10 Steps for Writing a Research Paper
(Adapted from the Online Writing Lab at Purdue University) http://owl.english.purdue.edu

1. What is a research paper?

True research papers are more than a loose collection of anecdotal memories or a patchwork of data pulled from several books. A research paper is a piece of academic writing that requires a more abstract, critical, and thoughtful level of inquiry than you might be used to.

Writing a research paper involves (1) familiarizing yourself with the works of "experts"--on the page, in cyberspace, or in the flesh through personal interviews--to build upon what you know about a subject and then (2) comparing their thoughts on the topic with your own.

You'll end up using relevant information--facts and/or opinions--from these expert sources, these "others," to support the topic you have been given or chosen to explore. Then, as our subsequent steps will outline, the final product will be a unique and appropriate integration of evidence you have located outside yourself and personal insights generated from your own internal think tank--your mind!

Often to the surprise of many a first-year student, it is the latter that your professors are most interested in. The inclusion of sources isn't just some arbitrary can-you-use-the-library test in disguise, but complements your own ideas by providing academic context and credibility to what you are asserting. No professor will be marking what the published experts have to say, only how well you use what the experts have to say to advance your paper's purpose.

Note: A mere review of the academic "literature" in a field--i.e. a summary of the existing body of knowledge on your subject--does not make a research paper.

2. Types of research papers: Analytical or Argumentative

Whether your paper is ANALYTICAL (uses evidence to analyze facets of an issue) or ARGUMENTATIVE (uses evidence to attempt to convince the reader of your particular stance on a debatable topic), is definitely going to have a bearing on your strategy from here on in. In fact, it will determine your paper's purpose.

Analytical Papers: As the staff at the SUNY Empire State College Writer's Complex so aptly explains it: "To analyze means to break a topic or concept down into its parts in order to inspect and understand it,
and to restructure those parts in a way that makes sense to you. In an analytical research paper, you do research to become an expert on a topic so that you can restructure and present the parts of the topic from your own perspective." In this brand of research paper, therefore, you go into the researching stage with a specific topic about which you have not made any kind of conclusions. Often you will hear this called your research question.

**Argumentative (or Persuasive) Papers:** The Student Services staff at Charles Sturt University in Australia defines an argument as "a series of generalizations or propositions, supported by evidence or reasoning and connected in a logical manner, that lead to a justified conclusion. You must sustain your argument by giving evidence and reasons."

In direct contrast to the analytical paper, your approach here is to take a stand on an issue and use evidence to back-up your stance, not to explore or flesh out an unresolved topic. Argumentative or persuasive papers, as these names suggest, are attempts—after all, essay does come from the French word *essai*, or "attempt"--to convince the reader of a debatable or controversial point of view. That point of view--your thesis--and not some research question, is the core of this breed of paper.

### 3. Understand the Assignment

**In class**, ask questions or take notes about what criteria will be used in marking your paper. How will the grade be broken down? What is your professor or instructor really looking for? Your teacher(s) put a lot of work into planning the assignment so it's worth your while to pull as much information out of them as you can. Asking direct questions is also a lifesaver when pros don't explain the assignment clearly.

**At home**, (assuming you have some written text to work with) read, read, and then reread the assignment question. We're not trying to insult your intelligence by stating the obvious, but you can't give your instructors what they're asking for unless you know what it is. Scrutinize the question.

Analyze it meticulously by highlighting key assignment words--argue (sometimes disguised as disagree/agree), analyze, discuss, evaluate, compare, contrast, reflect on-- that will direct you toward your paper's purpose (i.e., what type of essay you'll be doing). Then highlight all other key technical terms that are more course-specific. Look up the words in the dictionary even if you think you know what they mean; some words have multiple meanings and special jargon might mislead you if you guess.

Often the professor does the work for you and outlines some of the very components or issues that should be discussed in your paper; those are precious freebies, so don't throw them away! You'll use them later in constructing your outline.

When in doubt, make an appointment with your instructor for 10 minutes and tell him or her your take on the assignment. Note any unusual facial expressions; constant nodding is a good sign.

### 4. Know Your Audience

The first question you might have is "Huh? What audience?" This is the most common mistake first-year college writers make: thinking they're writing for a professor and that's it. Or at the other extreme, and equally ineffective, envisioning the audience as "society in general." The former mistake is too narrow and the latter too broad to give your paper any focus.

As Dr. Steven Hale of DeKalb College describes it in his article “Choosing and Writing for an Audience,” the audience is divided into the real and the intended. Real or *actual* readers might be a peer, a tutor and, of course, your teacher. But Hale reminds us that it's crucial to write with the intended audience in mind.

