

## 12.1 Creating a Rough Draft for a Research Paper

### LEARNING OBJECTIVES

1. Apply strategies for drafting an effective introduction and conclusion.
2. Identify when and how to summarize, paraphrase, and directly quote information from research sources.
3. Apply guidelines for citing sources within the body of the paper and the bibliography.
4. Use primary and secondary research to support ideas.
5. Identify the purposes for which writers use each type of research.

At last, you are ready to begin writing the rough draft of your research paper. Putting your thinking and research into words is exciting. It can also be challenging. In this section, you will learn strategies for handling the more challenging aspects of writing a research paper, such as integrating material from your sources, citing information correctly, and avoiding any misuse of your sources.

### The Structure of a Research Paper

Research papers generally follow the same basic structure: an introduction that presents the writer's thesis, a body section that develops the thesis with supporting points and evidence, and a conclusion that revisits the thesis and provides additional insights or suggestions for further research.

Your writing voice will come across most strongly in your introduction and conclusion, as you work to attract your readers' interest and establish your thesis. These sections usually do not cite sources at length. They focus on the big picture, not specific details. In contrast, the body of your paper will cite sources extensively. As you present your ideas, you will support your points with details from your research.

### Writing Your Introduction

There are several approaches to writing an introduction, each of which fulfills the same goals. The introduction should get readers' attention, provide background information, and present the writer's thesis. Many writers like to begin with one of the following catchy openers:

- A surprising fact
- A thought-provoking question
- An attention-getting quote
- A brief anecdote that illustrates a larger concept
- A connection between your topic and your readers' experiences

The next few sentences place the opening in context by presenting background information. From there, the writer builds toward a thesis, which is traditionally placed at the end of the introduction. Think of your thesis as a signpost that lets readers know in

what direction the paper is headed.

Jorge decided to begin his research paper by connecting his topic to readers' daily experiences. Read the first draft of his introduction. The thesis is underlined. Note how Jorge progresses from the opening sentences to background information to his thesis.

## Beyond the Hype: Evaluating Low-Carb Diets

### I. Introduction

Over the past decade, increasing numbers of Americans have jumped on the low-carb bandwagon. Some studies estimate that approximately 40 million Americans, or about 20 percent of the population, are attempting to restrict their intake of food high in carbohydrates (Sanders and Katz, 2004; Hirsch, 2004). Proponents of low-carb diets say they are not only the most effective way to lose weight, but they also yield health benefits such as lower blood pressure and improved cholesterol levels. Meanwhile, some doctors claim that low-carb diets are overrated and caution that their long-term effects are unknown. Although following a low-carbohydrate diet can benefit some people, these diets are not necessarily the best option for everyone who wants to lose weight or improve their health.

## EXERCISE 1

Write the introductory paragraph of your research paper. Try using one of the techniques listed in this section to write an engaging introduction. Be sure to include background information about the topic that leads to your thesis.

### Tip

Writers often work out of sequence when writing a research paper. If you find yourself struggling to write an engaging introduction, you may wish to write the body of your paper first. Writing the body sections first will help you clarify your main points. Writing the introduction should then be easier. You may have a better sense of how to introduce the paper after you have drafted some or all of the body.

## Writing Your Conclusion

In your introduction, you tell readers where they are headed. In your conclusion, you recap where they have been. For this reason, some writers prefer to write their conclusions soon after they have written their introduction. However, this method may not work for all writers. Other writers prefer to write their conclusion at the end of the paper, after writing the body paragraphs. No process is absolutely right or absolutely wrong; find the one that best suits you.

No matter when you compose the conclusion, it should sum up your main ideas and revisit your thesis. The conclusion should not simply echo the introduction or rely on bland summary statements, such as "In this paper, I have demonstrated that...." In fact,

avoid repeating your thesis verbatim from the introduction. Restate it in different words that reflect the new perspective gained through your research. That helps keep your ideas fresh for your readers. An effective writer might conclude a paper by asking a new question the research inspired, revisiting an anecdote presented earlier, or reminding readers of how the topic relates to their lives.

## Writing at Work

If your job involves writing or reading scientific papers, it helps to understand how professional researchers use the structure described in this section. A scientific paper begins with an abstract that briefly summarizes the entire paper. The introduction explains the purpose of the research, briefly summarizes previous research, and presents the researchers' hypothesis. The body provides details about the study, such as who participated in it, what the researchers measured, and what results they recorded. The conclusion presents the researchers' interpretation of the data, or what they learned.

## Using Source Material in Your Paper

One of the challenges of writing a research paper is successfully integrating your ideas with material from your sources. Your paper must explain what you think, or it will read like a disconnected string of facts and quotations. However, you also need to support your ideas with research, or they will seem insubstantial. How do you strike the right balance?

