Writing Studio
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What Makes a Good Research Question?

Thompson Writing Program
DUKE UNIVERSITY

What is a Research Question?

A research question guides and centers your research. It should be clear and focused, as well as synthesize multiple sources to present *your unique* argument. Even if your instructor has given you a specific assignment, the research question should ideally be something that you are interested in or care about. Be careful to avoid the "all-about" paper and questions that can be answered in a few factual statements.

Examples:

1. For instance, the following question is too broad and does not define the segments of the analysis:

Why did the chicken cross the road?
(The question does not address which chicken or which road.)

2. Similarly, the following question could be answered by a hypothetical Internet search:

How many chickens crossed Broad Street in Durham, NC, on February 6, 2014?
(Ostensibly, this question could be answered in one sentence and does not leave room for analysis. It could, however, become data for a larger argument.)

3. A more precise question might be the following:

What are some of the environmental factors that occurred in Durham, NC between January and February 2014 that would cause chickens to cross Broad Street?
(This question can lead to the author taking a stand on which factors are significant, and allows the writer to argue to what degree the results are beneficial or detrimental.)

How Do You Formulate A Good Research Question?

Choose a general topic of interest, and conduct preliminary research on this topic in current periodicals and journals to see what research has already been done. This will help determine what kinds of questions the topic generates.

Once you have conducted preliminary research, consider: Who is the audience? Is it an academic essay, or will it be read by a more general public? Once you have conducted preliminary research, start asking open-ended "How?" "What?" and Why?" questions. Then evaluate possible responses to those questions.

Examples:

Say, for instance, you want to focus on social networking sites. After reading current research, you want to examine to what degree social networking sites are harmful. The Writing Center at George Mason University provides the following examples and explanations:

Possible Question: *Why are social networking sites harmful?*
An evaluation of this question reveals that the question is unclear: it does not specify which social networking sites or state what harm is being caused. Moreover, this question takes as a given that this "harm" exists. A clearer question would be the following:

Revised Question: *How are online users experiencing or addressing privacy issues on such social networking sites as Facebook and Twitter?*
This version not only specifies the sites (Facebook and Twitter), but also the type of harm (privacy issues) and who is harmed (online users).

While a good research question allows the writer to take an *arguable* position, it DOES NOT leave room for ambiguity.

Checklist of Potential Research Questions in the Humanities (from the Vanderbilt University Writing Center):

1) Is the research question something I/others care about? Is it arguable?
2) Is the research question a new spin on an old idea, or does it solve a problem?
3) Is it too broad or too narrow?
4) Is the research question researchable within the given time frame and location?
5) What information is needed?

Research Question in the Sciences and Social Sciences

While all research questions need to take a stand, there are additional requirements for research questions in the sciences and social sciences. That is, they need to have **repeatable** data. Unreliable data in the original research does not allow for a strong or arguable research question.

In addition, you need to consider what kind of problem you want to address. Is your research trying to accomplish one of these four goals?[1]

1) Define or measure a specific fact or gather facts about a specific phenomenon.
2) Match facts and theory.
3) Evaluate and compare two theories, models, or hypotheses.
4) Prove that a certain method is more effective than other methods.

Moreover, the research question should address what the variables of the experiment are, their relationship, and state something about the testing of those relationships. The Psychology department at California State University, Fresno, provides the following examples and explanations:

[1] David Porush, *A Short Guide to Writing About Science*. (New York: Harper Collins, 1995), 92-93.

forward? Why should the reader believe the points you have made? Would adding another, expert voice strengthen your argument? Who else agrees or disagrees with the ideas you have written? Have you paraphrased ideas that you have read or heard? If so, you need to cite them. Have you referred to or relied on course material to develop your ideass? If you, you need to cite it as well.

Step 2: How can you keep track of all this information? Improve your note-taking skills.

Once you've reconsidered your position on using citations, you need to rethink your note-taking practices. Taking careful notes is simply the best way to avoid plagiarism. And improving your note-taking skills will also allow you to refine your critical thinking skills. Here's how the process works:

1. Start by carefully noting all the bibliographic information you'll need for your works cited page. (See #3 for more details on how to determine exactly what information you'll need for different kinds of sources.) If you're photocopying an article or section out of a book or journal, why not photocopy the front pages of the source as well? That way you'll have the bibliographic information if you need it later. If you forget to gather the information for a book, you can usually get it from the library's online card catalogue. Simply pull up the entry for the book you used to see the bibliographic information on that source. If you're working on an article from a journal, you can return to the database from which you got the original citation to find the bibliographic information.

