HOW TO WRITE A

# Research Paper

O, YOU HAVE TO WRITE A research (or term) paper, but you aren't exactly sure where to begin. Research papers can be exciting and interesting to write, but they can also be intimidating and daunting, especially if it is your first one.

Let's start at the beginning. You need to select a subject area and define your topic. If you then take each step in turn, the process will be much more manageable. There will also be times when you will miss or need to repeat a step, but we will talk more about that later.

The method discussed in this guide will work best if you have given yourself plenty of time. If you have waited until the last minute, your options will be more limited, but you may still benefit from using this guide.

The research paper, also called a term paper, should contain a **thesis statement**, or **hypothesis**, which explains to the reader the overall position or point of your argument, and the ways in which you plan to advance your argument and persuade the reader.

#### Follow these steps to complete your paper:

#### Select a Topic

You will most likely be given a broad subject by your instructor. This subject will typically have something to do with the course material you are studying. A topic is derived from the subject but differs from it in specific ways.

#### **Narrow the Topic**

While this may seem obvious, it is a very important step. You need to make sure that the topic is not so narrow that you only have a few words to say about it. You also do not want it to be so broad that you attempt to write a multivolume encyclopaedia.

#### **Develop a Thesis Statement**

The thesis statement is what makes the research paper a research paper. This one statement is a crucial element in the success or failure of your project. It serves as a preview for the paper and also communicates to the reader what will be proved or disproved.

#### **Gather Resources**

This is the "research" part of your paper. You want to allow plenty of time to gather resources since this is a process that may take you in many directions. Think of this step as a process and not an event. You will probably not find everything you need in just one trip to the library, nor will you find everything on the Internet. As you conduct your research, you will learn more about your topic and be directed toward even more resources.

#### Read, Analyze, Record

Not only do you have to gather the resources; you will also have to read them, analyze them, and take notes on points that you may want to use to support your thesis. This is the information that you will use to build your outline and write the draft and final paper.

#### **Create an Outline**

After gathering resources and drafting a working thesis, it is time to create an outline of your paper. This will help you refine the thesis and your arguments. An outline is essentially a road map from which you write your paper.

#### Write a First Draft

This is a crucial step. As with the outline, a draft will give you an idea of the materials you lack and how much additional information you need. After writing your draft, you may find that your topic is too broad. For example, you may write ten pages and only cover your first two points. Don't worry if your writing isn't perfect yet. Remember, this is only a draft.

#### **Gather Additional Information**

While not always necessary, this is the point in your paper where you look for very specific information to make some of your arguments stronger. For example, you may find that adding a statistic, map, picture, or graph will support your argument. You may also find that you cannot find specific information to support one of your arguments, and might discard it in favor of one for which you have ample supporting material.

#### **Revise the Draft**

At this point, you will make editorial changes and insert new material that you have gathered. You may also find that you need to eliminate items for which you have not found supporting documentation. It is often a good idea to let your draft "sit" for a few days between readings. This allows you to have some perspective on what you have written. What seemed like a brilliant concept at midnight on Monday may seem shallow and silly in the clear light of day on Wednesday. You should always review your work before handing it in.

#### **Cite Your Sources**

Give credit where credit is due. This means that if you have quoted directly from a book or paraphrased an idea you must give the original author credit. Not doing so is called plagiarism. You will also want to make sure that your citations conform to the standards required by your instructor.

#### Proofread, Edit, and Revise

This is the final stage of the process. Before turning in your paper, make sure that you have "dotted all the i's and crossed all the t's."

Although we have described these steps in a linear fashion, you may not always follow them that way. It is possible that you will gather some sources before you choose the topic, or that you will write an outline and then go back and revise the thesis. Just remember that writing is a process and that these are only guidelines.

#### **Websites of Interest**

We have identified Web sites that provide additional information about writing research papers.

References

# SELECTING A TOPIC: HOW TO CHOOSE WISELY

Choosing your topic is a very important step in the research process. Without a well-defined topic, it will be difficult to construct a thesis statement, gather sources, write an outline, or complete a draft.

In most cases you will be given a subject, but this is not a topic. What's the difference? Subjects are typically broad and general. Some examples of subjects are **recycling**, **immigrant history**, **Shakespeare's plays**, or **modern art**. It would be rather hard to write papers (of reasonable length) on such broad subjects.

A topic is related to the subject but is quite specific. Topics will ask a question, show a cause and effect, or make a comparison (*Rozakis*, 1999). The following are some examples of topics:

Recycling—What impact do recycling programs have in urban environments?