You have already taken a step in the right direction by writing your introduction. The introduction and conclusion function like the frame around a picture. They define and limit your topic and place your research in context.

In the body paragraphs of your paper, you will need to integrate ideas carefully at the paragraph level and at the sentence level. You will use topic sentences in your paragraphs to make sure readers understand the significance of any facts, details, or quotations you cite. You will also include sentences that transition between ideas from your research, either within a paragraph or between paragraphs. At the sentence level, you will need to think carefully about how you introduce paraphrased and quoted material.

Earlier you learned about summarizing, paraphrasing, and quoting when taking notes. In the next few sections, you will learn how to use these techniques in the body of your paper to weave in source material to support your ideas.

## Summarizing Sources

When you **summarize** material from a source, you zero in on the main points and restate them concisely in your own words. This technique is appropriate when only the major ideas are relevant to your paper or when you need to simplify complex information into a few key points for your readers.

Be sure to review the source material as you summarize it. Identify the main idea and restate it as concisely as you can—preferably in one sentence. Depending on your

purpose, you may also add another sentence or two condensing any important details or examples. Check your summary to make sure it is accurate and complete.

In his draft, Jorge summarized research materials that presented scientists' findings about low-carbohydrate diets. Read the following passage from a trade magazine article and Jorge's summary of the article.

## Assessing the Efficacy of Low-Carbohydrate Diets

Adrienne Howell, Ph.D.

Over the past few years, a number of clinical studies have explored whether high-protein, low-carbohydrate diets are more effective for weight loss than other frequently recommended diet plans, such as diets that drastically curtail fat intake (Pritikin) or that emphasize consuming lean meats, grains, vegetables, and a moderate amount of unsaturated fats (the Mediterranean diet). A 2009 study found that obese teenagers who followed a low-carbohydrate diet lost an average of 15.6 kilograms over a six-month period, whereas teenagers following a low-fat diet or a Mediterranean diet lost an average of 11.1 kilograms and 9.3 kilograms respectively. Two 2010 studies that measured weight loss for obese adults following these same three diet plans found similar results. Over three months, subjects on the low-carbohydrate diet plan lost anywhere from four to six kilograms more than subjects who followed other diet plans.

### Summary

In three recent studies, researchers compared outcomes for obese subjects who followed either a low-carbohydrate diet, a low-fat diet, or a Mediterranean diet and found that subjects following a low-carbohydrate diet lost more weight in the same time (Howell, 2010).

### Tip

A summary restates ideas in your own words—but for specialized or clinical terms, you may need to use terms that appear in the original source. For instance, Jorge used the term *obese* in his summary because related words such as *heavy* or *overweight* have a different clinical meaning.

## EXERCISE 2

On a separate sheet of paper, practice summarizing by writing a one-sentence summary of the same passage that Jorge already summarized.

### Paraphrasing Sources

When you **paraphrase** material from a source, restate the information from an entire sentence or passage in your own words, using your own original sentence structure. A paraphrased source differs from a summarized source in that you focus on restating the ideas, not condensing them.

Again, it is important to check your paraphrase against the source material to make sure it is both accurate and original. Inexperienced writers sometimes use the thesaurus method of paraphrasing—that is, they simply rewrite the source material, replacing most of the words with synonyms. This constitutes a misuse of sources. A true paraphrase restates ideas using the writer’s own language and style.

In his draft, Jorge frequently paraphrased details from sources. At times, he needed to rewrite a sentence more than once to ensure he was paraphrasing ideas correctly. Read the passage from a website. Then read Jorge’s initial attempt at paraphrasing it, followed by the final version of his paraphrase.

### Source

Dieters nearly always get great results soon after they begin following a low-carbohydrate diet, but these results tend to taper off after the first few months, particularly because many dieters find it difficult to follow a low-carbohydrate diet plan consistently.

### Summary

People usually see encouraging outcomes shortly after they go on a low-carbohydrate diet, but their progress slows down after a short while, especially because most discover that it is a challenge to adhere to the diet strictly (Heinz, 2009).

After reviewing the paraphrased sentence, Jorge realized he was following the original source too closely. He did not want to quote the full passage verbatim, so he again attempted to restate the idea in his own style.

### Summary

Because it is hard for dieters to stick to a low-carbohydrate eating plan, the initial success of these diets is short-lived (Heinz, 2009).

## EXERCISE 3

On a separate sheet of paper, follow these steps to practice paraphrasing.

1. Choose an important idea or detail from your notes.
2. Without looking at the original source, restate the idea in your own words.
3. Check your paraphrase against the original text in the source. Make sure both your language and your sentence structure are original.

