NOTICE
Warning Concerning Copyright Restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "***used for any purpose other than private study, scholarship, or research.***" If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

New Jersey Institute of Technology (NJIT) library reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

Fair use Guideline (Section § 107)

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include –

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

Printing Note: If you do not wish to print this page, then select "Pages from: first page # to: last page #" on the print dialog screen.

2

Taking Charge

You may be saying to yourself, "I've never been good at this research thing. In fact, I don't think I have a good research project in me."

My response is, "Of course you don't. A good research project is out there, not inside you. What you have to do is get out there, find the data, work with it, and use it to make a difference."

At this point, be aware that we are talking about a certain kind of research here, not the social scientific or scientific research that involves experiments, but informational research such as you will find in the humanities or in literature reviews in the social sciences and sciences. This kind of research is all about data and information, its discovery and use.

Now, before you run off to a dark alley frequented by black market sellers of data, let me offer you a safer alternative. What follows is a list of basic things that you need to have working for you in order to turn your anxiety into a brilliant project, leading to an excellent product.

- You need an intense desire to do a brilliant project, not just an average one. By definition, most people can do an average project.
- You need to take your time and plan your research as a *strategy* rather than as a mad dash through libraries and databases. Libraries know when you have reached the panic stage. The books close ranks and refuse to be found. Titles in the catalog trade places so that you can't locate them. The smell of musty books renders you numb and silly. Databases can do even worse things to you (don't ask). *Never panic.* Take it easy. Work out a plan and show that data who's in charge here.
- You need to become a friend to structure. If you're the kind of person who might follow your schedule if you could remember where you

put it, or someone who views a library overdue fine as a reasonable price to pay for never having to think about a due date, research is going to be a battle for you. Structure and organization, from the beginning of the process all the way to its triumphant end, is crucial, no matter how much pain it will cost you to change your ways.

➢ You need to develop *lateral thinking*. Lateral thinking is akin to what happens in a football game: The quarterback has no openings at all. If he runs with the ball, he'll be flattened. So, instead of moving forward, he throws the ball sideways to another player who can move it forward. These are the steps:

- Recognize that your advance along one line is blocked.
- Abandon your approach and look for another that is completely different.
- Run with your new approach and make it work (or try yet another).

It's like the old story of the truck that got stuck in a highway underpass. No towing vehicle of any kind could get it out, and so the workers were left with the option of dismantling an expensive truck or tearing down an even more expensive underpass until ...

... until the light bulb went on and some bright lateral thinker suggested letting the air out of the truck's tires to *lower* it. Lateral thinking works beyond the obvious, in the realm of the creative.

Nurture this lateral thinking gift within you. It will help greatly in that moment when all your cherished strategies have failed you and you still don't have the information you need.

Here's an example: Suppose you were doing research on the trials of Galileo and discovered that every book with the texts of the verdicts against him was already signed out. Rather than thinking that the library has let you down and you are doomed to wander the streets as a pathetic warning to others, think beyond the library (a lateral) and check to see if someone has posted the verdict transcripts on the Internet (they have: **http://www.law.umkc.edu/faculty/projects/ftrials/galileo/galileo.html**). That's the sort of thinking that can save you from the disaster which often lurks, ready to bite the unsuspecting.

2.1 Wrestling with a Topic

"I'm writing a history paper on the Lollards. I don't know who they were (and I'm finding it hard to care). When I'm done—if I can find anything in this confusing yet undersized library—I will have a research paper describing the Lollards. It will stress description of the Lollards. Its theme will be 'Describing the Lollards.' The point I will seek to make is that the Lollards can indeed be described."

Exciting, isn't it? Don't those old Lollards just thrill you to pieces? Not really. It's just another research project, as tedious as the last one you did. *Fact is, it isn't even research.*

"What?" you say. "Not research? I searched the library catalog and journal databases and even the Internet, and I've got a ton of stuff here. Don't tell me I'm not doing research."

All right, I won't. Go ahead and write your paper and describe your Lollards. Turn it in and wait for your professor to read the thing and give you the usual dreary mark. Obviously, you don't like your prof anyway, and that's why you keep doing this too him or her. Professors are no strangers to the kinds of boredom you inflict on them. In fact they're almost used to the tedious task of marking your essays. You bore the professor, and the professor pays you back by giving you a C. Any illusion that you actually did research will be dead by the time you get the essay back.

Not wanting to be harsh without providing some help, let me ask: What is genuine research if it's not what you've been passing off? Let's begin by looking at what it is not.

2.2 Elements of False Research

- False research assumes that the task is merely to gather data and synthesize it. Thus the typical student "research" project involves amassing data, reading and absorbing it, then regurgitating it back onto a fresh piece of paper (sorry for the disgusting image).
- False research deals in generalities and surveys. It loves a superficial look at a big topic, and it abhors depth and analysis.
- False research asks no analytical questions and makes no pretense of advancing knowledge. It's happy just to report on what has already been done, to summarize the past.

- False research is so boring that you should be surprised it ever gets completed, let alone foisted on your longsuffering professor.

2.3 The Key to Genuine Research

What's the point of doing research, then? A flip response might be that a professor or employer told you to do a research project, and you're just following orders. But that's not the answer I'm looking for.

Consider this dilemma as an example: A few years ago you bought a car that was a disaster. Its maker should have been executed for delusions of adequacy. While most cars have water dripping out of the exhaust pipe, yours had lemonade. You spent so much time pushing it that you were able to qualify for a weightlifting competition at the next Olympics. Your mechanic added a new wing onto his house with the money you spent keeping it on the road. Now you're due for a new vehicle, and you are not about to be stung again. So what do you do?

Research!!

You pick up every consumer reporting and car testing book or magazine you can find. You talk to your friends. You go on the Internet. Why? Because you have a burning question to answer, and somewhere out there is the data you need to answer it.

This is what research is all about. The key to genuine research is *a good question.* Without a question, nothing you are doing can be called research. Just as your search through car books is driven by the query, "Which car should I buy this time?" so any research project worthy of its name is driven by a single research question.

What constitutes a good question? Here the situation becomes more complex, because you need to begin rethinking the whole research process. Later in this chapter, we will consider the actual strategies involved in getting a topic ready for research, but for now we need an overview of the basic principles.

The first of these is that most any research topic presented to you needs some work before it is viable enough to use.

Assume, first of all, that the topic is probably too broad to be workable unless you're planning to write a book. A topic like the Lollards or abortion or economic conditions in Russia today is not likely to inspire depth of analysis because you don't have space in ten or twenty pages to deal with anything but

the superficial. You are going to have to focus on a more narrow aspect of the topic so that you can deal with it in depth.

Consider a bathtub with a gallon of water in it as opposed to a bathroom sink with a gallon of water in it. Which is deeper? The sink, because its borders are narrower. The same principle works in a research project—the narrower your focus, the more chance you have of getting some depth into your project.

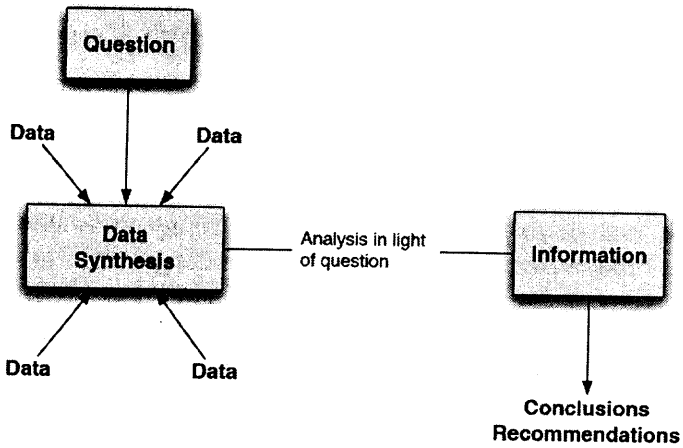
Assume, second, that you are going to have to develop a sound working knowledge of the topic before you're going to know what to do with it. I see a lot of students floundering for hours at the beginning of a project because they really don't understand the basics of the subject matter they are dealing with.

Assume, third, that you may have to negotiate with the one who gave you the project. You need to know that what you propose is actually going to fly with the person ultimately responsible for your fate. But cheer up—professors are generally thrilled by any tiny evidence of creativity in their students. Go to your professor and ask politely, "Would you mind if I pursued *this* issue raised by the Lollards? It looks really interesting." Your professor's heart will turn to mush and he or she will say quietly, "Yes, all right," while inside he or she is shouting, "A new approach! I'm getting a new approach!"

Caution: Don't ever say, "May I write on the Albigenses instead?" This signals the professor that you don't like the Lollards, and you most certainly will end up having to write on the Lollards anyway.

2.4 A Model for Research

What, then, is research all about? Here's a model:



Explanation?

- You begin with a question.
- You collect data.
- You synthesize it (put it together in some coherent form).
- You analyze it in light of the question (figuring out how each piece of data could be used to answer the question).
- The analysis turns data into to information (processed data that is ready to be used to answer the question).
- You come up with conclusions and recommendations.

