

GLOBAL
EDITION



Writing Research Papers

A Complete Guide

FIFTEENTH EDITION



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ALWAYS LEARNING

PEARSON

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1

Introduction to Academic Writing

Chapter 1 Clear Targets

Communication begins when we make an initial choice to speak or to record our ideas in writing. Regardless of the writer's experience, writing is a demanding process that requires commitment. This chapter charts a direction for your research project:

- Understanding why research is an important method of discovery
- Learning the conventions of academic writing
- Overcoming the pitfalls of plagiarism with proper documentation
- Understanding the terminology of a research assignment
- Establishing a schedule for your research project

The written word—whether it is a history paper, a field report, or a research project—creates a public record of our knowledge, our opinions, and our skill with language; hence, we must strive to make our writing accurate, forceful, and honest.

Discovering a well-focused topic, and more importantly a reason for writing about it, begins the process. Choosing a format, exploring sources through critical reading, and then completing the writing task with grace and style are daunting tasks.

Despite this, writing is an outlet for the inquisitive and creative nature in each of us. Our writing is affected by the richness of our language, by our background and experiences, by our targeted audience, and by the form of expression that we choose. With perceptive enthusiasm for relating detailed concepts and honest insights, we discover the power of our own words. The satisfaction of writing well and relating our understanding to others provides intellectual stimulation and insight into our own beliefs and values.

As a college student, you will find that your writing assignments will extend past personal thoughts and ideas to explore more complex topics. Writing will make you confident in your ability to find information

and present it effectively in all kinds of ways and for all sorts of projects, such as:

- A theme in a first-year composition course on the dangers of social networking sites.
- A paper in history on Herbert Hoover's ineffectual policies for coping with the Great Depression of the early 1930s.
- A report for a physical fitness class on the benefits of ballroom dancing as exercise.
- A sociological field report on free and reduced-cost lunches for school-aged children.
- A brief biographical study of a famous person, such as American agrarian labor leader César Chávez.

All of these papers require some type of “researched writing.” Papers similar to these will be assigned during your first two years of college and increase in frequency in upper-division courses. This book eases the pressure—it shows you how to research “online discussion groups” or “the Great Depression,” and it demonstrates the correct methods for documenting the sources.

We conduct informal research all the time. We examine various models and their options before buying a car, and we check out another person informally before proposing or accepting a first date. We sometimes search online for job listings to find a summer job, or we roam the mall to find a new tennis racket, the right pair of sports shoes, or the latest DVD. Research, then, is not foreign to us. It has become commonplace to use a search engine to explore the Internet for information on any subject—from personal concerns, such as the likely side effects of a prescribed drug, to complex issues, like robotics or acupuncture.

In the classroom, we begin thinking about a serious and systematic activity, one that involves the library, the Internet, or field research. A research paper, like a personal essay, requires you to choose a topic you care about and are willing to invest many hours in thinking about. However, unlike a personal essay, a research paper requires you to develop your ideas by gathering an array of information, reading sources critically, and collecting notes. As you pull your project together, you will continue to express personal ideas, but now they are supported by and based on the collective evidence and opinions of experts on the topic.

Each classroom and each instructor will make different demands on your talents, yet all stipulate *researched writing*. Your research project will advance your theme and provide convincing proof for your inquiry.

- *Researched writing* grows from investigation.
- *Researched writing* establishes a clear purpose.
- *Researched writing* develops analysis for a variety of topics.

Writing Research Papers introduces research as an engaging, sometimes exciting pursuit on several fronts—your personal knowledge, ideas gleaned from printed and electronic sources, and research in the field.

1a Why Do Research?

Instructors ask you to write a research paper for several reasons:

Research Teaches Methods of Discovery. Explanation on a topic prompts you to discover what you know on a topic and what others can teach you. Beyond reading, it often expects you to venture into the field for interviews, observation, and experimentation. The process tests your curiosity as you probe a complex subject. You may not arrive at any final answers or solutions, but you will come to understand the different views on a subject. In your final paper, you will synthesize your ideas and discoveries with the knowledge and opinions of others.