2. Next, try thinking about your notes as a kind of transitional "space" between what you've read and what you're preparing to write. Imagine yourself having a conversation with the author of the story/novel/play/poem/article/book you're reading, in which you repeatedly ask yourself the following questions:

   - *What* is the author trying to explain?
   - *Why* does s/he think these points are important?
   - *How* has s/he decided to construct the argument?
   - *How* does the structure of the argument affect the reader's response to the author's ideas?
   - How *effective* is the author's argument?

   Adopting this "conversational" approach to note-taking will improve your analysis of the material by leading you to notice not just what the author says, but also *how* and *why* the author communicates his or her ideas. This strategy will also help you avoid the very common temptation of thinking that the author's way of explaining something is much better than anything you could write. If you are tempted to borrow the author's language, write your notes *with the book closed* to ensure that you are putting the ideas into your own words. If you've already taken a step "away" from the author's words in your notes, you'll find it easier to use your own words in the paper you write.

3. Finally, be careful to use quotation marks to distinguish the exact words used by the author from your own words so that when you return to your notes later in the writing process, you won't have to guess which ideas are yours and which ones came directly from the text. You'll have to experiment with different note-taking techniques until you find the one that works best for you, but here's one example of how your notes might look:

   > **James Leoni, trans. Ten Books on Architecture by Leone Battista Alberti. London: Alec Tirani, Ltd., 1955. BOOK I, CHAPTER X: "Of the Columns and Walls, and Some Observations Relating to the Columns"** (p. 14). Alberti begins by talking about walls, and then says a row of columns is simply "a Wall open and discontinued in several Places;" he says the column supports the roof, and that columns are the most beautiful of the architectural elements; here, he'll address what columns have in common, and later he'll discuss their differences. (p. 14) all columns rest on a plinth (or dye), which supports a base, which supports the column, which is topped by a capital; columns are usually widest at the base, and taper toward the top; Alberti says the column was invented simply to hold up the roof, but men sought to make their buildings "immortal and eternal," so they embellished columns with architraves, entablatures, etc.

   Notice that you can adapt this note-taking strategy to any format - whether you prefer to take notes by hand, on note cards, on your computer, or some other way.

For more information on developing an effective note-taking technique, you can consult any grammar handbook. Here are a few particularly helpful ones:

- Leonard J. Rosen and Laurence Behren. The Allyn & Bacon Handbook. Boston: Allyn & Bacon, 1997. OR Allyn & Bacon online at: www.abacon.com
- Joseph Gibaldi. MLA Handbook for Writers of Research Papers. New York: The Modern Language Association of America, 1995.
- Kate L. Turabian. A Manual for Writers of Term Papers, Theses, and Dissertations. Chicago: University of Chicago Press, 1996.

Step 3: So many details, so little time! Locate the appropriate style manual.

Don't worry - no one can remember all the different citation conventions used in all the different university disciplines! Citing your sources appropriately is a matter of:

1. determining which style your instructor wants you to use
2. finding the appropriate style manual
3. copying the "formula" it gives for each type of source you use

First, carefully read the assignment to determine what citation style your instructor wants you

Welcome to the Purdue OWL

Contributors: Dana Lynn Driscoll, Allen Brizee.
Summary:

Evaluating sources of information is an important step in any research activity. This section provides information on evaluating bibliographic citations, aspects of evaluation, reading evaluation, print vs. Internet sources, and evaluating Internet sources.

Evaluating Sources: Overview

The world is full of information to be found—however, not all of it is valid, useful, or accurate. Evaluating sources of information that you are considering using in your writing is an important step in any research activity.

The quantity of information available is so staggering that we cannot know everything about a subject. For example, it's estimated that anyone attempting to research what's known about depression would have to read over 100,000 studies on the subject. And there's the problem of trying to decide which studies have produced reliable results.

Similarly, for information on other topics, not only is there a huge quantity available but with a very uneven level of quality. You don't want to rely on the news in the headlines of sensational tabloids near supermarket checkout counters, and it's just as hard to know how much to accept of what's in all the books, magazines, pamphlets, newspapers, journals, brochures, Web sites, and various media reports that are available. People want to convince you to buy their products, agree with their opinions, rely on their data, vote for their candidate, consider their perspective, or accept them as experts. In short, you have to sift and make decisions all the time, and you want to make responsible choices that you won't regret.

Evaluating sources is an important skill. It's been called an art as well as work—much of which is detective work. You have to decide where to look, what clues to search for, and what to accept. You may be overwhelmed with too much information or too little. The temptation is to accept whatever you find. But don't be tempted. Learning how to evaluate effectively is a skill you need both for your course papers and for your life.