The key to the whole thing is that *you need to move beyond merely gathering data, reorganizing it (data synthesis) and reporting on what you read.* When a question is injected into the mix, the data becomes more than an end in itself and turns into the raw material needed to answer the question. The result is analysis that turns data into information that can then be used to reach an answer. Looks easy, doesn't it? Maybe it doesn't yet, but we are about to embark on a journey that will make things much clearer.

For a tutorial on the research process, go to **http://www.acts.twu.ca/LBR/ResearchModel/ResearchModel.swf**

2.5 Getting Started in Research

2.5.1 Getting a Working Knowledge through Reference Sources

Before you go off in all directions at once (like a draw-and-quarter competition at the local jousting match), get a grip on yourself. As I librarian, I see the same painful experience repeated day after day—students walking fearfully into our book stacks area, then stopping, frozen to the ground.

I know what's buzzing through their battered minds: "I'm here, I'm actually **here** in the library, about to start researching my topic, and I don't have a *clue* **what** to do. Time has stopped, and people are staring at me. Why can't I move **my** limbs? Why is my head numb? Maybe I'll die here, rooted to the floor, and **they'll** bronze me as a monument to the unknown student."

Take heart—it doesn't have to be like this. Let me give you the first step you need to take in any research project, so that you break free from bondage. It's simple. *Get a working knowledge of your topic.*

Right, so what's a working knowledge? Here's a basic definition: *You have a working knowledge of a topic when you can talk about it for one minute without repeating yourself.*

To start your research, all you need to do is acquire one minute's knowledge.

"One minute?" you say. "I've been told I have to present a fifteen page research paper with a dozen footnotes including appropriate journal references (whatever they are). Why talk to me about one minute of working knowledge?" I do so for the same reason that you take a flashlight with you to avoid stumbling around when it's dark. A working knowledge gives you the basics of a topic and enough light so that you won't hurt yourself as you move on into more complicated territory. It isn't complete knowledge, but it's enough to tell you what the topic entails, what its boundaries are, even what some of its controversies, mysteries and dangers might be.

So where do you get a working knowledge? You could simply go on the Internet, where virtually anything is explained by some site or other. But, if you don't know much about the topic to begin with, the Net may be a dubious source. How will you be able to tell that the information is reliable? (We'll cover that issue in Chapter Six).

You would do better to investigate authoritative *reference sources* first. All academic libraries have recognized reference tools that provide concise and authoritative information on virtually any topic you might think of. Reference books will generally appear in the form of dictionaries or encyclopedias on general or specific topics. As well, handbooks, atlases—in fact, any tool that involves looking up brief information—may be found in a reference collection.

Increasingly, reference sources are also appearing in electronic form, allowing for greater flexibility in searching. But you (or your library) will need to subscribe with real money to the best of these. The best reference sources are not available without cost on the Internet, though some older or lite versions of reference tools are appearing there for free. Your most useful venue for good reference information is still a library.

So you're in a library and wondering how to find a reference book that will give you information on marriage customs of the Kurdish people. You could wander the shelves of the reference collection, but there's an easier way to find what you want. *Think of the broad subject within which you topic lies.* In this case, you are looking at customs of a particular culture. Thus you could look up a subject heading in your library's catalog like MANNERS AND CUSTOMS—

ENCYCLOPEDIAS to find a reference source like *Worldmark Encyclopedia of Cultures and Daily Life.* Then just look up "Kurds."

Let's try another example of the sort of material you're looking for in a working knowledge. You've been longing to find out who the Lollards were (or are), admit it. Let me give you a clue—they were a group of religious people who flourished in the late Middle Ages and early Reformation period. What sort of a reference source would you use for Lollards? How about a dictionary of church history? If you check into a couple of such dictionaries, following the famous Five Ws of inquiry, you might discover the following:

Who?

The Lollards were followers of John Wycliffe; more generally, the term was used of any serious critic of the English church in the late Middle Ages. Key figures in the movement were Nicholas of Hereford, William Swinderby, and John Purvey.

What?

Their teachings, summed up by the Twelve Conclusions of 1395, included personal faith, divine election, and the Bible as the sole authority in religion. They demanded that every person have the individual right to read and interpret the Bible.

Where?

The movement existed primarily in England and Scotland.

When?

It began in the 1380s (AD) and went underground after 1431 due to persecution. The movement declined in the mid-1400s but revived about 1490. It figured prominently in the congregational dissent of the seventeenth century and the rise of the Hussites in Bohemia.

Why?

The Lollards claimed to be a reaction to the control over human life and spirituality that was exercised by the Church of the time.

My two reference sources (*Oxford Dictionary of the Christian Church* and *New International Dictionary of the Christian Church)* also yielded a combined bibliography of over 15 sources on the Lollards.

Have I convinced you of the need for a working knowledge? If not, I wish you lots of luck in your research—you're going to need it. Unless you start with a working knowledge you will inevitably find yourself sinking the moment you reach deeper waters.

2.5.2 Excursus: Wikipedia, the Professor's Dilemma

A lot of students have discovered Wikipedia, the free online encyclopedia with an awesome range of articles on every conceivable topic (**http://en.wikipedia.org/wiki/Main_Page**).

Technically speaking, the Wikipedia phenomenon should have been a disaster. Normally encyclopedias are created by an editor who assigns known experts in their fields to write articles that are then carefully studied for accuracy and clarity. Wikipedia's articles are written by the great unwashed—the public, you and me, any Joe or Jane Blow who wants to add an entry. Sure, there are safeguards to help maintain a measure of objectivity and preserve a structure for what is included in a good article. But not only can anyone write an article, anyone can edit an article too. In fact, the edits that actually stick (without being changed back by one of the volunteer watchdogs that guard articles from being vandalized) are those for which a large number of people agree that the change is needed.

Stephen Colbert, the TV satirist, has coined the term "Wikiality." According to Wikipedia: "Colbert defined wikiality as 'truth by consensus' (rather than fact), modeled after the approval-by-consensus format of Wikipedia." (For more fun criticism see the Wikipedia article "Wikipedia in culture.") Colbert, on one of his shows, called on all his viewers to test his "truth by consensus" accusation by changing the entry on Elephants to say that the population of African elephants had tripled in the past six months (it hadn't). Wikipedia had to restrict editing on elephant material due to the large numbers of changes that were made.

All kidding aside, is Wikipedia good or bad? Tough question to answer. The information in it is often amazingly reliable, but there are also glaring errors. Many professors have simply opted for the easiest road and have banned Wikipedia entries from bibliographies. On the other hand, the journal *Nature* did a study that showed the mistakes in Wikipedia to be only a few more than those in *Encyclopedia Britannica. Britannica* answered with an angry rebuttal claiming poor methodology, but *Nature* has stuck to is original findings. (*Nature* 438, no. 7070 (December 15, 2005): 900-901; **http://corporate.britannica.com/britannica_nature_response.pdf**).

So, to use or not to use Wikipedia? I am more on the side of "use with discernment as long as your professor allows it (which is often not the case)." If your prof bans it, then you have your answer. If not, recognize that you will likely need to compare the information you find in it with information from sources produced through the usual publishing methods. Keep your wits about you, because you are the gatekeeper.

Above all, check with your professor before you ever include a Wikipedia article in a bibliography.

[For a more in-depth discussion of Wikipedia, see my InfoLitLand column in the March/April 2008 issue of *Online Magazine*].

2.6 Finding a Good Question

Research is not research until you have focused it around a solid research question that addresses a problem or issue. But how do you come up with a question that is going to work?

2.6.1 Narrow your Topic to one aspect. A big reason why research can fail is that the researcher is trying to conquer the world with one project. You simply cannot cover everything about the topic of teen suicide or abortion or the causes of World War One or why the moon *isn't* made of green cheese. You have to choose an aspect that is distinct enough that you can really work with it.

2.6.2 Identify Controversies or Questions related to your narrowed approach. There's no point re-describing what has already been described, since research is not the *gathering* of information but the *use of information to solve a problem*. Information is not an end in itself, but a means to help you solve a problem. To tell me once more who the Lollards were is to do what every reference source on the subject has already done. This is where those excruciatingly boring and superficial "research" papers come from. You must vow never to write another one. Find something worth investigating.

In the case of the Lollards, you might want to focus on one aspect of Lollardy, like the Lollard Knights, and discover why they did not suffer the same persecution as other Lollards (which will lead to the research question). The broader your focus, the more shallow your paper. You want depth. Avoid questions that survey large amounts of data. The resulting papers will never dwell on any one thing for more than a few lines, and they will have bibliographies that cover a wide variety of issues. Instead of looking at all the causes of

WWI, find a crucial cause and analyze it. Narrow is good; big sweeping questions breed ugliness.

