article contribute to our understanding of the problem under study, and in what ways is it useful for practice? What are the strengths and limitations?
12. How does this book or article relate to the specific thesis or question I am developing?

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## Final Notes:

A literature review is a piece of **discursive prose**, not a list describing or summarizing one piece of literature after another. It's usually a bad sign to see every paragraph beginning with the name of a researcher. Instead, organize the literature review into sections that present themes or identify trends, including relevant theory. You are not trying to list all the material published, but to synthesize and evaluate it according to the guiding concept of your thesis or research question.

If you are writing an **annotated bibliography**, you may need to summarize each item briefly, but should still follow through themes and concepts and do some critical assessment of material. Use an overall introduction and conclusion to state the scope of your coverage and to formulate the question, problem, or concept your chosen material illuminates. Usually you will have the option of grouping items into sections--this helps you indicate comparisons and relationships. You may be able to write a paragraph or so to introduce the focus of each section.

# PARAPHRASE AND SUMMARY

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When to paraphrase and summarize | How to Paraphrase | How to Summarize

## *When should I paraphrase, and when should I summarize?*

To paraphrase means to express someone else's ideas in your own language. To summarize means to distill only the most essential points of someone else's work.

Paraphrase and summary are indispensable tools in essay writing because they allow you to include other people's ideas without cluttering up your essay with quotations. They help you take greater control of your essay. Consider relying on either tool when an idea from one of your sources is important to your essay but the wording is not. You should be guided in your choice of which tool to use by considerations of space. But above all, think about how much of the detail from your source is relevant to your argument. If all your reader needs to know is the bare bones, then summarize.

Ultimately, be sure not to rely too heavily on either paraphrase or summary. Your ideas are what matter most. Allow yourself the space to develop those ideas.

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## *How do I paraphrase?*

Whenever you paraphrase, remember these two points:

1. You must provide a reference.
2. The paraphrase must be entirely in your own words. You must do more than merely substitute phrases here and there. You must also completely alter the sentence structure.

It can be difficult to find new words for an idea that is already well expressed. The following strategy will make the job of paraphrasing a lot easier:

1. When you are at the note-taking stage, and you come across a passage that may be useful for your essay, do not copy the passage verbatim unless you think you will want to quote it.
2. If you think you will want to paraphrase the passage, make a note only of the author's basic point. You don't even need to use full sentences.
3. In your note, you should already be translating the language of the original into your own words. What matters is that you capture the original idea.
4. Make sure to include the page number of the original passage so that you can make a proper reference later on.

When it comes time to write the paper, rely on your notes rather than on the author's work. You will find it much easier to avoid borrowing from the original passage because you will not have recently seen it. Follow this simple sequence:

1. Convert the ideas from your notes into full sentences.
2. Provide a reference.
3. Go back to the original to ensure that (a) your paraphrase is accurate and (b) you have truly said things in your own words.

Let's look at examples of illegitimate and legitimate paraphrase. The original passage is from Oliver Sacks' essay "An Anthropologist on Mars":

The cause of autism has also been a matter of dispute. Its incidence is about one in a thousand, and it occurs throughout the world, its features remarkably consistent even in extremely different cultures. It is often not recognized in the first year of life, but tends to become obvious in the second or third year. Though Asperger regarded it as a biological defect of affective contact—innate, inborn, analogous to a physical or intellectual defect—Kanner tended to view it as a psychogenic disorder, a reflection of bad parenting, and most especially of a chillingly remote, often professional, "refrigerator mother." At this time, autism was often regarded as "defensive" in nature, or confused with childhood schizophrenia. A whole generation of parents—mothers, particularly—were made to feel guilty for the autism of their children.

What follows is an example of **illegitimate paraphrase**:

The cause of the condition autism has been disputed. It occurs in approximately one in a thousand children, and it exists in all parts of the world, its characteristics strikingly similar in vastly differing cultures. The condition is often not noticeable in the child's first year, yet it becomes more apparent as the child reaches the ages of two or three. Although Asperger saw the condition as a biological defect of the emotions that was inborn and therefore similar to a physical defect, Kanner saw it as psychological in origin, as reflecting poor parenting and particularly a frigidly distant mother. During this period, autism was often seen as a defense mechanism, or it was misdiagnosed as childhood schizophrenia. An entire generation of mothers and fathers (but especially mothers) were made to feel responsible for their offspring's autism (Sacks 247-48).