### 5. Pick Your Topic

Before you start the brainstorming pens and juices flowing, start thinking early. Is there a particular subject area within your discipline that you're interested in? Have you recently heard something in class or read something that piqued your curiosity? Is there something worth exploring that will help you with a future course or an upcoming exam? After all, who says you can't use a research paper as an in-depth study tool?

Make use of your readings. Material you covered in lecture. Facts or subheadings from the textbook. Your own notes or doodled questions in the margins of your page. Or browse through an index of topics, such as the Hot Topics section of the ELAC library Web site http://www.elac.edu/departments/library/library/hottopics.html, the *New York Times* or the *Los Angeles Times* indexes or the *Readers' Guide to Periodical Literature*, (which can be found on the shelves near the periodicals at the ELAC library).

Don't write anything down just yet. The idea is to get words, associated topics, and abstract concepts floating around your brain before you even touch a pen or keyboard. You want to get the mental juices, if not flowing, at least uncapped. Too often, students are exasperated from the beginning because they don't feel they have any authority or knowledge about their subject area. That's not a great attitude to start with. Have faith in your own smarts and course work. So step one is to relax. Just start jotting down ideas about things related to your topic. You may even want to keep a journal to keep everything in one place. The important thing here is not to edit your meanderings; this is not the step for second-guessing what you've written. Connotations, associations, related concepts, connections--that's what you're looking for to get a topic.
6. Refine Your Topic

Once you've settled on a general subject area or sketchy topic, you will determine through preliminary research if you need to broaden or narrow your topic.

**Preliminary research:** So you're at the library. First find out where your reference librarian is: your safety net in troubled waters. Great, but what now? Go to the library's Web site http://www.elac.edu/departments/library/library/ and go to Find Books or Online Databases, and enter in some keywords that have to do with your subject. Whether it's "Renaissance Art," "Postcolonialism," "Dung Beetles" or "Hominids," the idea is to get a sense of how many resources are available.

With that information in hand, now physically go to the appropriate stacks to scan the titles and tables of contents of books, or read the abstracts of articles from the Online Databases.

How to know if you need to either broaden or narrow down your topic? The first clue is simply the stated length of your research paper. You can't properly discuss "war" in 1,000 words, nor talk about orange rinds for 12 pages. Use your common sense first, and then use the concrete feedback you get from the library system.

Preliminary research offers two additional practical guides to determine whether you'll even need to refine your topic. The amount of resources is often a great guide. For example, if you were either specifically asked for or think you'd need no more than about six to eight references for your paper and there are over 50 books, that's a good sign to narrow your subject area to a more specific topic. Or vice-versa, if you're writing a whopping 15-page research paper where you can easily imagine yourself consulting, if not citing, a couple dozen sources and only five pop up as a result of all your innovative searches, better start "broadening" your horizons, as it were.

The other great guide is the popularity of the subject area or topic itself. Even if your topic is great and the number of resources is perfect, if your topic is very popular, the resources may be checked out and not due back until after your deadline.

**Narrowing:** One- or two-word topics are usually too broad. To limit your "topic," use the journalist's 5Ws (Who, What, When, Where, Why) to restrict your subject to a particular time, place, kind, quality etc.

For example, how could the keyword "Postcolonialism" be narrowed? What about changing it to an adjective and then asking one of our 5 Ws? Now we have: Postcolonial what? Maybe postcolonial ATTITUDES is something you're interested in. A natural question to follow what could now be who, or in this example, where are those attitudes originating from? So from just straight "Postcolonialism" you now have a specific topic like "Postcolonial attitudes in India" or "Postcolonial attitudes in Canadian fiction." Of course, that would be way too specific to type into a computer database, but at least you have more than one word to find resources for.

**Broadening:** The UCLA College Library offers this example of a too narrow topic and how to broaden it: "Whether genetically altered soybeans are safe for consumers."

This topic as stated is seeking to answer a question for which there may be no answer yet -- more scientific and long-term research may need to be done. How can this be turned into a more manageable topic? Look for parallels and opportunities for broader associations:

- Could you examine other bioengineered foods, in addition to soybeans?
- Could you think broadly about safety concerns and issues -- what might these be?
- Who are the key players in this controversy? Consumer activists? The FDA? Scientists?
- What other issues are involved in this topic? Such as, how should foods be labeled?

This could lead to the broader topic: "What are the main issues/concerns of consumer activists in the labeling controversy over bioengineered foods?"

*After* you pick and refine a topic it is time to write your thesis statement or research question. For the argumentative paper, the keystone is the thesis statement; for the analytical paper, it is the unresolved topic or what is called the research question.