2.6.3 Thesis Statements

What if, instead of a research question, you have been asked to provide a *thesis statement?* What's the difference? Research questions and thesis statements are actually two sides of the same coin. A research question addresses a problem to be solved. A thesis statement is *a tentative answer* to a research question. It is tentative in that your written research project is going to have to test your thesis and hopefully show it to be correct. Thus, if you research question were:

To what extent should the government have known of the risk of the New York 9/11 disaster before it happened?

your thesis statement could be:

There was sufficient warning of a New York 9/11-type disaster before it happened, so the government should have been well prepared for its occurrence.

or your thesis might be:

Despite the signs of a potential terrorist attack, there is no way that the government could have had sufficient information to be prepared for the New York 9/11 disaster.

For either of these possible thesis statements the onus would be on you to provide convincing evidence to support your thesis (as well as giving due consideration to contradicting evidence).

The thesis statement route does have a tendency to create a bias, so that it's tempting to overlook or minimize evidence that does not support your case. Thus, unless you have been told to provide a thesis statement, using a research question is likely to have you entering the investigation with a more open mind.

2.6.4 Research Questions—the Bad and the Ugly

Some research questions simply won't work. They are doomed to failure and will produce research projects that are walking disasters, if they can walk at all. One way to recognize a good question is to know what the bad and ugly ones

look like, so here are some examples. I am assuming, of course, that these examples will just provide information to use in scorning your classmates, since you, personally, never fall into such traps. [APPENDIX ONE offers you expanded information on the following, along with many more examples]:

1. The Question that Isn't There. Imagine the horror of someone reading your "research" paper and looking desperately but in vain for a question, only to discover that there is none or the question you do have only asks you to compile existing data. What's the purpose of your paper—to tell me something I could have read in any reference book? To tell me once again what everyone knows already? To bore me with your knowledge of trivia?

2. The Fuzzy Question. Sure, there's a question, but it isn't defined or focused enough to make it possible to answer. Asking something like, *Why was Saddam Hussein the way he was?* is no help at all. What way *was* he? Are you talking about his role as dictator of Iraq, his use of chemical weapons, his oil strategy, or just what? Until you clarify your focus, you will find no way to answer your question without simply surveying everything the world knows about him (which would likely depress the life out of you).

3. The Multi-part Question. *You must never let more than one research question intrude into a research project.* The shotgun approach is out. Research identifies *one* question, deals with that question through analytical use of data, and *then quits.* Never *ever* get stuck in the kind of proposal that says, *This paper will deal with*_____. *I will also attempt to* _____ *and to*_____ *and to* _____. Your second, third and fourth questions are loose torpedoes on your own ship. They will sink you because they'll kill your focus. One question per research project is all you need or want.

4. The open-ended question. This is often expressed as, *What are the implications of...* or *What were the results of...* followed by an expected list of possible outcomes. Open-ended questions tend to be troublesome simply because they fragment your conclusion into many conclusions and thus destroy the single focus you needed to seize upon. The way to cure open-endedness is to *close the end.* For example, instead of asking, *What were the implications of the end of WWII?*" you could ask, "*What crucial factors at the end of WWII led to the recovery of the French automobile industry?* Even then the question is somewhat open-ended but at least the focus of the implications is much narrower than it was.

5. The Question that Will Not Fly. Some questions are amazingly inventive, but try to answer questions that the data simply will not answer. Asking: *What is the effect of the growth of the Internet on the prevalence of schizophrenia in the American population?* may look cool, but exactly how would you gather relevant data to answer it? If your question is ambitious, ask yourself whether or not it's possible to find an answer. If not, curb your enthusiasm.

In my experience, the best research questions are *simple* ones that require a good deal of analysis to answer. If you start with a highly complex question, your analysis is going to have to be that much more complex. The ideal is to have a question so simple and clear that you can almost see the goal before you, in your mind's eye, and the path you need to take to get there.

[For more on research questions, including many more examples of both the good and the bad, see APPENDIX ONE.]

2.7 The Preliminary Outline

Chances are, if you're like most people, that you're not in any mood at this point to start thinking about an outline for your project. People who start working on their outline before they've done their first catalog search are either sick or lost souls, because any sensible person knows that you compose your outline AFTER you write your paper.

Wrong.

If you want to spare yourself a ton of grief, start on an outline now. Why? Simply because you need to build yourself as clear a road map as possible in order to do your research efficiently (by "efficiently," I mean that you will save time). A research question may be crucial to give your search a goal, but an outline is crucial to tell you in detail what you need to search for to reach that goal.

What's a preliminary outline? It is simply 3 to 5 points that you need to cover in order to answer the research question. The points may change over time, but you need to start on an outline now.

How do you develop a preliminary outline? Begin with your research question and root your outline in its terminology. Suppose you have the following question: *Why did the US so strongly believe that Saddam Hussein had weapons of mass destruction when the Iraq War of 2003 began?* The question itself gives

clues for a preliminary outline. You need to look at possible evidence that he did have such weapons, evidence that he didn't and the reasons why the US found the evidence that he did so compelling.

Once you have a few basic elements, try to organize them into a rough order. For example:

- The Evidence available at the time that Saddam had weapons of mass destruction
- Evidence available at the time that he did not have had such weapons
- Possible explanation why the US believed he had such weapons
- Conclusion

Your preliminary outline is just that—preliminary. You can change it and develop it at will, or even scrap it and create a new one. But you need to start on your outline as soon as you have a research question, because the outline tells you what you need to cover in order to write the paper that answers your research question.

2.8 How About a Few Good Examples?

2.8.1 "The Thought of Erasmus of Rotterdam"

Your much beloved philosophy professor has assigned you "The Thought of Erasmus of Rotterdam." Having studied a few philosophy dictionaries, you narrow your topic to "The Humanism of Erasmus of Rotterdam." You *could*, at this point, decide to begin your paper with "Erasmus of Rotterdam was born in the year ..." You *could* go on to explain what he taught about humanism and then conclude, "It is clear that Erasmus was an important person who deserves more attention."

This method is called "regurgitating your sources." It establishes a conduit between your books and your writing hand without ever really engaging your brain. It also makes for a very dull paper. Professors fall asleep over dull papers.

On the other hand, you could be analytical. Having read your sources and affixed your working knowledge firmly in your mind, you could engage your brain in finding a research question. How about asking this: *What is the essential difference between the humanism of Erasmus and that of the modern Humanist Manifestos I and II?* This would certainly demand study of Erasmus,

but it would go further. Now your have the makings of an approach that could contribute something fresh and exciting to the topic.

2.8.2 "Homelessness in our Cities"

You are taking a sociology class and are supposed to write a paper on "Homelessness in our Cities." You could regurgitate some statistics, recite a few case studies and conclude, "It is obvious that we need to take action on this issue." Or you might narrow your topic and ask a research question like this one: *Do programs that arrest homeless teens and compel them to accept social worker assistance actually reduce the incidence of teen homelessness in the long run?*

2.8.3 "The Causes of the Ecological Crisis"

For a course on environmental issues, you have been assigned, "The Causes of the Ecological Crisis." You narrow this to focus on the human values in society that can lead to ecological problems. A descriptive paper would string together quotations from current leaders in the debate who are decrying our attitudes of wastefulness and greed. Your conclusion could read, "Thus it is clear that we must change our attitudes." You have narrowed your topic, but you've failed to apply a research question to it. An analytical research paper would go further, perhaps considering the common view that the western Protestant ethic, with its desire for dominion over the earth, is at the heart of the environmental trouble we are in. Your research question could be: *Is Western Protestantism responsible for the environmental crisis?*

2.8.4 "Behaviorism as a Model for Social Engineering"

You have been given a topic which is fairly narrow but still covers a lot of territory. Why not narrow it down to the Behaviorist model of B.F. Skinner? You might now take the easy way and summarize his book *Walden Two*, which is Skinner's model for social engineering (but easy is the way that leads to destruction). Or you could ask how Skinner's model in *Walden Two* might need to be reconsidered if basic human depravity were taken into account (something Skinner seemed blissfully unaware of).

One final note of caution: Always clear your narrowed-down topic and brilliant research question with your professor or supervisor. Disaster could be awaiting you if you don't.

Of course, some of us *like* to flirt with disaster. Do you feel lucky?

2.9 For Further Study

Study Guide

1. What three things do you need to seek if you want to do research well?
2. Name four elements of "false research." Why is each an enemy of true research?
3. Define a "working knowledge" of your topic and explain why it's important to have one.
4. What is a "reference source?"
5. What should we do with Wikipedia?
6. What are the steps to finding a good research question?
7. Formulate a definition for genuine research.
8. Describe the difference between a research question and a thesis statement. Why is the former a safer approach?
9. Describe the following types of bad research questions: The fuzzy question, the multi-part question, the open-ended question, the question that will not fly.

Practice with Research Questions

Go to APPENDIX One and try *A1.2 Practice with Research Questions*

Assignment for a Research Project of Your Own

1. Choose a topic of interest to you.

2. Get basic information about your topic from at least two specialized reference sources (not general encyclopedias but subject specialized reference sources like *Dictionary of Developmental & Educational Psychology*) to provide yourself with a working knowledge of it.