Research Teaches Investigative Skills. A research project requires you to investigate a subject, gain a grasp of its essentials, and disclose your findings. Your success will depend on your negotiating the various sources of information, from reference books in the library to computer databases and from special archival collections to the most recent articles in printed periodicals. The Internet, with its vast quantity of information, will challenge you to find reliable sources. If you conduct research by observation, interviews, surveys, and laboratory experiments, you will discover additional methods of investigation.



Finding material on electronic sources and the Internet, Chapter 4, pages 60–82.

Research Develops Inquiry-Based Techniques. With the guidance of your instructor, you are making inquiry to advance your own knowledge as well as increase the data available for future research by others.

Research Builds Career Skills. Many career fields rely on investigation and inquiry for fact-finding purposes. Researchers work across a broad spectrum of disciplines, including the physical and life sciences of biology, chemistry, and physics. Engineering sciences in the aerospace, computer science, and automotive production fields must rely on past research while forging new manufacturing trends. Social scientists in the fields of economics, sociology, psychology, and political science foster advancements in society through investigative studies. Research professionals are on the cutting edge of scientific and technological developments, and their work leads to new medicines, consumer products, industrial processes, and numerous other developments.

Research Teaches Critical Thinking. As you wade through the evidence on your subject, you will learn to discriminate between useful information and unfounded or ill-conceived comments. Some sources, such as the Internet, will provide timely, reliable material but may also entice you with worthless and undocumented opinions.

Research Teaches Logic. Like a judge in the courtroom, you must make perceptive judgments about the issues surrounding a specific topic. Your decisions, in effect, will be based on the wisdom gained from research

of the subject. Your paper and your readers will rely on your logical response to your reading, observation, interviews, and testing.

Research Teaches the Basic Ingredients of Argument. In most cases, a research paper requires you to make a claim and support it with reasons and evidence. For example, if you argue that “urban sprawl has invited wild animals into our backyards,” you will learn to anticipate challenges to your theory and to defend your assertion with evidence.



Making a claim and establishing a thesis, 2f, pages 42–45.

1b Learning the Conventions of Academic Writing

Researched writing in each discipline follows certain conventions—that is, special forms are required for citing sources and designing pages. These rules make uniform the numerous articles written internationally by millions of scholars. The society of language and literature scholars, the Modern Language Association, has a set of guidelines generally known as MLA style. Similarly, the American Psychological Association has its own APA style. Other groups of scholars prefer a footnote system, while still others use a numbering system. These variations are not meant to confuse; they have evolved within disciplines as the preferred style.

What is important for you, right now, is to determine which documentation style to use. Many composition instructors will ask you to use MLA style, as explained in Chapters 11–14, but they are just as likely to ask for APA style (Chapter 15) if your topic concerns one of the social sciences. In a like manner, your art history instructor might expect the footnote style but could just as easily request the APA style. Ask your instructor early which style to use and organize accordingly.



MLA Style, pages 268–276
 APA Style, pages 307–335
 Chicago (CMS) Style, pages 336–354
 CSE Style, pages 355–374

Regardless of the research style that you employ, your writing should advance substantive issues and inquiry. Keep in mind three key investigative conventions:

- Analysis** Classify the major issues of your study and provide detailed analysis of each in defense of your thesis.
- Evidence** Provide well-reasoned propositions and statements that are supported by facts, details, and evidence with proper documentation.
- Discussion** Relate the implications of your findings and the merits of the study, whether an author’s poetic techniques, a historical movement, or a social issue.

1c Understanding and Avoiding Plagiarism

The most important convention of academic writing is the principle of giving proper credit to the work of others. **Plagiarism is defined as the act of claiming the words or ideas of another person as your own.** Plagiarism is a serious violation of the ethical standards of academic writing, and most colleges and universities have strict penalties, including academic probation or expulsion, for students who are guilty of plagiarism. Most schools publish an official code of student conduct (sometimes called an academic integrity policy), and you should be familiar with this document as it applies to your research and writing.

Some students will knowingly copy whole passages from outside sources into their work without documentation. Others will buy research papers from online sources or friends. These intentional acts of academic dishonesty are the most blatant forms of plagiarism. *Unintentional plagiarism*, however, is still a violation of academic integrity. Unacknowledged use of another person's sentences, phrases, or terminology is plagiarism, so provide a citation and use quotation marks to show exactly where you are drawing on others' work. Similarly, unacknowledged use of another person's ideas, research, or approach is also plagiarism, so write careful paraphrases.