7. Thesis or Question

A **thesis statement**, for most student work, is a one- or two- sentence statement that explicitly outlines the purpose or point of your paper. It should point toward the development or course of argument the reader can expect your argument to take. It takes a side on a topic rather than simply announcing that the paper is *about* a topic.

A **research question** is just that, a question. There isn't as much to say about research questions as there is about thesis statements because research statements are much more straightforward. The question is needed because your broad topic is too abstract to give you any focus for your upcoming research. The key is refining.

To see the difference in action, imagine that you've been asked to write a research paper for a Communications course on the Personal Impact of Modern Media Technologies. After some brainstorming about your personal experiences and a bit of refining and preliminary research, you've decided to write a paper on “the impact music-listening has on students' grades.”

If it’s for an argumentative paper, your thesis statement might be something like this: "Contrary to popular, parental, and librarian opinion, 'quiet study time' does not in fact enhance but instead impairs students' productivity. Listening to music while studying is in fact a beneficial activity to add to a study regime for better grades because of the way music motivates stu-
dents and keeps them alert."

If it’s for an analytical paper, your research question might be: "What is the ultimate effect of music-listening while studying on grades?" The paper will then go on to analyze and explore the range of answers.

Remember, at this point in the process, your thesis or question will be tentative. It may change after you do research or as you write, and that's perfectly okay. But even if it turns out to be a popular view or question, your purpose should come from your mind first, not library books. This is one of the main reasons we're having you think about the point of your paper now before you read what the experts have to say.

The So-What test: Whenever you plan on writing a research paper, there is an extremely important point that you must constantly keep in the forefront of your mind--even English teachers frequently mention it as something students fail to do time and time again. What is it? To be sure to choose a topic worth arguing about or exploring. This means to construct a thesis statement or research question about a problem that is still debated, controversial, up in the air.

So arguing that drinking and driving is dangerous--while you could find a ton of evidence to support your view--would be pretty worthless nowadays. Who would want to read something they already knew? You wouldn't be persuading them of anything and all your work would be pretty meaningless.

What this means is that during the topic-formulating stage and again now, always keep asking "SO WHAT?" or "WHO CARES?" That will automatically make your paper significant and interesting both for you and the reader.

8. Research and Outline

We suggest you do your research before putting together an outline. You don't want to narrow yourself too much at this point. A very clear thesis or question gives you enough direction to keep you on task, but still leaves you open to new angles.

To conduct research, follow these three important steps:

- Understand the types of resource
- Critically read and evaluate those sources
- Take notes effectively

At the note-taking stage, it is also important to be on guard against plagiarism. Here are some specific tips on avoiding plagiarism.

- Paraphrase most of the time. That is, compress and write in your own words what you understand to be the basic meaning of a sentence or a block of text. As a composition teacher of mine always told our class, "always think of making notes instead of taking notes." Highlighting key passages or photocopying key pages can be good first steps towards extracting important information, but before you start your draft, translate and rewrite your notable research findings now. Don't count on doing it later when the temptation of keeping beautifully crafted sentences in the body of your paper (without acknowledgment) is even greater.

- Take care to distinguish among:
  - **Background** or commonly known facts in the field that you can assume your audience already knows (e.g., "Radio has evolved into an incredibly portable and music-based medium"). Your own knowledge acquired from a course makes you a great source of such background data!
  - **Other not-so-commonly known facts** such as statistics
  - **Opinions**, which are usually the most contentious of all. If Dr. Z "believes" something is the case, then record that he believes it.
  - Though you should limit this, if you absolutely must take a **direct quotation**, (1) change to a different colored pen, (2) put huge quotation marks around it, and (3) don't forget the page number and source. Don't count on remembering later that it was copied down word for word; you might accidentally believe you paraphrased it in which case careless plagiarism will probably take place.

Now it’s time to organize your research into an outline for your paper. An outline is the organizational plan for your paper. It shows you how you're going to get to where you want to go. For specifics see the Study Aid on Developing an Outline.

9. Writing the Paper

**Draft:** Believe it or not, drafting should be the least time-consuming step in the research paper process. Invention should take longer. Research should take longer. And revising should definitely take longer. If it's taking you a month of Sundays just to eke out a thousand words, two things could be happening:
You don't have any clue what you should be saying (in which case you don't have a focal point or outline yet and so are starting too early!) or . . .

You're revising while you draft so that you end up with one sentence an hour.

