

done and displayed, but the operation is similar to that of a pastry chef who collects all the ingredients and spreads them out on the table without ever combining them into a pie. Your document is not complete until you've synthesized the research into focused and well-supported conclusions.

Avoiding Plagiarism

Another problem that researchers face when they have collected information from a variety of sources is the possibility of plagiarism—representing someone else's words or ideas as your own. When you've read extensively what others have written about your subject, it can be tempting to simply lift their words and ideas and weave them into your document. A common form of such plagiarism occurs when writers either misunderstand how to properly document their sources, or they intentionally paste together direct quotations from several sources hoping that the mix of quoted material will disguise the fact that the information is stolen.

You have committed plagiarism when you

- copy a phrase, a sentence, or a longer passage from a source and do not give credit to the original author;
- summarize or paraphrase someone else's ideas without acknowledging the source;
- allow someone else to write significant portions of your document for you without admitting to the help; and
- forget to place quotations around another writer's words.

To avoid the problem of accidental plagiarism, get into the habit of clearly documenting the words and ideas you obtain from other sources during the research phase. Be sure to put quotation marks around any direct quotations as you write them down in your notes and identify the originator of any ideas you plan to use, even if you plan to summarize or paraphrase those ideas in your own words.

It's also important to be aware of when acknowledging your source is *not* necessary. You do not need to document the following:

- Your own independent ideas and words
- "Common knowledge" (information known and readily available to most people, such as information in encyclopedias or other reference guides that do not contain original thought or individual arguments)
- "Common sense" observations (something most people know—for example, that radioactive material is dangerous)

➤ *If you are unsure about whether to credit the original source, play it safe and provide documentation.*

One rule of thumb should serve as a guideline: Plagiarism in any form is theft. If you understand that rule and you understand that plagiarism is not only illegal but vastly unfair to the original author, then the dilemma of whether to take someone else's work and use it without crediting the author is an ethical choice you make from your own moral standards (see Chapter 16: Considering Ethical Issues). If

you get caught, your ethical credibility is undermined and you may face legal charges. If you plagiarize and don't get caught, you have missed the opportunity to contribute your own ideas to the body of knowledge about your subject, and you have essentially agreed to live as a fraud.

DOCUMENTING SOURCES

Professional research requires careful, thorough documentation of all ideas and information obtained from other sources. Anytime you include in your document material that you've researched, you need to give proper credit to the original source. Unfortunately, there is no one standard method for citing sources. The most common for technical and scientific documents are the style formats published by the AMA (American Medical Association), the APA (American Psychological Association), the CBE (Council of Biology Editors), the IEEE (Institute of Electrical and Electronic Engineers), and the University of Chicago Press (*Chicago Manual of Style*). Check with your department head, instructor, or supervisor for the system used in your situation.

- *Only if the information is general enough to be found in three or more sources and/or the encyclopedia can you use it without documentation. Even then, if the information is a direct quote, you must always indicate where you found it.*

The following examples show you how to document most sources in each of these formats. Note that the examples give the method for citing the source within the document's text, and then the method for listing the references at the end of the document. Remember that you must include both in-text citations and a list of sources at the end of the text, no matter which documentation system you use. If you are citing electronic sources, the in-text citation is the same as for hardcopy sources, but the list of sources at the end of the text must include additional information about what kind of electronic source was used and must specify the address of the information.

AMA (American Medical Association)

In-Text Citations Information within the text is signaled with a superscript number at the end of the cited material, corresponding to a numbered list of sources at the end of the text. Here is a complete entry for each numbered reference:

The mechanism of action of cyanide occurs by dissociation to hydrogen cyanide, which blocks electron transport by inhibiting the cytochrome a_3 step of P-450 metabolism.

The list of sources cited in the text appears at the end of the work and is titled "References." There is a complete, indented entry for every numbered reference in the text.