3. Summarize in about half a page what you've learned (your working knowledge), *listing the reference sources you used.* [NOTE: If you could not find a suitable reference source, use an introductory chapter from a recent book. If you can find neither, seek out a reference source on the WWW, but be sure it has authority. **Established reference books either in print or in electronic versions are preferred, however.**]

4. List 4-5 possible research questions related to the topic, in question form, which might be suitable for a research essay. These questions should deal with one aspect of the topic, as narrowly as possible. They should not be easy to answer, nor should they be intended to describe what is already known. Try to make them as analytical as you can.

5. Choose the one question you think is best.

6. Create a preliminary outline.

Teaching Tool

For a short animated tutorial on the research model presented here, go to: **http://www.acts.twu.ca/LBR/ResearchModel/ResearchModel.swf**

APPENDIX ONE— A Research Paper Clinic: More Tips and Troubleshooting for Development of Great Research Papers

[The following chapter was created for a seminar on research paper writing. It supplements the book *Research Strategies*, but in some cases overlaps with it. If you experience a measure of déjà vu while reading the Appendix, be thankful that you've been given a chance to see a summary, with enhanced examples, of the essay preparation hints discussed in the body of this book. Or use it on its own as a mini-workshop.]

A1.1 Research Questions

A1.1.1 Why Most Research Papers Miss the Target

You have likely been trained to see a research paper as a way to force you to read a lot of material from many sources, then report on what you have read, covering whatever subject you have been given with as much depth as space will allow.

Thus, a research paper on the causes of World War I would begin with a brief history of the events leading to this war, then would list several causes, and would perhaps conclude with a statement that war is bad, and we should watch for warning signs so we can prevent war in the future. What would you say your research paper is about? "It's about the causes of World War I," you'd reply, looking at me strangely. You've read all about those causes in various

books and magazines. You've put that material together (that is, you synthesized it), and you've written a paper explaining the causes.

But your paper missed the target entirely. You see, a research paper is not supposed to be *about* anything. Please understand this. If you were writing a genuine research paper, and I asked you, "What is your paper about?" you should be able to answer, "It's about nothing." That response, of course, would result in some questions: *"What do you mean, 'It's about nothing?' Does this mean there's no a topic? Are we in an episode of Seinfeld?"*

Certainly, you have a topic. The problem is that my question, "What is your paper about?" is wrongheaded. It assumes that a research paper is intended to explain a certain topic, using resources that you have studied. That's a false assumption. Studying up on a topic and compiling data about it is not research at all.

What, then, is the point of a research paper?

A research paper seeks to use data from various resources to answer a question or to solve a problem.

Data in this case is not an end in itself but a *means*, a *tool*. Research does not result merely in explanation of a topic. It is a problem-solving exercise that takes data from various sources and analyzes it to help you answer a burning question.

A1.1.2 Getting Focused by Asking the Right Question

If you are merely reporting on what you have read, then you don't have to worry about the purpose of your paper. Your purpose is to explain to your reader everything you know about your topic.

But if you are in search of the answer to a question, you're not really interested in knowing everything about a topic, only what is relevant. Sure, you will do a background study to make sure you understand the issues involved. But your data will become selective, because what you really need to know is *only that portion of the data which can help you answer the question.*

EXAMPLE:

Instead of describing the causes of World War I, find a controversy that can become a research question. For example, it is often argued that the murder of Archduke Ferdinand was the chief cause of World War I. Your initial research tells you that this is an overly simple explanation. True, this particular assassination did lead to a series of events that began the War, but lots of people are

murdered every year without the events turning into a war. Thus you become interested in answering a question like this one: *Why did the murder of Archduke Ferdinand become the flashpoint that led to WWI?*

There are several assumptions here to test out:

- This was no ordinary murder.
- The murder must have meant something more to the various sides than is apparent.
- There must have been a background to this particular murder so that the sides that created a war out of it knew immediately what the murder meant.

I think that in all my teaching of research skills I use one word more often than any other—"Focus." Most people approaching the research task are facing a crisis of lack of proper focus. This is what causes the anxiety, the false view that research is tedious, the shabby research papers and the punishment from the professors who have to read them. Focus, focus, focus. The more your project forms a clear, narrow and single-minded image in your head, the better off you are.

This is where the research question comes in (or thesis statement if you want to go that route). It identifies the research problem and gives you the direction your research needs to take to solve it. The research question, along with a preliminary outline, provides you with a roadmap to success for any project. But a badly constructed question will mess you up every time.

Back in Chapter Two we looked at examples of bad and ugly questions. Let's pick up on those, see what they look like, and learn how to fix them. In each case, we'll define what is good, bad and ugly, look at examples, then suggest some fixes:

A1.1.3 The Question that Isn't There

Questions that aren't there aren't necessarily projects without questions. It's just that the questions don't lead to real research. These are the projects that simply compile information on a topic, then report on it. As such, gathering information is an end in itself, so there is no problem to solve.

Definition of Good—The project not only has a question, but that question leads to a problem-solving exercise in which information is a tool, not an end in itself.

Definition of Bad—The project has a fairly narrow topic but the question is merely informational in its goal.

Definition of Ugly—The project not only merely gathers information, but is itself a survey of a broad subject area without any question to answer.

Examples of Bad and their Fixes:

"What were the events of August 1914 that led to the start of the First World War?"
Fix it by asking: "*Was the assassination of Archduke Ferdinand really as significant a cause of WWI as many scholars assume?*"

"What foods are good sources of low fat protein?"
Fix it by asking: "*Among the top three diet plans, which is the most likely to offer success for long term weight loss?*"

"Who are the Taliban?"
Fix it by asking: "*Is the UN's approach to dealing with the Taliban of Afghanistan the best way to address the problem?*"

Examples of Ugly and their Fixes:

A survey of terrorism today.
Fix it first by narrowing to at least one arena of terrorism, then ask: "*Are acts of terror in Iraq since 2003 actually terrorism in the classic sense or a battle for power among competing factions?*"

A description of Microsoft's latest innovations.
Fix it first by narrowing to one area of operation, then ask: "*Why has Microsoft lagged so far behind Google in development of its Windows Live search engine?*"

A history of the Crusades.
Fix it first by narrowing to one aspect of the Crusades, then ask: "*Was the motivation for the first Crusade primarily religious or political/economic?*"

A1.1.4 The Fuzzy Question

Definition of Good—The question is focused clearly enough that, not only does your reader have a certainty about your goal, but so do you.

Definition of Bad—The project has a fairly narrow topic but the question is does not provide a clear mental image of your goal.

Definition of Ugly—Both the topic and its goal are not defined clearly enough to be understood.

Examples of Bad and their Fixes:

"Was it good that the once secret documents from the history of the CIA were made public?"
Fix it by pondering: Good for whom? What do you mean by "good?" Then ask, *"Was it beneficial for the ethical operation of the current CIA that the secret documents from its early days were released?"*

"What should we make of all the recent speculation about the nature and life of the historical Jesus?"
Fix it by determining what you mean by "what should we make of," then ask, *"To what extent can we say that the speculation about Jesus in the Da Vinci Code actually has merit?"*

"How can we make sense of the harm reduction policies put forward by some experts who deal with users of illegal drugs?"
Fix it by deciding what sense you want to make, then ask: *"If the harm reduction procedures for illegal drug users in Europe and Canada have been shown to reduce drug use, why are they not being implemented everywhere?"*

Examples of Ugly and their Fixes:

"Is Globalization a good thing?"
Fix it first by defining your topic. "Globalization" can be economic, political, religious, etc. Also decide what you mean by "good thing." Then ask, *"What evidence is there that the development of global free trade actually improves the economic life of the poorest producers of goods?"*

"Why are people so paranoid these days?"
Fix it by setting a definition for "paranoid." Are you speaking of a psychological condition or a mood of distrust? Next determine which people and what

they are paranoid about. Then ask, "*If serious crime rates are going down, why do so many people continue to believe that there is more crime in their neighborhoods than there once was?*"

"*What's the best solution to the problem of street people?*"
Fix it first by defining what you mean by "street people" (Homeless people? People who drink too much and hang around in public places? Street prostitutes? Alienated teenagers who have homes but don't want to be there?), what the problem is, and who you want to address it. Then ask, "*To what extent are volunteer organizations dealing with urban homeless people a better approach for housing them than are government sponsored programs?*"

A1.1.5 The Multi-part Question

Definition of Good—The question is absolutely singular—one goal expressed as one simple question.

Definition of Bad—There are two or more related questions on the same topic so that it is unclear which question is the primary goal.

Definition of Ugly—There are two or more questions really dealing with different aspects of the topic, so that no attempt to unify them into one question is going to succeed.