## Quoting Sources Directly

Most of the time, you will summarize or paraphrase source material instead of quoting directly. Doing so shows that you understand your research well enough to write about it confidently in your own words. However, direct quotes can be powerful when used sparingly and with purpose.

Quoting directly can sometimes help you make a point in a colorful way. If an author's words are especially vivid, memorable, or well phrased, quoting them may help hold your reader's interest. Direct quotations from an interviewee or an eyewitness may help you personalize an issue for readers. And when you analyze primary sources, such as a historical speech or a work of literature, quoting extensively is often necessary to illustrate your points. These are valid reasons to use quotations.

Less experienced writers, however, sometimes overuse direct quotations in a research paper because it seems easier than paraphrasing. At best, this reduces the effectiveness of the quotations. At worst, it results in a paper that seems haphazardly pasted together from outside sources. Use quotations sparingly for greater impact.

When you do choose to quote directly from a source, follow these guidelines:

- Make sure you have transcribed the original statement accurately.
- Represent the author's ideas honestly. Quote enough of the original text to reflect the author's point accurately.
- Never use a stand-alone quotation. Always integrate the quoted material into your own sentence.
- Use ellipses (...) if you need to omit a word or phrase. Use brackets [ ] if you need to replace a word or phrase.
- Make sure any omissions or changed words do not alter the meaning of the original text. Omit or replace words only when absolutely necessary to shorten the text or to make it grammatically correct within your sentence.
- Remember to include correctly formatted citations that follow the assigned style guide.

Jorge interviewed a dietician as part of his research, and he decided to quote her words in his paper. Read an excerpt from the interview and Jorge's use of it, which follows.

### Source

Personally, I don't really buy into all of the hype about low-carbohydrate miracle diets like Atkins and so on. Sure, for some people, they are great, but for most, any sensible eating and exercise plan would work just as well.

### Summary

Registered dietician Dana Kwon (2010) admits, "Personally, I don't really buy into all

of the hype....Sure, for some people, [low-carbohydrate diets] are great, but for most, any sensible eating and exercise plan would work just as well."

Notice how Jorge smoothly integrated the quoted material by starting the sentence with an introductory phrase. His use of ellipses and brackets did not change the source's meaning.

## Documenting Source Material

Throughout the writing process, be scrupulous about documenting information taken from sources. The purpose of doing so is twofold:

1. To give credit to other writers or researchers for their ideas
2. To allow your reader to follow up and learn more about the topic if desired

You will cite sources within the body of your paper and at the end of the paper in your bibliography. For this assignment, you will use the citation format used by the American Psychological Association (also known as APA style). For information on the format used by the Modern Language Association (MLA style), see [Chapter 13 "APA and MLA Documentation and Formatting"](#).

## Citing Sources in the Body of Your Paper

**In-text citations** document your sources within the body of your paper. These include two vital pieces of information: the author's name and the year the source material was published. When quoting a print source, also include in the citation the page number where the quoted material originally appears. The page number will follow the year in the in-text citation. Page numbers are necessary only when content has been directly quoted, not when it has been summarized or paraphrased.

Within a paragraph, this information may appear as part of your introduction to the material or as a parenthetical citation at the end of a sentence. Read the examples that follow. For more information about in-text citations for other source types, see [Chapter 13 "APA and MLA Documentation and Formatting"](#).

### Summary

Leibowitz (2008) found that low-carbohydrate diets often helped subjects with Type II diabetes maintain a healthy weight and control blood-sugar levels.

The introduction to the source material includes the author's name followed by the year of publication in parentheses.

### Summary

Low-carbohydrate diets often help subjects with Type II diabetes maintain a healthy weight and control blood-sugar levels (Leibowitz, 2008).

The parenthetical citation at the end of the sentence includes the author's name, a comma, and the year the source was published. The period at the end of the sentence comes after the parentheses.

## Creating a List of References

Each of the sources you cite in the body text will appear in a **references list** at the end of your paper. While in-text citations provide the most basic information about the source, your references section will include additional publication details. In general, you will include the following information:

- The author's last name followed by his or her first (and sometimes middle) initial
- The year the source was published
- The source title
- For articles in periodicals, the full name of the periodical, along with the volume and issue number and the pages where the article appeared

Additional information may be included for different types of sources, such as online sources. For a detailed guide to APA or MLA citations, see [Chapter 13 "APA and MLA Documentation and Formatting"](#). A sample reference list is provided with the final draft of Jorge's paper later in this chapter.