Understanding and Avoiding Plagiarism, Chapter 7, pages 113–126.

CHECKLIST

Avoiding Unintentional Plagiarism

The following guidelines will help you avoid unintentional plagiarism.

- **Citation.** Let readers know when you borrow from a source by introducing a quotation or paraphrase with the name of its author.
- **Quotation marks.** Enclose within quotation marks all quoted words, phrases, and sentences.
- **Paraphrase.** Provide a citation to indicate the source of a paraphrase just as you do for quotations.
- **Parenthetical citations and notes.** Use one of the academic documentation styles (MLA, APA, CMS, or CSE) to provide specific in-text citations for each source according to the conventions of the discipline in which you are writing.
- **Works cited or references pages.** Provide a complete bibliography entry at the end of your paper for every source you use, conforming to the standards of the documentation style you are using.

1d Understanding a Research Assignment

Beyond selecting an effective subject, you will need a reason for writing the paper. Literature instructors might expect you to make judgments about the structure and poetic techniques of Walt Whitman. Education instructors might ask you to examine the merits of a balanced curriculum for secondary students. History instructors might want you to explore an event—perhaps the tactics and strategies of the abolitionist movement leading up to the American Civil War.

Understanding the Terminology

Assignments in literature, history, and the fine arts will often require you to *evaluate*, *interpret*, and *perform causal analysis*. Assignments in education, psychology, political science, and other social science disciplines will usually require *analysis*, *definition*, *comparison*, or a search for *precedents* leading to a *proposal*. In the sciences, your experiments and testing will usually require a discussion of the *implications* of your findings. The next few pages explain these assignments.

Evaluation

To evaluate, you first need to establish clear criteria of judgment and then explain how the subject meets these criteria. For example, student evaluations of faculty members are based on a set of expressed criteria—an interest in student progress, a thorough knowledge of the subject, and so forth. Similarly, you may be asked to judge the merits of a poem, an art exhibit, or the newest trends in touchscreen cameras. Your first step should be to create your criteria. What makes a good movie? How important is a poem's form and structure? Is space a special factor in architecture? You cannot expect the sources to provide the final answers; you need to experience the work and make your final judgments on it.

Let's see how evaluation develops with one student, Sarah Bemis, who was asked to examine diabetes. At first, Sarah worked to define the disease and its basic attack on the human system. However, as she read the literature she shifted her focus from a basic definition to evaluate and examine the methods for controlling diabetes. Her paper, "Diabetes Management: A Delicate Balance," appears on pages 364–374.

In many ways, every research paper is an evaluation.

Interpretation

To interpret, you must usually answer, "What does it mean?" You may be asked to explain the symbolism in a piece of literature, examine a point of law, or make sense of test results. Questions often point toward interpretation:

What does this passage mean?

What are the implications of these results?

What does this data tell us?

Can you explain your reading of the problem to others?

For example, your instructor might ask you to interpret the 1954 Supreme Court ruling in *Brown v. Board of Education*; interpret results on pond water testing at site A, in a secluded country setting, and site B, near a petrochemical plant; or interpret a scene from Henrik Ibsen's *An Enemy of the People*.

In a paper on Internet dating, one student found herself asking two interpretive questions: What are the social implications of computer dating? and What are the psychological implications?

Definition

Sometimes you will need to provide an extended definition to show that your subject fits into a selected and well-defined category. Note these examples:

1. A low-fat diet reduces the risk of coronary disease.

You will need to define “low-fat” by describing foods that make up a low-fat diet and naming the benefits from this type of diet.

2. Title IX has brought positive changes to college athletic programs.

You will need to define the law in detail and specify the changes.

3. The root cause of breakups in relationships is selfishness.

This topic will require a definition of selfishness and examples of how it weakens relationships.

A good definition usually includes three elements: the subject (low-fat diet); the class to which the subject belongs (diets in general); and the differences between others in this class (low-carb or Atkins). Definition will almost always become a part of your work when some of the terminology is subjective. If you argue, for example, that medical experiments on animals are cruel and inhumane, you may need to define what you mean by *cruel* and explain why *humane* standards should be applied to animals that are not human. Thus, definition might serve as your major thesis.