When writing research papers, you will also be evaluating sources as you search for information. You will need to make decisions about what to search for, where to look, and once you've found material on your topic, if it is a valid or useful source for your writing.

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Evaluating Bibliographic Citations

When searching for information in library catalogues and online article databases such as *EbscoHost* or *Proquest Direct*, you will first find a bibliographic citation entry. A bibliographic citation provides relevant information about the author and publication as well as short summary of the text.

Before you read a source or spend time hunting for it, begin by looking at the following information in the citation to evaluate whether it's worth finding or reading.

Consider the author, the title of the work, the summary, where it is, and the timeliness of the entry. You may also want to look at the keywords to see what other categories the work falls into. Evaluate this information to see if it is relevant and valid for your research.

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Evaluation During Reading

After you have asked yourself some questions about the source and determined that it's worth your time to find and read that source, you can evaluate the material in the source as you read through it.

- Read the preface--What does the author want to accomplish? Browse through the table of contents and the index.This will give you an overview of the source. Is your topic covered in enough depth to be helpful? If you don't find your topic discussed, try searching for some synonyms in the index.
- Check for a list of references or other citations that look as if they will lead you to related material that would be good sources.
- Determine the intended audience. Are you the intended audience? Consider the tone, style, level of information, and assumptions the author makes about the reader. Are they appropriate for your needs?
- Try to determine if the content of the source is fact, opinion, or propaganda. If you think the source is offering facts, are the sources for those facts clearly indicated?
- Do you think there's enough evidence offered? Is the coverage comprehensive? (As you learn more and more about your topic, you will notice that this gets easier as you become more of an expert.)
- Is the language objective or emotional?

- Are there broad generalizations that overstate or oversimplify the matter?
- Does the author use a good mix of primary and secondary sources for information?
- If the source is opinion, does the author offer sound reasons for adopting that stance? (Consider again those questions about the author. Is this person reputable?)
- Check for accuracy.
- How timely is the source? Is the source twenty years out of date? Some information becomes dated when new research is available, but other older sources of information can be quite sound fifty or a hundred years later.
- Do some cross-checking. Can you find some of the same information given elsewhere?
- How credible is the author? If the document is anonymous, what do you know about the organization?
- Are there vague or sweeping generalizations that aren't backed up with evidence?
- Are arguments very one-sided with no acknowledgement of other viewpoints?

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Evaluating Print vs. Internet Sources

With the advent of the World Wide Web, we are seeing a massive influx of digital texts and sources. Understanding the difference between what you can find on the Web and what you can find in more traditional print sources is key to evaluating your sources.

Some sources such as journal or newspaper articles can be found in both print and digital format. However, much of what is found on the Internet does not have a print equivalent, and hence, has low or no quality standards for publication. Understanding the difference between the types of resources available will help you evaluate what you find.

Publication process

Print Sources: Traditional print sources go through an extensive publication process that includes editing and article review. The process has fact-checkers, multiple reviewers, and editors to ensure quality of publication.

Internet Sources: Anyone with a computer and access to the Internet can publish a Web site or electronic document. Most Web documents do not have editors, fact-checkers, or other types of reviewers.

Authorship and affiliations

Print Sources: Print sources clearly indicate who the author is, what organization(s) he or she is affiliated with, and when his or her work was published.

Internet Sources: Authorship and affiliations are difficult to determine on the Internet.

Some sites may have author and sponsorship listed, but many do not.

Sources and quotations

Print Sources: In most traditional publications, external sources of information and direct quotations are clearly marked and identified.

Internet Sources: Sources the author used or referred to in the text may not be clearly indicated in an Internet source.

Bias and special interests

Print Sources: While bias certainly exists in traditional publications, printing is more expensive and difficult to accomplish. Most major publishers are out to make a profit and will either not cater to special interest groups or will clearly indicate when they are catering to special interest groups.

Internet Sources: The purpose of the online text may be misleading. A Web site that appears to be factual may actually be persuasive and/or deceptive.

Author qualifications

Print Sources: Qualifications of an author are almost always necessary for print sources. Only qualified authors are likely to have their manuscripts accepted for publication.

Internet Sources: Even if the author and purpose of a website can be determined, the qualifications of the author are not always given.

Publication information

Print Sources: Publication information such as date of publication, publisher, author, and editor are always clearly listed in print publications.

Internet Sources: Dates of publication and timeliness of information are questionable on the Internet. Dates listed on Web sites could be the date posted, date updated, or a date may not be listed at all.