Incorporating Sources into Research Writing

Students are frequently asked to write research papers on a variety of topics, and one of the typical requirements is that the student includes *credible outside sources*. A source is deemed credible if it is scholarly, which signifies that the author is an expert in his or her field, and the source has likely been peer-reviewed. For a more in-depth discussion of source credibility, review the Guide to Writing a Research Paper handout available on the Academic Center for Excellence's website. Often the most challenging aspect of writing this type of paper is determining how to integrate these sources into the paper effectively. This handout will address the issue of incorporating sources into research writing, providing some strategies and tips for best using and integrating sources.

Research Paper Overview

Before discussing how to best incorporate sources, it is important to understand the purpose of a research paper. For a research paper, students are expected to research a particular topic and find a number of sources that either offer general information or advocate a stance regarding the topic. There are multiple types of research papers, such as a *report*, a *textual analysis*, or an *argument*. Depending on which type of research paper is being written, the student will use his or her sources differently (more detail will be given later); however, regardless of the type of research paper, it will always be the *student's* paper. It is important to note that, even though outside sources are being discussed, the student's voice should be heard clearly throughout the essay. The instructor and readers want to know what the student has to say on the topic, not just what others have already said. Sources should be used to enhance and support—not replace—the student's ideas.

Note. For more information on research papers, see the Guide to Writing a Research Paper handout on the Academic Center for Excellence's website. For specific information on research papers for the sciences, see the Academic Center for Excellence's Writing a Formal Lab Report and Writing a Formal Research Paper in the Social Sciences handouts.

Research Writing Process

While there is not necessarily a concrete order of steps to follow when writing a research paper, the steps outlined below can help make the process smoother:

1. **Brainstorm a topic and research questions.** Choose a topic to explore, and think about potential questions to ask about that topic. If the general topic is obesity, for example, the following questions are appropriate:
   a. What is the obesity rate in the U.S.? How does it compare to the obesity rate in other countries?
   b. Has the rate of obesity changed in recent years?
   c. What does research suggest as the main factors of obesity?
   d. What can be done to lower obesity rates? Should action be taken on a personal, social, and/or governmental level?

2. **Conduct preliminary research.** It is important to be sure that there is enough reliable information available on the potential topic *prior* to writing the paper. Efficiently integrating sources later in the writing process is much easier when a student conducts preliminary research and determines how sources fit in with her or his ideas from the start. If finding credible sources for the topic proves too difficult, the topic should be revised or a new topic should be explored. The Guide to Writing a Research Paper handout on the Academic Center for Excellence's website provides additional information about conducting preliminary research and source reliability.

3. **Narrow the topic and create a working thesis.** Once a topic and general research question(s) have been chosen, try to narrow the topic to find a specific focus. Create a working thesis statement to guide the paper. For additional information on writing a strong thesis statement, review the Creating a Thesis Statement handout on Academic Center for Excellence's website.

4. **Begin writing with the thesis and sources in mind.** Now that there is a clear thesis statement, guided by preliminary research, it is time to begin writing the paper. Having a few

sources and a thesis statement *before* writing makes it much easier to write an organized, focused paper.

5. **Conduct further research if needed.** Preliminary research is only the start of the research process. Often, while writing the paper, the student will realize that more sources are needed or discover that better sources are available. The student can always add or change sources during any point of the writing process as necessary.

Using Sources

Sources can be utilized for various purposes: presenting facts or statistics, serving as evidence to support an argument, lending authority to an argument or idea, providing examples and illustrations, stating an opposing viewpoint, and so on. For every source, the student must determine the purpose of that source and how to best incorporate it into the paper. Both aspects are crucial to effectively integrating sources throughout the paper.

Note. Every source used MUST be cited in the format specified by the instructor (typically APA Format, MLA Format, or Chicago Style). Failing to cite sources properly can result in plagiarism, so it is imperative that all information obtained from sources is documented. Visit Academic Center for Excellence's website for handouts on formatting and citations, such as the APA Format Guide, the MLA Format guide, the Chicago Manual Style Format, and the Chicago Style Citation Guide.

Determining the purpose of a source. Sources should never be included in a paper without serving a predetermined purpose. Always be able to explain why each source was chosen and what it contributes to the paper. The following questions and tips adapted from the online Harvard Guide to Using Sources can be used when deciding the purpose of a source:

✓ **Did the instructor provide directions for how to use sources in the paper?** An instructor may provide guidelines or indicate that students should use a source in a particular way. For example, students may be required to have one source that provides background information, one that serves as evidence, and one that gives a counterargument. Always read

the assignment carefully before finding sources, as there are usually specifications for number and possibly type(s) of sources.