Most of these sentences do little more than substitute one phrase for another. An additional problem with this passage is that the only citation occurs at the very end of the last sentence in the paragraph. The reader might be misled into thinking that the earlier sentences were not also indebted to Sacks' essay.

The following represents a **legitimate paraphrase** of the original passage:

In "An Anthropologist on Mars," Sacks lists some of the known facts about autism. We know, for example, that the condition occurs in roughly one out of every thousand children. We also know that the characteristics of autism do not vary from one culture to the next. And we know that the

condition is difficult to diagnose until the child has entered its second or third year of life. As Sacks points out, often a child who goes on to develop autism will still appear perfectly normal at the age of one (247).

Sacks observes, however, that researchers have had a hard time agreeing on the causes of autism. He sketches the diametrically opposed positions of Asperger and Kanner. On the one hand, Asperger saw the condition as representing a constitutional defect in the child's ability to make meaningful emotional contact with the external world. On the other hand, Kanner regarded autism as a consequence of harmful childrearing practices. For many years confusion about this condition reigned. One unfortunate consequence of this confusion, Sacks suggests, was the burden of guilt imposed on so many parents for their child's condition (247-448).

Notice that this passage makes explicit right from the beginning that the ideas belong to Sacks, and the passage's indebtedness to him is signaled in more than one place. The single parenthetical note at the end of each paragraph is therefore all the citation that is needed. The inclusion of explicit references to Sacks not only makes the job of providing citations easier. It also strengthens the passage by clarifying the source of its facts and ideas. And it adds an analytical dimension to the paragraph: the passage doesn't just reiterate the points in Sacks' passage but lays out the structure of his argument. Note that the paraphrase splits the original into two separate paragraphs to accentuate the two-part structure of Sacks' argument. Finally, notice that not all the details from the original passage are included in the paraphrase.

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### *How do I summarize?*

Summary moves much farther than paraphrase away from point-by-point translation. When you summarize a passage, you need first to absorb the meaning of the passage and then to capture in your own words the most important elements from the original passage. A summary is necessarily shorter than a paraphrase.

Here is a summary of the passage from "An Anthropologist on Mars":

In "An Anthropologist on Mars," Sacks notes that although there is little disagreement on the chief characteristics of autism, researchers have differed considerably on its causes. As he points out, Asperger saw the condition as an innate defect in the child's ability to connect with the external world, whereas Kanner regarded it as a consequence of harmful childrearing practices (247-48).

## The Abstract

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Abstracts are important because they give a first impression of the document that follows, letting readers decide whether to continue reading and showing them what to look for if they do. Though some abstracts only list the contents of the document, the most useful abstracts tell the reader more. An abstract should represent as much as possible of the quantitative and qualitative information in the document, and also reflect its reasoning. Typically, an informative abstract answers these questions in about 100-250 words:

- *Why did you do this study or project?*
- *What did you do, and how?*
- *What did you find?*
- *What do your findings mean?*

If the paper is about a new method or apparatus the last two questions might be changed to

- *What are the advantages (of the method or apparatus)?*
- *How well does it work?*

Here are some other points to keep in mind about abstracts:

- An abstract will nearly always be read along with the title, so do not repeat or rephrase the title. It will likely be read without the rest of the document, however, so make it complete enough to stand on its own.
- Your readers expect you to summarize your conclusions as well as your purpose, methods, and main findings. Emphasize the different points in proportion to the emphasis they receive in the body of the document.
- Do not refer in the abstract to information that is not in the document.
- Avoid using I or we, but [choose active verbs instead of passive](#) when possible (*the study tested* rather than *it was tested by the study*).
- Avoid if possible avoid trade names, acronyms, abbreviations, or symbols. You would need to explain them, and that takes too much room.
- Use key words from the document. (For published work, the abstract is "mined" for the words used to index the material--thus making it more likely someone will cite your article.)

## Application Letters and Résumés

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Your application letter and résumé may be the most important documents you write during your time at university -- and being able to write good applications will keep on being important during your working life. Here's some advice on starting out well.

Employers say they want to hire people who can communicate clearly, handle personal interactions, and analyse complex situations. Use your application package to demonstrate these qualities.