## Using Primary and Secondary Research

As you write your draft, be mindful of how you are using primary and secondary source material to support your points. Recall that primary sources present firsthand information. Secondary sources are one step removed from primary sources. They present a writer's analysis or interpretation of primary source materials. How you balance primary and secondary source material in your paper will depend on the topic and assignment.

## Using Primary Sources Effectively

Some types of research papers must use primary sources extensively to achieve their purpose. Any paper that analyzes a primary text or presents the writer's own experimental research falls in this category. Here are a few examples:

- A paper for a literature course analyzing several poems by Emily Dickinson
- A paper for a political science course comparing televised speeches delivered by two presidential candidates
- A paper for a communications course discussing gender biases in television commercials
- A paper for a business administration course that discusses the results of a survey the writer conducted with local businesses to gather information about their work-from-home and flextime policies
- A paper for an elementary education course that discusses the results of an experiment the writer conducted to compare the effectiveness of two different methods of mathematics instruction

For these types of papers, primary research is the main focus. If you are writing about a work (including nonprint works, such as a movie or a painting), it is crucial to gather information and ideas from the original work, rather than relying solely on others' interpretations. And, of course, if you take the time to design and conduct your own field



research, such as a survey, a series of interviews, or an experiment, you will want to discuss it in detail. For example, the interviews may provide interesting responses that you want to share with your reader.

## Using Secondary Sources Effectively

For some assignments, it makes sense to rely more on secondary sources than primary sources. If you are not analyzing a text or conducting your own field research, you will need to use secondary sources extensively.

As much as possible, use secondary sources that are closely linked to primary research, such as a journal article presenting the results of the authors' scientific study or a book that cites interviews and case studies. These sources are more reliable and add more value to your paper than sources that are further removed from primary research. For instance, a popular magazine article on junk-food addiction might be several steps removed from the original scientific study on which it is loosely based. As a result, the article may distort, sensationalize, or misinterpret the scientists' findings.

Even if your paper is largely based on primary sources, you may use secondary sources to develop your ideas. For instance, an analysis of Alfred Hitchcock's films would focus on the films themselves as a primary source, but might also cite commentary from critics. A paper that presents an original experiment would include some discussion of similar prior research in the field.

Jorge knew he did not have the time, resources, or experience needed to conduct original experimental research for his paper. Because he was relying on secondary sources to support his ideas, he made a point of citing sources that were not far removed from primary research.

### Tip

Some sources could be considered primary or secondary sources, depending on the writer's purpose for using them. For instance, if a writer's purpose is to inform readers about how the No Child Left Behind legislation has affected elementary education, a *Time* magazine article on the subject would be a secondary source. However, suppose the writer's purpose is to analyze how the news media has portrayed the effects of the No Child Left Behind legislation. In that case, articles about the legislation in news magazines like *Time*, *Newsweek*, and *US News & World Report* would be primary sources. They provide firsthand examples of the media coverage the writer is analyzing.

## Avoiding Plagiarism

Your research paper presents your thinking about a topic, supported and developed by other people's ideas and information. It is crucial to always distinguish between the two—as you conduct research, as you plan your paper, and as you write. Failure to do so can lead to plagiarism.

### Intentional and Accidental Plagiarism

**Plagiarism** is the act of misrepresenting someone else's work as your own. Sometimes a

writer plagiarizes work on purpose—for instance, by purchasing an essay from a website and submitting it as original course work. In other cases, a writer may commit accidental plagiarism due to carelessness, haste, or misunderstanding. To avoid unintentional plagiarism, follow these guidelines:

- Understand what types of information must be cited.
- Understand what constitutes fair use of a source.
- Keep source materials and notes carefully organized.
- Follow guidelines for summarizing, paraphrasing, and quoting sources.

## When to Cite

Any idea or fact taken from an outside source must be cited, in both the body of your paper and the references list. The only exceptions are facts or general statements that are common knowledge. Common-knowledge facts or general statements are commonly supported by and found in multiple sources. For example, a writer would not need to cite the statement that most breads, pastas, and cereals are high in carbohydrates; this is well known and well documented. However, if a writer explained in detail the differences among the chemical structures of carbohydrates, proteins, and fats, a citation would be necessary. When in doubt, cite.

## Fair Use

In recent years, issues related to the fair use of sources have been prevalent in popular culture. Recording artists, for example, may disagree about the extent to which one has the right to sample another's music. For academic purposes, however, the guidelines for fair use are reasonably straightforward.

Writers may quote from or paraphrase material from previously published works without formally obtaining the copyright holder's permission. **Fair use** means that the writer legitimately uses brief excerpts from source material to support and develop his or her own ideas. For instance, a columnist may excerpt a few sentences from a novel when writing a book review. However, quoting or paraphrasing another's work at excessive length, to the extent that large sections of the writing are unoriginal, is not fair use.