Immigrant History—How does the immigrant experience in 2000 differ from the immigrant experience in 1900?

Shakespeare—How do the women characters in Shakespeare's plays reflect the culture of the time period?

Modern Art—Is the quality of a work of modern art, as judged by art critics, related to the degree of life-adjustment difficulties of the artist?

As you can see in the above examples, the topics ask specific questions. Such questions—and their answers—form the basis of the **thesis statement**.

Sometimes you will be given a specific topic by your instructor. In such cases, you would not use this method to narrow down your topic from a broader subject.

So how does one make the leap from a broad subject to a specific topic? There are many different ways to make such a transition, and no single best approach. Perhaps most important is to select a topic that's interesting or meaningful to you. Over the course of the semester or term, you will spend a lot of time gathering and reading materials and writing your paper. The entire process will be more enjoyable and productive if you actually like and value your topic.

# Here are some specific ideas for selecting topics:

#### Look at course notes

Read back over your notes and texts from class. Was there something mentioned in class or your readings that you found really interesting?

#### Use a General Encyclopaedia

Use an encyclopaedia like *Encyclopaedia Britannica* to look up the general subject. Read the entry for the subject and explore some of the related entries. Not only will this give you a better understanding of the subject, but it also might spark some thoughts about possible topics. Use the suggested readings and bibliographies at the end of the encyclopaedia articles to find additional sources of information. These resources can be the beginning of the resource gathering process.

# Use a Specialized Encyclopaedia

There are encyclopaedias on many specialized subjects. A librarian can help you locate one in your subject area. Thumbing through the entries may help you identify some areas of interest. Again, follow the references to related articles, and use the suggested readings and bibliographies to help you locate additional resources.

#### **Brainstorming**

Brainstorming is a great way to discover a topic. At the top of the paper write down the general subject. Then spend a few minutes writing down ideas about the subject. Think about the types of questions the subject brings to mind. You should have a good start on a list of topics by the end of the time period.

# Rely on a Friend

Sometimes it is difficult to think of a topic by yourself. Even when you do identify a topic, you may feel that although it is personally interesting, you cannot imagine that others would find it so. Friends can help you. Ask a friend to listen to your ideas and provide you with constructive criticism. Conversely, you could ask your friend to look at what you may consider to be a "boring" topic and tell you what they would write about instead. Sometimes a fresh perspective is all it takes to help you decide; you might even find that your topic isn't that boring!

# **Explore Any Special Resources Held by Your Library**

Libraries often maintain special collections on topics of interest (special collections can be based on the preferences of previous librarians, or individuals who made donations to the library).

Often, such resources are grouped together. You may be able to browse through such special collections for interesting ideas or questions to help you with your topic. An advantage of this approach is that many of the resources that you might gather to complete the paper may already be part of the special collection.

#### **Participate in Online Discussion Groups**

Online discussion groups on subjects may provide participants the opportunity to "propose" various topics of special interest. Other participants in the group can then provide instant feedback. There are also a number of library resources that you can use. You can find these resources in most public, college, and university libraries; ask a reference librarian for help locating them. Some suggested resources follow:

# 10,000 Ideas for Term Papers, Projects, Reports and Speeches:

Intriguing, Original Research Topics for Every Student's Needs—If you have absolutely no idea where to start or are having trouble narrowing down your topic, this book can be quite helpful.

**CQ Researcher**—This title (formerly called *Editorial Research Reports*) provides an extensive overview of a topic in each of its weekly issues. There is also a cumulative index to the entire series. Topics found in this source typically include current "hot topics" that may have legislation pending such as gun control, the death penalty, gambling, and children's rights.

**Editorials on File**—A great place to check to see if your topic might be arguable. This source reproduces editorials from over 150 newspapers from North America (United States and Canada).

**Issues and Controversies on File**—Each weekly magazine covers several contemporary issues. Again, these are "hot topics" or things you may hear about in the news. Another great source to use if your topic is arguable (controversies almost always have two sides to them).

When choosing your topic, you will also want to make sure that it fits into the scope of your assignment. If in doubt, always check with your instructor. He or she can provide you with advice throughout the research process.

Finally, make certain that your topic is "arguable." Remember that your ability to argue for your thesis is what makes your research paper a research paper. You might consider the way your reader (in most cases, your instructor) is likely to look at and react to things. Of course, it all depends on your goal for the paper.