Revise: The point of revision is not that what you wrote was bad, but let's face it, not even professional writers tap out perfectly thought-out prose the first time at the keyboard. So now is the time to become your own audience and evaluate your work. Revision is RE-VISION. After letting your draft sit for a few days, look at your work with a new critical eye, critical for what doesn't work and what does.

Also, remember that revision is not proofreading. Revision deals with underlying issues and content while proofreading deals largely with surface details and presentation.

In the revision stage, ask yourself:

- Does your title give readers a good idea of what's to come? (Have you even come up with one yet? Remember, "Assignment #3" is not a title!)
- Is your thesis statement or research question clearly stated?
- Is there enough lead-in in the introduction to establish the importance of and context for the statement/question? Is there too much? By the end of the introduction, is it clear to the audience what kind of material will follow? If so, are these expectations fulfilled, that is, do you follow through?
- Is it clear where your introduction ends and body begins and where the body ends and the conclusion begins? In other words, are your paragraph indents meaningful?
- Are there transitions between sections and paragraphs to create flow and unity?
- Does each body paragraph have a topic sentence? If you took your thesis/question and all of your topic sentences, would they correspond to what you want to say in your paper? If not, do you need to revise your thesis/question or re-examine your subpoints?
- Do the topic sentences (1) make a connection back with the thesis/question, (2) establish a link with the previous paragraph's content (perhaps the chronological relationship, any comparisons/contrasts?) and (3) give enough information that the audience could guess where a particular paragraph's development would lead?
- With or without a formal concluding sentence, do you somewhere near the end of each paragraph remind readers why you are saying what you are saying by moving back up to abstract, general terms?
- Does the order of paragraphs make sense? (e.g., maybe the transitions seem forced because they aren't in the right order)
- Are your paragraphs too short (say, fewer than 4 sentences) or too long (longer than about 8)? Is there some combining or separating of issues that needs to take place? Or do you need to generate more content or delete irrelevant material?
- Are your examples reliable, representative, and convincing? Are there enough of them (or too many) to develop your idea in the word count you have available?
- Are your sources convincing? Is there enough balance between your own insights and expert opinions?
- Is anything that should be referenced, referenced?
- Are all sources and direct quotations explained?
- Has anything that goes off topic or is not essential (given your word limit) been cut? (TIP: whenever you know you have to cut something but you're finding it hard to do, cut and paste it in a separate file so that you feel it hasn't been obliterated. In a couple of weeks, you'll probably go back and wonder why you were so attached to the passage in the first place!)
- Does the conclusion say something different from your introduction? Does it leave a good, lasting impression or is it wishy-washy?
- Prepare a Works Cited or References list, using whichever style your instructor requested--usually MLA or APA. (See separate Study Aids on each style.) Set up footnotes or endnotes if you need them too.
10. Editing and Proofreading

Not only are the eyes of a peer great for catching blunders in final copy, but feedback from someone in your class is one of the best ways to revise either before or after you go over the copy yourself. The peer-editing method described below has been adapted from Janet Giltrow's *Academic Writing* [1995] and is called the Think-Aloud or Reader-Response method. In this method, the reader reads your paper aloud while you sit alongside taking notes. You do not interject, but simply record what your reader reports. Readers only come up with personal reactions and observations during the reading process; writers are the ones to flag problem areas for diagnosis. Only readers should speak. Good sections should also be commented upon.

After you have edited your paper, it’s time for a final proofread. Here's a checklist for some finishing touches:

- **Active vs. passive voice.** Don't feel you have to completely avoid the "passive" voice (e.g., "the ball was caught") but definitely try to have more subject-verb "active" sentences; they add power and agency to your writing (e.g., "Billy caught the ball").

- Also make sure your **verbs are in the right tense.** If you're talking about literature, keep the tense in what is called "the literary present." So a sentence in your essay to set up an example would read "When Hana tells Caravaggio about the English patient..." If you're writing a historical paper though, past tense is more suitable.

- Check for **non-sexist language,** especially in pronoun situations. The best way is to talk to your professors. You'll find some that say they don't mind the awkward "him/her" (or "him or her") split, others who prefer one over the other, and still others who want you to avoid the sticky scenario altogether.

- Check your **punctuation.**

- Look for glaring **grammatical flaws.** Be especially on the alert for mistakes you make often.

- Check your **word choice.** If you're looking for a better word, use a thesaurus.

- Check your **spelling** with both with a computer spell-checker and with your own eyes to catch those words that are spelled right but used in the wrong context (like there vs. their vs. they're).

- **Presentation:** Double space your lines, maintain 1-inch margins, start numbering pages on the second page of actual text, and prepare a title page with an original title in the center and your vital student info in the bottom right hand corner.

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