✓ **Does the source provide background information or context that will help readers understand the topic?** Often it is helpful to supply background information prior to presenting an argument since some readers may not be familiar with the topic being discussed. In this case, use the source(s) to give enough information that the readers can get a general sense of the issue or topic and fully understand the position taken later in the paper. For instance, it might be beneficial to explain a relevant theory or provide some history for a subject before making an argument about the topic.

✓ **Is the source supplying evidence for or helping to develop an argument?** Sources frequently are used to provide evidence for an argument, which can be done in various ways. For example, a source could provide relevant statistics or show research findings that back up a claim. Additionally, sources can help develop or craft an argument by changing the author's perspective on an issue or asking a challenging question that could be explored.

✓ **Is the source providing support from an expert or authority on the topic for an argument being made in the paper?** Using an authority or expert on a topic to support an argument can lend credibility to the position. A reader is likely going to take a claim more seriously if he or she knows that a respected, qualified figure holds the same or a similar view. If a source makes the same argument as is made in the current paper, try to contribute to the discussion by expanding upon, adding to, or making a slight change to the argument presented by the source.

✓ **Is the source presenting a counterargument or serving as opposition to the thesis?** Addressing the opposition is an important part of argumentation; always know both sides of an issue. Using a source to help make a counterargument shows readers that the author is aware of and prepared to respond to the opposition. Failing to mention a differing viewpoint suggests that the author cannot refute the claim, which makes the argument weaker.

Choosing how a source will be incorporated. After the purpose of the source has been decided, the next step is to figure out how it will be incorporated into the paper. The three main ways to

incorporate a source are *summarizing, paraphrasing,* and *quoting.* Depending on why the source is being used, one method may be more appropriate than another.

Note. All three methods of incorporating sources require citations.

➢ ***Summarizing.*** A summary should concisely capture the key points of a text. Since summarizing requires presenting all of the main ideas in a more cursory way, the summary will be shorter than the original text. Summarize a source when the entire text is relevant to the discussion. For example, if a student is asked to write an analysis based upon a specific article, readers would need an overview of the entire source in order to understand the argument being made in the student's essay.

➢ ***Paraphrasing****.* Paraphrasing requires rewording the relevant idea(s) from a source, crediting the idea to the original author while making the phrasing one's own. A paraphrase is approximately the same length as the portion of the original text being cited, since it should have the same amount of detail. It is best to paraphrase when the original wording is not essential to understanding the concept under discussion. When citing information from a journal article or a portion of an argument, for instance, paraphrasing is often appropriate.

➢ ***Quoting.*** Quotes are used when the original wording of the text is important to the discussion. For example, dissecting word choice in a literary analysis may be an important part of the argument, so a direct quote containing the original phrasing would be essential. Do not forget to enclose all direct quotes in quotation marks.

Integrating Seamlessly

Sources should be used to enhance and support the author's idea or argument, meaning they need to be *integrated* into the paper. It can be difficult to work sources into the paper smoothly. In order to help with this process, the following section presents a paragraph outline and a sample paragraph, as well as general tips for incorporating sources into a research paper.

Paragraph Structure

For a source to be used effectively, it needs to be embedded into a paragraph, allowing the material to be introduced and analyzed. Observing a general outline can help ensure that the source is put into context. The following outline provides an example of how to structure a paragraph that contains source material:

1. **Topic Sentence.** Paragraphs should always have a topic sentence that helps the reader understand the purpose of that paragraph. When dealing with source material, it is important to have a topic sentence that contextualizes the information being introduced. The reader needs to know how the source material fits into the topic being discussed. More information about writing topic sentences can be found in the Controlling Idea/Topic Sentences handout on Academic Center for Excellence's website.

2. **Introduce.** After writing a topic sentence, briefly introduce the source. Identify any important information about the source material, such as the author and/or pertinent background information. Use signal phrases to introduce source material; for example, words like *states, suggests, claims, argues,* and *responds* can be used to signal to a reader that a quote or paraphrase is being introduced.

3. **Use and Cite.** Now that the information has been set up properly with a topic sentence and brief introduction, it is time to actually use the source material. Do not forget to include an in-text citation in the designated format after using information from a source.

4. **Analyze.** Merely utilizing the source material does not mean the work is finished. The most important step is the last: analyzing. Every time source material is used, it *must* be analyzed. Readers need to clearly understand why the source was chosen. How is the information relevant to the topic? How does the material support the author's main idea? The answers to these questions make up the conclusion of the paragraph.