Examples of Bad and their Fixes:

"*I want to look at the causes of WWI and discuss why war is a great evil and show how WWI could have been avoided.*"
Fix it by determining what your main goal is and eliminating any other goals or making them subordinate to the main goal. Then make it an actual question instead of an agenda statement: *In examining the causes of WWI, how could this war have been avoided?* Or even: *How could WWI have been avoided?* (assuming that you will have to consider the causes anyway to answer the question).

"*What are the difficulties facing homeless children and how can we help further their education?*"
Fix it by asking: "*Given the challenges facing homeless children, what is the best way to ensure that they get a good education?*"

"*What are we doing about the use of illegal guns and how can we prevent so many young people dying in our cities?*"

Fix it by asking: *What is the best way to decrease the number of shooting deaths among urban youth?*

Examples of Ugly and their Fixes:

"*Will we find a cure for AIDS and how do we change public perception about it and how are we going to get the drug companies to supply cheap AIDS treatments to developing countries?*"
Fix it by choosing one, then asking: "*How can we get the drug companies to supply cheap AIDS treatments to developing countries?*"

"*Did Shakespeare actually write the plays attributed to him, and what are the basic features of his tragedies, and in what way could* Twelfth Night *be viewed as a tragedy rather than a comedy?*"
Fix it by choosing one, then asking: "*How valid, using standard rules of interpretation, would it be to view* Twelfth Night *as a tragedy rather than a comedy?*"

"*What causes Fetal Alcohol Spectrum Disorder and how can we help women not to drink during pregnancy and how could the legal system do a better job of keeping Fetal Alcohol youth and adults out of jail?*"
Fix it by choosing one, then asking: "*How could the legal system do a better job of keeping Fetal Alcohol youth and adults out of jail?*"

A1.1.6 The Open-ended question

Definition of Good—The question sets its boundaries clearly so that there is no risk that the answers will go off in several different directions at once.

Definition of Bad—The question is fairly narrow, but it is capable of being answered in a variety of ways.

Definition of Ugly—The question is quite broad and is capable of being answered in a variety of ways.

Examples of Bad and their Fixes:

"*What were the implications for French industry of the end of WWII?*"
Fix it by determining what sorts of implications there were and narrowing a bit further. Then ask: "*What was the reason why French automobile manufacturing rebounded after WWII?*"

"*What are the implications of the Crusades for modern Arabs?*"

Fix it by defining "implications" more narrowly and clearly, then ask, "*What is the best way for the West to overcome the perception of some Muslims, brought on by reference to the Crusades, that it wants to destroy Islam?*"

"*If we were to legalize all currently illegal drugs, what would that mean for our country?*"
Fix it by defining "mean," then ask, "*How valid is the argument that legalizing all currently illegal drugs would cut crime and stabilize or diminish drug use?*"

Examples of Ugly and their Fixes:

"*What trends should we be looking for in the computer world over the next decade?*"
Fix it by asking narrowing dramatically, then asking: "*Will converging technologies over the next decade create a single communication device that will fulfill all the tasks done by current consumer computing and electronic interaction?*"

"*What were the results of the Asian financial crisis of the 1990s?*"
Fix by narrowing dramatically, then asking: "*Have Asian stock markets changed their procedures sufficiently to avoid another major crisis such as that experienced in the 1990s?*"

What does the rise of the Internet mean for information today?
Fix by narrowing dramatically, then asking: "*Why does a user created reference resource like Wikipedia succeed in providing mainly reliable information despite its lack of traditional editors?*"

A1.1.7 The Question that Will Not Fly

There is no cure for questions that simply cannot be answered given our current state of knowledge. Abandon them or foolishly devote your life to searching for solutions to things that can't be solved. Ultimately, you'll end up a delightful eccentric, but your efforts won't even raise a blip on the importance scale.

A1.1.8 Thesis Statements

Some professors prefer you to use thesis statements. Put quite simply, a thesis statement is a proposed answer to a research question. It is not a conclusion as such (which demands that you've gone through all the evidence) but a proposal, like a hypothesis in a scientific experiment, that needs to be demonstrated.

For example, you might ask: "*Are government sponsored programs or non-profit charitable programs better able to address the needs of homeless people in city cores?*" The corresponding thesis statement might be: "*Non-profit charitable programs are better able than government sponsored programs to address the needs of homeless people in city cores.*" This is not a dogmatic statement but a position you want to try to defend with evidence.

If you're not comfortable with doing research papers, the research question approach is best, because with a thesis statement there is always a tendency to prefer the evidence that supports your thesis and ignore or misuse the evidence that doesn't.

If you do take the thesis method, e.g., "The following paper will argue that ..." you need to be very careful to look at the counter-arguments as well. You might in the end be shown to be wrong.

A1.2 Practice with Research Questions

The Questions:

Determine whether or not each of the following the research questions is a good one. Then check the key below to see what I thought of the question:

1. *Did Martin Luther, the German reformer, write anything criticizing the Jews?*
2. *What effect does homelessness have on the price of beds in Canada?*
3. *What's happening with Bill Gates now that he's made all that money?*
4. *Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?*
5. *What happened in Iraq in 2003?*
6. *How could the looting of the museums in Iraq in 2003 have been avoided?*
7. *What are the main features of Fetal Alcohol Spectrum Disorder and what can be done both to treat and prevent this condition? Should all alcohol containers carry a warning?*
8. *What are the ethical implications of human cloning?*

Suggested Key for the Questions:

1. *Did Martin Luther, the German reformer, write anything criticizing the Jews?*

Bad Question: Anyone with the works of Luther available can find the answer in less than half an hour. Thus the arrow is already in the target. A research question is more than discovery of a fact. It has to deal with an issue that can be analyzed in depth. If it's already answered easily, the level of analysis drops to zero.

2. *What effect does homelessness have on the price of beds in Canada?*
Bad Question: This question is the never-will-fly variety. Even if there is some connection between homelessness and the price of beds, there is no conceivable way for you to find out the nature and extent of the connection. Sometimes two ideas simply have no obvious relationship or the relationship is such that no amount of searching will help you find out what it is. A similar sort of question might be one like this: *What has been the influence of the rise of the automobile on morality in the United States?* There may be an influence, but I can think of no survey or statistical tool that would give you an answer. The key to avoiding these kinds of questions is to ask yourself: "Is there a reasonable hope that I can gather evidence that will lead to an answer?" If there seems to be no hope, drop the question.

3. *What's happening with Bill Gates now that he's made all that money?*
Bad Question: The point is fuzzy, not focused at all. What are you trying to discover? What Bill Gates does with his day? Whether he's enjoying his money? Whether his financial give-away plan is the best use of his money? As long as your question doesn't indicate a point or a direction you have no idea how to develop your paper. Here's a good focused research question to replace it: *Is Bill Gates' plan to give away a large portion of his wealth sufficiently well organized to ensure that the money goes to the right causes?*

4. *Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?*
Good Question: Why? It demands research and analysis and there is evidence available to support that research. You would need to discover when various complaints about the Ministry were prominent in the press, then see whether or not changes in the Ministry consistently followed periods of complaint.

5. *What happened in Iraq in 2003?*
Bad Question: This question likely wants the writer to recount the story of the Iraq War (which would only be a descriptive paper), but it's not clear from the question what the author is seeking. Many things happened in Iraq in 2003.

6. *How could the looting of the museums in Iraq in 2003 have been avoided?*
Good Question: In hindsight, it should be possible to look at what happened and show what protections could have been devised to prevent the looting. Considerable writing has been done on the issue, so there should be lots of information.

7. *What are the main features of Fetal Alcohol Spectrum Disorder and what can be done both to treat and prevent this condition? Should all alcohol containers carry a warning?*
Bad Question: This is your classic multi-pointer. With this many questions to answer, you will find that your project is cut up into a number of smaller projects and has no overall unity. Follow this rule—every research project must deal with only one issue expressed by one question.

8. *What are the ethical implications of human cloning?*
Somewhat Good Question: There's a lot to research and analyze but you may well find that the question is too open-ended, so that you run into far too many ethical implications to deal with. To solve this, limit your scope. For example, ask something like this: *How does human cloning alter our definition of a 'human being'?*

A1.3 Types of Research Papers

Here are some common research paper types:

A1.3.1 Descriptive Paper

This type of essay aims at merely discovering and sharing information about something. It is not a true research paper but just a report on what you've read. Avoid this approach unless your professor explicitly asks for a reading report or survey without evaluation.

A1.3.2 Analytical or Investigative Paper

This type of essay seeks to find out the truth about something. It often focuses on questions like: Who? What? When? Where? Why? How? For example:

- *Why is the United Nations Organization so slow in responding to situations of genocide in the world?*
- *When did the Reformation actually begin?*
- *What is the truth behind the legend of Robin Hood?*
- *How were the pyramids of Egypt constructed in a time when machinery was so simple?*

A1.3.3 Persuasive Paper

This type of essay takes a position on a particular issue, seeking to persuade the reader of the truth of something and is generally expressed through a thesis statement rather than a research question. There are two major types:

- Cause and Effect—this has the goal of persuading you that something or someone was the cause or might be the cause of some event or situation. For example, consider these possible thesis statements:

  Support for abortion creates a slippery slope in which society loses its respect for life and other policies like euthanasia are allowed to flourish.