- **Keep the reader's interests in mind.** Your message is "you need me," not just "I want a job." Know enough about the organization or company to recognize what readers will be looking for. Then the focus of your documents will be where you fit and what you can contribute. This principle will also determine your choice of emphasis and even your wording (not "I have had four years experience" but "My experience will help me do X").
- **Balance facts and claims.** Your documents will be boring and meaningless if they're just bare lists of facts. They will be empty and unbelievable if they are just grand claims about yourself. Use each of the two or three paragraphs in the body of your letter to make a few key interpretive statements ("I enjoy selling aggressively"). Back up each one with some examples (e.g. "achieved highest sales figure of 10 employees for first quarter of 1999"). Mention that the résumé gives further specifications and make sure that it does.
- **Write concisely.** There's no space available for word-spinning. Prune your style by following any good writing guide or the U of T file on [Wordiness](#).

### Specific Points about the Application Letter

1. Write a letter for each application, tailored for the specific situation. Even if the ad calls only for a résumé, send a letter anyway. The letter makes a first impression, and it can direct the reader to notice key points of the résumé.
2. Use standard letter format, with internal addresses (spell names correctly!) and salutations. Use specific names or at least position titles whenever possible (call the company or check its Website). Avoid the dated "Dear Sir and Madam." "To whom it may concern" is weak. You can use an "Attention" line or a "Subject" line instead of a salutation if you have to.
3. Most application letters for entry-level jobs are one page in length--a substantial page rather than a skimpy one.
4. Start strong and clear. For an advertised position, name the job and say where you saw the ad. For a speculative letter, name a specific function you can offer and relate it to something you know about the organization.
5. Use paragraph structure to lead your reader from one interpretive point to another. Refer to specific information in terms of examples for the points you're making, and mention that your résumé gives further evidence.
6. End strongly by requesting an interview. It is now standard to say that you will call soon to set a time. Phrases like "thank you for your time" are unnecessary.

### Specific Points about the Résumé

(in academic life sometimes called *curriculum vitae* or *c.v.*)

1. Have more than one on hand, emphasizing different aspects of your qualifications or aims. Then you can update and revise them quickly when opportunities arise.
2. Make them easy to read by using headings, point form, and lots of white space. Look at a few current books of advice to see the range of page formats available. Create one that suits your situation rather than following a standard one rigidly.

Beware of using a fancy page design from a software package--too many others will also use the same one.

3. The basic choice is between the **traditional chronological** organization (with the main sections Education and Experience) and the **functional** one (where sections name types of experience or qualities of character). You can get some of the benefits of both by creating a one- or two-line introductory section called *Profile* or *Objective* to sum up your main unifying point. You may also use *Achievement* subsections to emphasize your most important qualifications. These may include a horizontal list of keywords in noun form to serve in electronic scanning for information.
4. List facts in reverse chronological order, with the most recent ones first. Shorten some lists by combining related entries (e.g. part-time jobs). In general, omit details of high-school achievements. You also don't have to include personal details or full information for references. But don't try to save space by relying on acronyms (even for degrees): they aren't always recognizable by readers or electronic searches.

## **Selected Reference Material on Application-Writing**

See the Career Centre library for a selection of current books of advice. Public libraries and bookstores also stock a great deal of material. Remember, though, that fashions change quickly and that little published material is Canadian. Web sites may be of more use, since they are usually kept updated, and may be closer to your situation.

### **BOOKS (IN U OF T LIBRARIES AND THE CAREER CENTRE)**

- *Open Doors: A Guide to Powerful Resumes and Covering Letters* (booklet for sale, Career Centre)
- Bolles, *What Colour is Your Parachute*: on analysing your choices and creating job-search strategies
- Brusaw et al, eds. *The Business Writer's Handbook*: shows the conventions of business writing, including letter and résumé format
- Munschauer, *Jobs for English Majors and Other Smart People*

### **RELEVANT WEB SITES**

- Visit the Web site for the [U. of T. Career Centre](#): it gives current information about services and resources, including résumé workshops and drop-in clinics
- The [Waterloo University Job Search](#) site sets out thorough and sensible advice (with chances to practise) for the whole process of research and writing
- Lots of useful advice about writing application documents is available at the [Purdue University Online Writing Lab](#).
- And an [Ohio State](#) site on Job Hunting provides a set of links to useful online resources.

- [Globe Careers](#) gives articles, advice, and Canadian job ads; also places to post (and update) electronic résumés and for insight into the working world, Dilbert cartoons