Below is a sample paragraph from *The College Writer's Handbook* by VanderMey, Meyer, Van Rys, and Sebranek (492) that utilizes the paragraph structure described in this section:

Introduction to source

Analysis

Topic sentence

Source material and citation

The motivation and urgency to create and improve hybrid-electric technology comes from a range of complex forces. Some of these forces are economic, others environmental, and still others social. In "Societal lifestyle costs of cars with alternative fuels/engines," Joan Ogden, Robert Williams, and Eric Larson argue that "[c]ontinued reliance on current transportation fuels and technologies poses serious oil supply insecurity, climate change, and urban air pollution risks" (7). Because of the nonrenewable nature of fossil fuels as well as their negative side effects, the transportation industry is confronted with making the most radical changes since the introduction of the internal-combustion automobile more than 100 years ago. Hybrid-electric vehicles are one response to this pressure.

Note. The in-text citation within the above paragraph is in MLA format.

General Tips

o **Be selective.** When using an outside source, only include *relevant* information. Not everything in the original text will pertain to the current paper, so be selective when deciding which information should be included and which should be left out altogether. Sometimes only a sentence or two from the original source is relevant to the student's paper.

o **Be concise.** Stay focused and on-topic, making sure that all information ties back to the thesis statement. Once again, the paper is *the student's* paper, meaning the focus should not be on others' thoughts but instead on the student's. The purpose of using outside sources is to incorporate them into the paper as support.

o **Do not overuse sources.** While it is perfectly acceptable to use a source more than once if there are multiple ideas or arguments that apply, do not use the same source too frequently. A variety of sources should be included throughout the paper. The more sources there are that back up an idea or argument, the more credible it will be. If one source is overused, it can appear as though it is the only source that could be found to support the position presented.

o **Do not overuse quotes.** Students often like to use quotes, thinking that it is easier to directly quote the original author than it is to paraphrase; however, a source must always be

put into context and explained, which is often more difficult with a quote than a paraphrase. As discussed earlier, quoting is a viable strategy only when the original author's exact words are relevant to the discussion. Quoting from a source without having a distinct reason for doing so looks sloppy and disjointed. Do not quote simply to avoid paraphrasing.

o **Can use more than one source per paragraph.** Although the paragraph structure discussed earlier only demonstrated the use of one source per paragraph, citing multiple sources per paragraph is fine as well. Some sources may cover similar concepts or be on the same side of an argument and work well together, in which case it could be best to include them in the same paragraph. This structure is especially applicable in the sciences. (See the example paragraph in the next section.)

Scientific Research Writing

The primary focus of this handout has been integrating sources into research papers for the humanities; however, it should be noted that source incorporation works a bit differently in the sciences. The key in the sciences is avoiding over-explanation of the sources. Sources are contextualized within a paragraph with topic sentences before being used and analyzed, but they are not necessarily *explained*. The following points demonstrate the differences between writing for the humanities and the sciences:

o **Choosing how a source will be incorporated.** While paraphrasing, summarizing, and quoting are all legitimate ways of incorporating sources in the humanities, the sciences tend to be stricter about how a source is integrated. Quotes are discouraged in scientific research papers. Summaries are somewhat rare, unless one is conducting a meta-analysis or the like. Paraphrases are more common, but it is most common to cite general information from a source rather than rewording a specific sentence. In a scientific paper, statistics, general claims, and outcomes of studies are often cited; the entire article or study is typically not summarized, and a specific sentence or section is not necessarily rephrased. See the example paragraph below for clarification, as this concept may be difficult to grasp without seeing it in action.

o **Paragraph structure.** Since the purpose of scientific research is the results, the author and other origin information is not explicitly provided to introduce the information. The focus should remain on the actual research, as opposed to who conducted it and why. All other aspects of the paragraph outline detailed earlier in this handout apply.

The following paragraph provided on Penn State University's website demonstrates how to successfully use source material in a scientific essay:

> The millions of species of plants and animals on the earth have a phenomenal influence on the human species. Not only do they provide a substantial amount of our food, they are of great value in medicine and science. Over 60 percent of the purchases we make at the pharmacy contain substances that are derived from wild organisms (Myers 2008). Studies of plants and animals have led to discoveries in virtually all of the sciences, from biology and chemistry to psychology and astronomy (Wilson 2001). Furthermore, plants and animals are vital to the maintenance of our ecosystem. Their diversity and balance directly control food webs, nutrient diversity, supplies of fresh water, climate consistency, and waste disposal (Eberly 1988). Finally, many species act as barometers of our environment. The salmon, for example, is extremely sensitive to changes in the condition of the water in which it lives. Any abnormality in population or behavior of fish usually indicates some type of chemical imbalance in the water. The same is true of butterflies and their responses to the environment within prominent agricultural areas. Clearly, the millions of species of plants and animals in the world are vital to the continued thriving of the human population.

Note. The author used a general author-year system in the above paragraph for in-text citations.