  The reason why terrorism flourishes is that we have not paid sufficient attention to the problems of injustice in the world.

  Note that cause and effect issues are notoriously difficult to demonstrate, because two events are often related only by coincidence or there are several factors at play rather than only one. To show cause and effect, you have to demonstrate that the effect was caused by one factor out of all other possible factors. That's not easy to do.

- Evaluation—this seeks to persuade you that one view is better than another on a certain topic. For example:

  The problem of homelessness is best solved by local non-governmental initiatives rather than federal programs.

  Assisted suicide should be condemned, not supported, as a means to deal with the suffering of the dying.

A1.4 The Outline as a Research Paper Guidance System

Most unsuccessful research papers have one of two problems—lack of a good, well-focused research question and/or lack of a proper structure that can take you from question to conclusion clearly and faithfully. In a research paper, this second function is done with the outline.

A1.4.1 Why worry about an outline early in the research process?

Many paper writers leave the outline to the end of the process. Some even write the paper then discern an outline so that it can be included on a contents page. The real point at which outline construction needs to begin is *once you have a research question.*

- The points of your outline tell you what you need to cover and thus serve as a blueprint for your research. Your outline also keeps you from missing anything.
- The outline gives body to your research question, showing the direction you have to take to reach your target. As you are doing your research, you will begin visualizing the completed product, thus giving your paper more depth and substance.
- It takes time for a paper to germinate in your thinking. The outline gives you a structure to allow that germination to develop properly.
- The very structure of a research paper is crucial to making the paper work. If you get things out of order, or if the order is not clear, it won't matter how much good information is there—the reader will see the paper as a failure. Thus, if you start thinking about structure and order early in the process, you are more likely to have the order right when you're done.

A1.4.2 Steps to a Good Outline

Use Your Research Question

Your research question expresses the goal of your essay. Embodied in it is the basic embryo of your outline. Here's how to turn a research question into an outline:

First, have a good look at your question and ask yourself, "What am I trying to accomplish?" In a few sentences, analyze your purpose, fleshing out your research question. Suppose your research question was:

Was the assassination of the Archduke Ferdinand as crucial a cause of WWI as is often asserted?

You could expand on it like this: There is a common view that the assassination of the Archduke created WWI. If that is true, then other circumstances will be much less significant so that the assassination pretty much single-handedly brought about the war. But if the assassination by itself was only one causal element, then the assassination may have been a final flashpoint in a more complicated process. What was that process?

Can you see how the question is leading to development of a structure?

Determine the scope of your paper

With your analysis of your research question before you, ask yourself: *What do I need to cover in order to answer my question?* Look at the example above. You will need to:

- Present and critique the common view that the assassination led to WWI
- Explain the events of that assassination and the reaction of the nations to it.
- Discover any possible larger issues of which the assassination was the final step.
- Consider all the evidence and come up with an answer to the research question.

You now have the elements of an outline. It may not be in the right order, and you may have to revise it, even add or subtract elements, but the basics are there.

Begin thinking about order

You don't need to make any final decisions about order yet, but these are some tips:

You will need an introduction that serves two purposes: to provide your reader with enough background information to be able to deal with your topic, and to declare your research question. Alternatively, you may want to formulate a thesis statement, which is a proposed answer to your question, along the lines of, "The following paper will argue that ..."

If there is any further development of background material that's more complex, it will have to go next as a separate section.

Often you will find that you are dealing with more than one point of view. Once you determine which point of view you are going to support, cover the view you do not support first, then cover the view you do support. Never reverse this order.

Think about your reader. What needs to be covered before something else makes sense? Avoid stringing out your outline into 6, 7 or more points. A structure of 3 to 5 points works far better for the reader. You should group things together so that you use fewer points, even if it means that each point has two or more sub-points.

Germinate

Memorize the outline you've created, even if it's still quite basic, and develop the habit of *germination.* What's "germination?" This is a hard thing to describe, but it's something like letting a seed grow inside of you. Take time through your day to think about your outline: *Would this order work better than that order? Have you left anything out? Have you included anything that really isn't relevant to your research question?*

Then, as you gather your books, articles, and so on, and start to read them, begin to write your paper in your head, thinking constantly about your reader: *At what points might your reader become confused? What would you change to make those points clearer? Are you being fair and complete by including all sides of an issue? Is your research question itself in need of some revision, and, if so, how will that change your outline?*

By the time you write your paper, your outline should be working well for you, and your paper should pretty much be already be written in your head.

Why do you need germination? Because depth and maturity in a research paper comes through working on it over time. Without this process, you simply have another one of those projects that are dashed off superficially and lack substance. Truly great writing needs germination. Your paper has to live and

grow in you, or it will never have the power it should have for a reader. The way you allow it to grow is to build it around your ever-maturing outline.

If you have problems with leaving research projects to the last minute, you might want to start using the Assignment Calculator (**http://www.lib.umn.edu/help/freecalc/**). Its strategic approach to scheduling research papers for you is very close to the research model used in this book.

Structure your final outline

Ultimately, just when you were beginning to enjoy framing your arguments in your head, your germination process needs to come to an end. This happens somewhere either just before the writing process begins, or during the writing. But one thing needs to be complete before writing begins: your final outline, which becomes a roadmap for the final composition of your research paper, telling you at each point what you need to cover to develop your paper from introduction to conclusion. A paper written without an outline firmly before you or in your mind is a paper destined to confuse your reader and resist your hopes to communicate what you have discovered.

I cannot stress this strongly enough—your outline is the crucial element in hitting the target at which your well-formulated question is aiming.

So how do you go about structuring your final outline? If you have any uncertainty about your skills, follow a simple formula: Introduction, 3 or 4 points, Conclusion.

KEEP IT SIMPLE. If you find there is need for some complex discussion in point 2, then use sub points, like this:

Introduction
I. The events of August 1914
    A. Early Part of the Month
    B. Assassination of the Archduke
        1. The plot
        2. The perpetrator
II. The common argument that the assassination started WWI
III. A reassessment of the cause of WWI
    A.
    B.
Conclusion

A1.4.3 Practice with Outlines

For the following questions, create a 3 or 4 point outline, then compare your outline with mine in the suggested key (remember that outlines may vary):

1. *To what can we attribute the fact that Martin Luther's attitude toward Jews grew more and more negative through his lifetime?*
2. *What is the best approach to reducing homelessness in an urban setting?*
3. *Is the virtual monopoly of Microsoft really as bad for the computing world as many critics say it is?*
4. *Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?*
5. *How could the looting of the museums in Iraq in 2003 have been avoided?*
6. *What is the best way to deal with non-violent teens in trouble with the law but afflicted with Fetal Alcohol Spectrum Disorder (FASD)?*
7. *What are the implications of human cloning for our definition of a "person?"*
8. *Was the religious "conversion" of Roman Emperor Constantine genuine or a fraud carried out for political reasons?*

A1.4.4 Suggested Key for Practice with Outlines

1. *To what can we attribute the fact that Martin Luther's attitude toward Jews grew more and more negative through his lifetime?*

Possible Outline:
Introduction [Explain who Luther was and ask the research question]
I. Evidence of Luther's Growing Anti-Semitism
II. Possible Explanations
    A.
    B.
    C., etc.
Conclusion

2. *What is the best approach to reducing homelessness in an urban setting?*

Possible Outline:
Introduction [Explain the problem of urban homelessness and ask the research question]
I. Current Approaches to Reducing Urban Homelessness.

A.
B.
C., etc.
II. Critique of Such Approaches
A.
B.
C.
III. A Proposed Best Approach
Conclusion

3. *Is the virtual monopoly of Microsoft really as bad for the computing world as many critics say it is?*

Possible Outline:
Introduction [Introduce the current monopoly issue and ask research question]
I. Arguments that the Monopoly is Bad for the Computing World
II. Arguments that the Monopoly is Good for the Computing World
Conclusion
[This outline, by putting "Good" last, assumes you are going to argue that the monopoly is good for the computing world.]

4. *Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?*

Possible Outline:
Introduction [Introduce the issue and ask the research question]
I. The Nature of Changes in the Program over the Past 5 Years.
II. Instances of Coordination between Press Pressure and Changes
A. Incident One
B. Incident Two
C. Incident Three, etc.
III. Possible Alternate Explanations for Timing of Changes
Conclusion

5. *How could the looting of the museums in Iraq in 2003 have been avoided?*

Possible Outline:
Introduction [Explain the problem and ask the research question]
I. An Account of the Looting and the Failure to Prevent it
II. Possible Alternate Security Measures that could have Been Introduced

A.
B.
C. etc.
Conclusion [Summarize possible alternate measures and state an overall plan that might have worked better.]