# NARROWING YOUR TOPIC: HOW TO GET AND REMAIN FOCUSED

YOU HAVE ALREADY begun to sculpt a research topic from a broader subject, and will recall that the topic must be narrower than the subject. However, it must not become too narrow. If your topic becomes too restricted, you might end up with a simple—and unarguable—statement of fact, such as "Albert Einstein invented the theory of relativity." This will not satisfy the requirements of a research paper, in which you must argue your thesis.

# Here are some additional questions to think about when you are narrowing your topic:

#### How much time do you have?

The more time you have, the more sophisticated your research topic can be. If you are pressed for time and the paper you want to write on is a topic not often written about, or if your library's collection does not include resources in this area, you may have problems. In such situations, you would be wise to choose a simpler topic given the nature of your resources.

# How long is your paper?

Longer papers support broader topics. Make the breadth of the topic appropriate to its length. You will have problems writing a ten-page paper if your topic is too narrowly focused. Conversely, you will have problems adequately addressing all the points of a broader topic if your paper is too short.

Often, your instructor will require a specific length for the paper. If so, you should narrow or broaden your topic accordingly.

# What types of resources do you need to use?

The types of resources you are required to use for the assignment may help you choose your topic. If you must use published journal articles in your final paper, you probably don't want to write about a person who has only recently risen to public prominence, such as the major league pitcher who pitched his first game last night. Such a topic would not be well-documented by older journal articles, and it would be difficult for you to find enough material to support your thesis statement. However, if you are asked to include newspaper stories or recent news archives for your project, you would find plenty of material to support this choice of topic.

#### THE THESIS STATEMENT: DEVELOPING THE "BACKBONE" OF THE RESEARCH PAPER

A S DEFINED IN THE introduction, the thesis statement is what makes a research paper a research paper. A **thesis** is defined by *Merriam-Webster's Collegiate Dictionary* as "a proposition to be proved." It is important that this statement accurately reflects both the purpose and direction of the paper. A paper without a fully developed thesis statement, or one that is too narrow or broad in scope, will not be as successful as one with a strong and well-thought-out statement.

# How do you write a thesis statement? Consider these guidelines:

- A thesis is usually one sentence.
- The thesis makes a claim about your topic. Remember that you must be able to support this claim. A thesis statement is where you take a position regarding your topic; it is not a mere statement of fact.
- A well developed thesis statement "asks to have more said about it. It demands some proof" [Paradigm, 2000].

# The following are some examples of topics turned into thesis statements:

Urban recycling programs have a positive effect on a community by reducing the costs associated with waste management.

Children who watch too much television are less likely to have well-developed social skills.

You should know that the first statement that you write will not necessarily be the one that you use in your final paper. As you gather resources you may find that your statement is too narrow or too broad. You may also find that the question you want to answer is unanswerable. This does not necessarily mean that you can't write about it; it simply means that you need to be sure that you can make a strong case for or against the statement before keeping it as a topic.

The thesis statement you create is a unique topic and as such there may not be a single source to definitively support or dispute your statement. As you begin crafting your outline, you will discover other places in your paper where you will insert evidence to support your thesis.

#### **GATHER RESOURCES**

THIS IS THE "research" part of your paper. You should allow plenty of time to gather resources, as this exercise will take you in many directions. Think of resource gathering as a process and not a single event. You will probably not find everything you need in one trip to the library, nor are you likely to find everything in a single session on the Internet. As you conduct your research, you will learn more about your topic and discover even more resources you can use. Your teacher might ask that you use both **primary** and **secondary** sources.

Primary sources are firsthand materials, such as interviews, diaries, maps, graphs, statistics, charts, and other original documents. The important thing to remember about primary sources is that they are not interpretations or analyses of a subject; rather, they are raw data, direct personal observations, experiments, or transcripts.

Secondary sources are writings about primary sources, or about information extracted from them. They may take the form of opinions or summaries.

For example, the Constitution is a primary source.

An Encyclopædia Britannica article about the Constitution is a secondary source.

The use of both primary and secondary sources will make your research paper a well-rounded and complete investigation of the topic. However, use caution when choosing your sources. Don't believe everything you read, especially if it's on the Web. Remember that almost anyone can put up a Web site. It is important to evaluate the source of your information. If you're not sure of how reputable your source is, look elsewhere for more information, or verify it through more reputable sources.

#### CREATING AN OUTLINE

PON CRAFTING your thesis statement, you have defined the focus of your report. You also need to organize—or outline—your thoughts clearly so that the rest of your paper clearly represents the main point(s) of your argument. An outline is the framework for your paper. You will use it—and the sources you have gathered—to construct a persuasive argument.