As he worked on his draft, Jorge was careful to cite his sources correctly and not to rely excessively on any one source. Occasionally, however, he caught himself quoting a source at great length. In those instances, he highlighted the paragraph in question so that he could go back to it later and revise. Read the example, along with Jorge's revision.

### Summary

Heinz (2009) found that “subjects in the low-carbohydrate group (30% carbohydrates; 40% protein, 30% fat) had a mean weight loss of 10 kg (22 lbs) over a 4-month period.” These results were “noticeably better than results for subjects on a low-fat diet (45% carbohydrates, 35% protein, 20% fat)” whose average weight loss was only “7 kg (15.4 lbs) in the same period.” From this, it can be concluded that “low-carbohydrate diets obtain more rapid results.” Other researchers agree that “at least in the short term, patients following low-carbohydrate diets enjoy greater success” than those who follow alternative plans (Johnson & Crowe, 2010).

After reviewing the paragraph, Jorge realized that he had drifted into unoriginal writing. Most of the paragraph was taken verbatim from a single article. Although Jorge had enclosed the material in quotation marks, he knew it was not an appropriate way to use the research in his paper.

## Summary

Low-carbohydrate diets may indeed be superior to other diet plans for short-term weight loss. In a study comparing low-carbohydrate diets and low-fat diets, Heinz (2009) found that subjects who followed a low-carbohydrate plan (30% of total calories) for 4 months lost, on average, about 3 kilograms more than subjects who followed a low-fat diet for the same time. Heinz concluded that these plans yield quick results, an idea supported by a similar study conducted by Johnson and Crowe (2010). What remains to be seen, however, is whether this initial success can be sustained for longer periods.

As Jorge revised the paragraph, he realized he did not need to quote these sources directly. Instead, he paraphrased their most important findings. He also made sure to include a topic sentence stating the main idea of the paragraph and a concluding sentence that transitioned to the next major topic in his essay.

## Working with Sources Carefully

Disorganization and carelessness sometimes lead to plagiarism. For instance, a writer may be unable to provide a complete, accurate citation if he didn't record bibliographical information. A writer may cut and paste a passage from a website into her paper and later forget where the material came from. A writer who procrastinates may rush through a draft, which easily leads to sloppy paraphrasing and inaccurate quotations. Any of these actions can create the appearance of plagiarism and lead to negative consequences.

Carefully organizing your time and notes is the best guard against these forms of plagiarism. Maintain a detailed working bibliography and thorough notes throughout the research process. Check original sources again to clear up any uncertainties. Allow plenty of time for writing your draft so there is no temptation to cut corners.

## Writing at Work

Citing other people's work appropriately is just as important in the workplace as it is in school. If you need to consult outside sources to research a document you are creating, follow the general guidelines already discussed, as well as any industry-specific citation guidelines. For more extensive use of others' work—for instance, requesting permission to link to another company's website on your own corporate website—always follow your employer's established procedures.

## Academic Integrity

The concepts and strategies discussed in this section of [Chapter 12 "Writing a Research](#)

**Paper**" connect to a larger issue—academic integrity. You maintain your integrity as a member of an academic community by representing your work and others' work honestly and by using other people's work only in legitimately accepted ways. It is a point of honor taken seriously in every academic discipline and career field.

Academic integrity violations have serious educational and professional consequences. Even when cheating and plagiarism go undetected, they still result in a student's failure to learn necessary research and writing skills. Students who are found guilty of academic integrity violations face consequences ranging from a failing grade to expulsion from the university. Employees may be fired for plagiarism and do irreparable damage to their professional reputation. In short, it is never worth the risk.

## KEY TAKEAWAYS

- An effective research paper focuses on the writer's ideas. The introduction and conclusion present and revisit the writer's thesis. The body of the paper develops the thesis and related points with information from research.
- Ideas and information taken from outside sources must be cited in the body of the paper and in the references section.
- Material taken from sources should be used to develop the writer's ideas. Summarizing and paraphrasing are usually most effective for this purpose.
- A summary concisely restates the main ideas of a source in the writer's own words.
- A paraphrase restates ideas from a source using the writer's own words and sentence structures.
- Direct quotations should be used sparingly. Ellipses and brackets must be used to indicate words that were omitted or changed for conciseness or grammatical correctness.
- Always represent material from outside sources accurately.
- Plagiarism has serious academic and professional consequences. To avoid accidental plagiarism, keep research materials organized, understand guidelines for fair use and appropriate citation of sources, and review the paper to make sure these guidelines are followed.