6. *What is the best way to deal with non-violent teens in trouble with the law but afflicted with Fetal Alcohol Spectrum Disorder (FASD)?*

Possible Outline:
Introduction [Explain problem of non-violent FASD offenders and ask research question]
I. Common Current Approach[es] to the Problem
II. A Critique of Such Approach[es]
III. A Suggested Better Approach
Conclusion

7. *What are the implications of human cloning for our definition of a "person?"*

Possible Outline:
Note that this is still quite an open-ended question, allowing for several possibilities. Thus a variety of outlines are possible. Here's one.
Introduction [State the problem and ask the research question]
I. Traditional Definitions of a Person
II. Elements of Cloning that Redefine "Person."
III. A New Definition of Personhood.
Conclusion

8. *Was the religious "conversion" of Roman Emperor Constantine genuine or a fraud carried out for political reasons?*

Possible Outline:
Introduction [Introduce Constantine and his conversion; ask the research question]
I. Evidence that the conversion was genuine.
II. Evidence that the conversion was a fraud with political motives
Conclusion

A1.5 Building the Substance of the Essay

In this section we will deal with the substance of this thing called a research essay. We will consider how it is put together and study the crucial elements that make a mature, thoughtful paper.

A1.5.1 Intent and Direction

The best research papers are characterized by strong goal-orientation. This means that they have a purpose, defined by the research question, and a sense of movement from problem to solution.

A research essay is like the flight of an arrow from bow to target. When you aim the arrow, you see a target—a specific destination. You know that to hit the target you will have a launch, a period of travel through the air, and a conclusion when the arrow hits its mark.

But an arrow in flight is also subject to things like wind speed and wind direction. Similarly, a research essay does not ignore the influencing factors—context of the issue and the various options that could be answers to the question. There needs to be opportunity for recognition and analysis of other points of view, even opposing ones, as long as you make sure you stay on target with your main intention—to answer the research question.

Here's the rule: *Every part of your paper needs to contribute ultimately to answering your research question. There is no room for irrelevant details, even if they are interesting.*

Keep your paper goal-oriented. Don't allow it to wander or lose its sense of purpose.

A1.5.2 Building the Paper

There are simple procedures that make the difference between a well-constructed paper and a mess. Here are some of them:

Use your outline like a blueprint.

Careful structure will contribute more to the success of your paper than anything else. *Follow the plan.*

You may be the sort of person who resists structure and organization in your writing, believing that structure limits your freedom of expression. But

remember this: Structure is not just for your benefit, but the benefit of your reader. The reader has a distinct disadvantage. He or she does not know where you are going in your paper. Without structure, much of what you have to say will remain a mystery to the reader. With structure, your reader is never lost.

Beyond wanting to help the reader, you want to avoid leaving out anything that is important or including anything that is not important.

Carefully adhering to your outline as you write ensures that everything that needs to be in your paper is there. Write out your outline and keep it (along with your research question) ever before you as you produce your paper.

Build your paper from the paragraph up.

While sentences are the basic building blocks of communication, paragraphs are the basic building blocks of an essay. Each paragraph advances your argument, like steps in a staircase. Think of your paragraphs as the smallest sub points of each point in your outline. Each has a topic and a unity that advances whatever you are covering in the particular element of your outline.

A paragraph is a collection of sentences that develop the same theme.

Paragraphs may be as short as two sentences or as long as ten or more, but most paragraphs in a term paper will probably be between two and six sentences. If they are any longer, you should find a way to break them into smaller paragraphs.

We use paragraphs for several purposes:

- To introduce a new idea.
- To divide an idea into its parts in successive paragraphs.
- To give readers a break and make the essay easier to read. When I see a whole page without a paragraph break, it feels like an obstacle—too much text that needs to be read before I can take a breather. If that page is broken into paragraphs, I can pause in my reading when I want to.
- To help the reader to see more clearly where your thoughts are going. Every essay is like a journey through a subject. The paragraphs help the reader understand the stages of that journey.

What are the parts of a paragraph?

- Topic Sentence—this is usually the first sentence, though it can sometimes be the second. This sentence tells you what the paragraph is about. It declares the theme or main message of the paragraph.
- Examples or further development intended to support the topic sentence—the sentences after the topic sentence should illustrate or support the message of the topic sentence.
- Conclusion—in many paragraphs, the final sentence will give the conclusion to the paragraph's idea.

When should I consider beginning a new paragraph?

- When you move to a new idea.
- When there is transition language, for example, words like "therefore," "turning to the issue of _____," "on the other hand," etc.
- When you have just concluded an idea and the next material is illustration or further explanation.
- When your paragraph is getting too long. Be careful here, however, that you don't break for a new paragraph part way through your idea.

Some tips for paragraphs:

- Always check to be sure that every sentence in your paragraph supports your topic sentence. Never have a paragraph like this:

  There are too many people speeding on our freeways. My cousin has a new car, but he only drives it in town. He took me to a shopping mall the other day. We saw some of our friends there.

  Notice that the sentences after the topic sentence have nothing to do with the topic sentence. Now look at this paragraph:

  There are too many people speeding on our freeways. My cousin has a new car, but he refuses to drive it on the freeway, because he has been frightened by so many speeders. If we do not control the problem of speeding, a lot of people will avoid freeways, and more of those who do use them will die.

- Make sure that each paragraph has a good relationship with the one before it and the one after it. Sometimes this means that you need to use transition words to help the reader understand where you are going, e.g., "Turning to the problem of ...," "To illustrate this point, let us ...," "The results of this policy, however, are ...," "In conclusion ..."
- Each paragraph must in some way support the main idea of the essay.

A1.5.3 Making Proper Use of Sources

A research paper has some very definite features that make it different from an opinion piece or a speech. First, it is an investigation of a problem, leading to a solution. This means that there is room for exhortation or application only in the conclusion, and even then the application should be brief.

Second, if a research paper is an investigation leading to a solution, it is a journey that requires the help of others, that is, the help of the books, articles, etc. that you gather during the research process. While you could simply follow a logical process of argumentation, leading to a conclusion, you need to recognize that no topic is truly original, even if your solution is different from that of most of your sources. Other thinkers have also dealt with the issue and have put forward evidence for their own interpretations.

In fact, finding a solution to a research question most often involves weighing the conflicting interpretations of others and finding your answer as a result of your evaluation.

Using sources can be tricky. At one extreme, your paper could be primarily a set of quotations from books and articles, with brief commentary from you. At the other extreme, you virtually could ignore your sources and do most of the analysis yourself. The ideal is somewhere in between, where you use your sources extensively but still keep control over the analysis.

How do you achieve the ideal use of sources?

Group your sources by the particular issues they address, and especially by the particular viewpoints they support. Thus you should have a group of sources that deal with or support view A., a group that deal with or support view B., and so on.

Keep your quotations to a minimum, usually only one quotation for every page or two. Keep the quotations under 5 lines for the most part. Instead of quoting, refer. Use language like: *Smith has argued that Constantine embraced Christianity solely because he saw its power as a political force in the Roman*

Empire. You are not quoting. You are referring to or describing a viewpoint in your own words. You'll still need to provide a citation (either in the text (Smith, 234) or as a footnote or endnote), but you'll avoid having your sources do all your speaking for you.

Recognize that the research paper is not supposed to be simply an account of what the world already knows but an analytical investigation of a problem in dialogue with others who are also addressing the problem. Thus, your own analysis, indeed your own presence, has to be seen in the paper. This means that you control your sources. They do not control you. It is you who must lay out the information that your sources provide, e.g., *Smith has argued that ... Jones provides a contrary view ... Green has added a new voice to the issue by asserting that* [and so on]. You are using your sources to be sure, but you are controlling the process.

Almost never provide new information with a quotation. Use quotations to support a statement you have made first or to present a striking way in which an author has made a point.

Use sources that you agree with as well as sources you disagree with. A research paper needs to show evidence that you've investigated all relevant points of view and have treated your sources fairly. In general, even for writers with whom you disagree, explain what the source is saying before criticizing. Let your source be heard fairly before you evaluate it. Even when you do criticize, avoid language of ridicule. Make your criticisms logical and fair.

A1.5.4 Avoiding Theft of Other People's Work

Plagiarism is passing on the thoughts or words of someone else as if they were your own. It ranges from quoting others without acknowledging them to using other people's unique ideas as if they were your unique ideas.

It's relatively easy to avoid quoting a source without using quotation marks and a bibliographical note. It's a little trickier, however, to determine if you've stolen someone's ideas. A general rule of thumb is that, if an idea is found in two or three other sources which are not all dependent on one earlier source, you can safely use it without acknowledging its source. To be on the safe side, make a bibliographical note if a source is stating a point of view rather than just well known information.

There is another source of theft that is often not recognized—the use of paraphrases by which you take your source, sentence by sentence and simply rewrite each sentence using different words. In this case, you are not interpreting and

explaining your source, but using your source's paragraph structure and thoughts in something that is very close to quoting. This too is plagiarism.