There are lots of ways to create outlines. The easiest way is to begin by writing your thesis statement at the top of a page and to focus your outline around this statement. Here's an example:

Thesis: Children who watch too much television are less able to interact with others in a socially acceptable manner.

In order to prove the statement true or false, you will need to break it apart into smaller arguments, which we shall call the major topics of the paper. To help determine the major topics, write down at least three to four reasons you believe your thesis statement to be true or false (*Rozakis*, 1999). You may use the notes you have taken during the resource gathering phase, as well as supporting items you know to be true. If you have taken notes on cards, it is usually helpful to sort the notes into groups.

**Example:** Children who watch violent cartoons are more likely to try to solve problems with violence. Because these children don't interact with others, they are less likely to understand the concept of sharing.

For each of your major topics, think of two to three supporting statements. These statements will come from your research notes and will become the major focus of each paragraph. These supporting statements are designated with capital letters in the outline.

**Example:** Children who watch violent cartoons are more likely to try to solve problems through violence.

- A. Can't distinguish between reality and fiction
- B. Don't learn other ways of dealing with conflict

Finally, you will want to learn from your research what ideas support each of these supporting statements. These documentary points are indicated by numbers followed by a period. Even more specific points under these are indicated with lower case letters followed by a period.

Example: Children who watch violent cartoons are more likely to try to solve problemswith violence.

- A. Can't distinguish between reality and fiction
- B. Believe that the characters are real

Like everything else in this process, the outline is not written in stone. You may find that you need to rearrange some of the points to make a stronger case, or add new ones. The outline will also graphically illustrate where you need more supporting evidence, which will help focus the resource gathering process.

**Note:** Some excellent writers claim not to need the outlining step, preferring instead to launch right into drafting the paper. Although this may well be true for some writers, most writers benefit from the creation of the outline. Even if you feel very qualified to write your paper, you will benefit from jotting down a structure and your major points.

#### PROOFREAD, EDIT, AND REVISE: THE HOME STRETCH

YOU HAVE MADE IT to the final step: congratulations! While you may be ready to finish this project, this stage is just as important as the previous steps.

While you need to provide good ideas and a thorough analysis in your research report, it is equally important that you present yourself well on paper. You should check your paper for mistakes in spelling and grammar, and to ensure that your ideas flow well and can be understood. The following are a few "tricks of the trade" that you may want to try:

#### **Gather Additional Information**

While this step is not always necessary, this is the stage when you can look for very specific information to make some of your report's arguments stronger. For example, you may find that adding a statistic, map, picture, or graph will make your argument stronger. You may also find that you have failed to find information to support one of your arguments.

#### **Distance Yourself from the Product**

If you can, put your draft away for a couple of days before beginning the final edit. The distance will allow you to be more objective for your final read.

# Ask Someone Impartial to Read Your Report

Have someone else read your paper for clarity and to proof it for grammatical/spelling errors. An author is often not the best person to edit his or her own work, and some people are simply less skilled in catching such errors. You can ask a friend to help you, and your school may offer services along these lines (e.g., a writing center). These services are staffed with people trained to help edit research papers.

#### **Read Out Loud**

Even if you are not doing an oral report, it is a good idea to read the final paper aloud. This will help you catch any problems with the flow of the final product. Reading aloud makes these problems more obvious, as you will stumble over awkward sentences, or realize where information is unclear.

#### **Use Spell Check and Grammar Check**

These tools are part of most word processing programs; use them. There are essentially no good excuses for spelling errors in papers. Remember, however, that these programs will not catch the use of incorrect words (like **an** instead of **and**, or **their** instead of **there**), so don't rely solely on mechanical spell and grammar checks.

# WEB SITES OF INTEREST

Writing Up Research: An Online Resource, from the Center for Language and Educational Technology, at the Asian Institute of Technology. This is an excellent resource for writing research papers.

http://www.clet.ait.ac.th/el21open.htm

Writing a Research Paper, from the Counseling Center at George Mason University http://www.gmu.edu/departments/csdc/paper.html

Writing a Research Paper, from the University of Alberta Libraries http://www.library.ualberta.ca/library\_html/help/pathfinders/respaper.html

Your Research Paper, from the University Library, University of California, Santa Cruz.

http://scilibx.ucsc.edu/library/ref/instruction/refguides/research.html

A Student's Guide to Research with the WWW http://www.slu.edu/departments/english/research/

A Guide for Writing Research Papers based on MLA Documentation http://webster.commnet.edu/mla.htm

Merriam Webster Online http://merriam-webster.com/

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