Here's an excerpt from an article that I published on the Internet on the significance of electronic documents. The original paragraph is:

Thus an electronic document disrupts the very meaning of the word "document." Electronically, a "document" can be viewed from anywhere in the world at the same time via the Internet, can have its wording and its look changed at will without any sign left behind that there was an earlier version, and can encompass other documents as well as encourage reading out of order. This may seem exciting (for example, we can hyperlink a document so that any possible problem or interest a reader may experience can be answered with the click of a mouse) but it carries dangers as well. ("Electronic Documents are Different," http://www.acts.twu.ca/lbr/electronicdocs.htm).

A paraphrase, which would *not* be acceptable, might read:

Therefore an electronic document upsets the actual meaning of the word "document." In electronic form, a "document" can be seen all over the world all at once via the Internet, can have its words and what it looks like altered at will without having left behind any indication that there was an earlier form, and can include other documents as well as support the idea of reading out of order. This might seem good, but it carries dangers as well.

Notice that I've borrowed sentence structure and even words from the original without really interpreting it. Now let me express the material in my own words:

Badke argues that electronic documents are radically different from other things called "document." Electronic documents can instantly be seen everywhere on the Internet, people can alter them so that we have no idea what the original was, they can be linked to other electronic documents, and the order in which you read them may not be important.

What I have done is to *interpret* what I've read and to express it mostly in different words (though it's all right to use a few words from your source, maybe 5% or less). Remember, though, that the point of a research essay is not simply to quote or interpret others, but to evaluate their work and provide your own arguments. Your analysis is extremely important.

A1.5.5 Practice with Essay Structure

Let's walk through the development of a research paper around the following question:

Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?

Introduction [Introduce the issue and ask the research question]
I. The Nature of Changes in the Program over the Past 5 Years.
II. Instances of Coordination between Press Pressure and Changes
    A. Incident One
    B. Incident Two
    C. Incident Three, etc.
III. Possible Alternate Explanations for Timing of Changes
Conclusion

Here's a way we could develop our ideas:

Introduction
It is common for government departments to take press criticism seriously, even to adapt programs rather than have the press influence public opinion in a negative way. There have been many changes in the _____ Child Welfare Program over the past number of years, many of them appearing to be reactions to press criticism. Is there evidence that changes in emphasis in the _____ Child Welfare Program in the past 5 years are the result of pressure from the press?

I. The Nature of Changes in the Program over the Past 5 Years
You could survey, with documentation, the major changes that have occurred, using chronological order as your organizing principle. By doing this, you are showing evidence that significant and frequent changes have been made.
II. Instances of Coordination between Press Pressure and Changes
    A. Incident One
    B. Incident Two
    C. Incident Three, etc.
Now take each instance of change and follow this kind of structure—Incident One: Prior press reaction, timing of change, determination of whether or not the change is a correction of the problem raised by the press.

III. Possible Alternate Explanations for Timing of Changes
Now provide analysis of any other possible driving motivations for the change. You have shown a correlation between press criticism and changes, but you have not demonstrated cause and effect until you've eliminated other explanations.
Conclusion
Summarize briefly what you have covered, and make a final statement either supporting or rejecting the implication of your research question.

A1.6 Bibliographic Style

Many faculty members place an emphasis upon papers being presented in a certain style. This has long been an issue with students, both because perfect style is so hard to achieve, and because it doesn't make much sense to give so much effort to something that really doesn't seem important to the construction of a research paper. Style is important, however, for several reasons:

- The reader has fewer distractions away from content when the style (even proper title pages and tables of contents) is consistent and clear.
- The reader is better able to navigate a properly formatted paper.
- Adhering to style helps to guarantee that nothing important in the paper will be left out. This is particularly true in notes and bibliographies, where sloppy style can result in dates, volume numbers, pages, and publisher information being left out.
- Your professor wants proper style, and that makes style important in its own right (if, indeed, you're at all interested in getting good grades).

A1.6.1 Style Software

The use of bibliographic managers like RefWorks, EndNote or Zotero (see Chapter 7) has made formatting notes and bibliography much less of a painful experience than it used to be. Personally, I think students are often made to devote too much effort to getting the right punctuation in the right place in a bibliography. Most of your essay-writing effort should be focused on actually writing and revising the essay. But style is important, so what are you to do?

My recommendation is to use the electronic style resources available to you to get the grunt work done. Then, armed with a crib sheet of style examples, clean up what the software could not.

There are several types of electronic style resource available to you:

Bibliographic Managers—See Chapter 7. Most of these do not actually format your paper for you, just the notes and bibliographies (though EndNote has downloadable Word templates at **http://www.endnote.com/support/entemplates.asp**).

Commercial Style Software—Commercial style software is available for a price. It enables you to format the whole research paper, not just notes and bibliography. Let's look at what a couple of these products can do, with the disclaimer that I have received no promotional fee from these products:

EazyPaper **(http://www.eazypaper.com/index.cfm)** is a truly amazing research paper formatting program for APA, MLA and Turabian, written by one of my former students, Michael Hu, a computer genius in his own right. Not only does it enable you to format papers, notes and bibliographies, but the formatting can be configured according to your professor's specifications. It will let you input references into a database, ready to be cited in your paper (though you can't direct download or import citations from journal databases). But what about all those references you stored in RefWorks? How would you get them into EazyPaper? Easily. Just generate a bibliography of them, copy citations and paste them into the EazyPaper database. It will recognize the difference between an author and a title, etc. and generate records that you can then use for citations. In its Pro version, EazyPaper even allows you to search and download book records from a wide variety of libraries. Nice work, Michael.

StyleEase **(http://www.styleease.com/)** is a more basic program that helps you format your paper and notes/references. It allows you to compile a database of citations, though you have to enter the reference information box by box (author, title, etc.) rather than being able simply to paste a citation into the database. This is a reliable product for APA, MLA and Turabian formats.

Free Internet-based Citation Format Tools

If you lack access to a bibliographic manager and don't want to spring for style software, there are tools that can help you. By searching on the WWW for a style type with the word "template" (e.g., Turabian template, APA template), you can often find word processor templates that will help you format title pages, proper spacing, and so on. But be careful—some of these are generated by professors who have their own idiosyncratic rules for research paper style.

Professors, being the truly odd bunch that they are, may have you doing some very strange things. Or, if you're skilful, you can create your own template.

There are also citation-generating tools available. Some journal database vendors (such as EBSCO and InfoTrac) have provided the ability to save or e-mail journal records in a variety of formats. The multi-catalog search tool WorldCat (**http://www.worldcat.org**) enables you to cite any book you find in a variety of formats (open a book record and click on "Cite this Item.").

There are a couple of good citation generators online: Citation Machine (**http://www.citationmachine.net/**) and KnightCite (**http://www.calvin.edu/library/knightcite/**). Each of these asks you to choose format, type of source, then allow you to enter citation information and generate an accurate citation.

A1.6.2 Crib Sheets

All of the major bibliographic styles have their own books which detail all aspects of formatting. If you are doing serious research, buy the book.

There are, however, a number of WWW-based crib sheets that give you examples of the most common formats. These can be very useful in conjunction with bibliographic managers or style software, just to check your results (especially important with bibliographic software).

Here are some web addresses, but recognize that URLs go out of date almost as quickly as pop singers:

APA:

http://www.wooster.edu/psychology/apa-crib.html
http://www.wisc.edu/writing/Handbook/DocAPA.html
http://linguistics.byu.edu/faculty/henrichsenl/apa/apa01.html

MLA:

http://www.ccc.commnet.edu/mla/index.shtml
http://owl.english.purdue.edu/owl/resource/560/01/
http://kclibrary.nhmccd.edu/mlastyle.htm

Turabian:

http://www.bridgew.edu/Library/turabian.cfm
http://www.lib.ohio-state.edu/sites/guides/turabiangd.php
http://www.wisc.edu/writing/Handbook/DocChicago.html

Several Formats plus Sample Essays in Each Format:

http://www.dianahacker.com/resdoc/ —a terrific site for format issues! (Note: "Humanities" = MLA, "Social Sciences" = APA, "History" = Turabian, "Sciences" = CSE). Includes sample papers in all four formats.

For Electronic Items in your Bibliography—all 3 Formats Above:
http://owl.english.purdue.edu/handouts/research/r_docelectric.html

A1.7 Conclusion

Research papers do not have to be the painful experience many people make them out to be. There are some significant skills for making the writing process much easier than you think. We've seen a detailed explanation of them above, but let me summarize:

- Develop a well-focused analytical research question
- Structure your paper with a solid outline that answers the question
- Write intentionally, filling in the blanks in your outline with paragraphs that focus on your single goal, which is answering the research question.
- Use your sources skillfully and ethically at all times.
- Let the tools available for formatting help you produce papers that professors will find a pleasure just to look at.

Happy Researching!