Definition is also necessary with technical and scientific terminology, as shown by Sarah Bemis in her paper on diabetes. The paper needed a careful, detailed definition of the medical disorder in addition to the methods for managing it. By her inquiry, she reached her conclusion that medication in harmony with diet and exercise were necessary for victims of the disease. Her research paper appears on pages 364–374.

Proposal

A proposal says to the reader, “We should do something.” It often has practical applications, as shown by these examples:

- To maintain academic integrity, college administrators must enact stringent policies and punishments for cheating and plagiarism.
- A chipping mill should not be allowed in our town because its insatiable demand for timber will strip our local forests and ruin the environment.

A proposal calls for action—a change in policy, a change in the law, and, sometimes, an alteration of accepted procedures. Again, the writer must advance the thesis and support it with reasons and evidence.

In addition, a proposal demands special considerations. First, writers should convince readers that a problem exists and is serious enough to merit action. In the previous example about chipping mills, the writer will need to establish that, indeed, chipping mills have been proposed and perhaps even approved for the area. Then the writer will need to argue that they endanger the environment: They grind vast amounts of timber of any size and shave it into chips that are reprocessed in various ways. As a result, lumberjacks cut even the immature trees, stripping forests into barren wastelands. The writer presumes that clear-cutting damages the land.

Second, the writer must explain the consequences to convince the reader that the proposal has validity. The paper must defend the principle that clear-cutting damages the land, and it should show, if possible, how chipping mills in other parts of the country have damaged the environment.

Third, the writer will need to address any opposing positions, competing proposals, and alternative solutions. For example, chipping mills produce chip board for decking the floors of houses, thus saving trees that might be required for making expensive plywood boards. Without chipping mills, we might run short on paper and homebuilding products. The writer will need to note opposing views and consider them in the paper.

Causal Argument

Unlike proposals, which predict consequences, causal arguments show that a condition exists because of specific circumstances—that is, something has caused or created this situation, and we need to know why. For example, a student's investigation uncovered reasons why schools in one state benefit greatly from a lottery but do not in another.

Let's look at another student who asked the question, "Why do numerous students, like me, who otherwise score well on the ACT test, score poorly in the math section of the test and, consequently, enroll in developmental courses that offer no college credit?" This question merited his investigation, so he gathered evidence from his personal experience as well as data drawn from interviews, surveys, critical reading, and accumulated test results. Ultimately, he explored and wrote on a combination of related issues—students' poor study skills, bias in the testing program, and inadequate instruction in grade school and high school. He discovered something about himself and many details about the testing program.

Comparison, Including Analogy

An argument often compares and likens a subject to something else. You might be asked to compare a pair of poems or to compare stock markets—NASDAQ with the New York Stock Exchange. Comparison is seldom the focus of an entire paper, but it can be useful in a paragraph

about the banking policy of Andrew Jackson and that of his congressional opponents.

An analogy is a figurative comparison that allows the writer to draw several parallels of similarity. For example, the human circulatory system is like a transportation system with a hub, a highway system, and a fleet of trucks to carry the cargo.

Precedence

Precedence refers to conventions or customs, usually well established. In judicial decisions, it is a standard set by previous cases, a *legal precedent*. Therefore, a thesis statement built on precedence requires a past event that establishes a rule of law or a point of procedure. As an example, let's return to the argument against the chipping mill. If the researcher can prove that another mill in another part of the country ruined the environment, then the researcher has a precedent for how damaging such an operation can be.

Implications

If you conduct any kind of test or observation, you will probably make field notes in a research journal and tabulate your results at regular intervals. At some point, however, you will be expected to explain your findings, arrive at conclusions, and discuss the implications of your scientific inquiry—what did you discover, and what does it mean?

For example, one student explored the world of drug testing before companies place the products on the market. His discussions had chilling implications for consumers. Another student examined the role of mice as carriers of Lyme disease. This work required reading as well as field research and testing to arrive at final judgments. In literature, a student examined the recurring images of birds in the poetry of Thomas Hardy to discuss the implications of the birds in terms of his basic themes.

1e Establishing a Research Schedule

Setting a schedule at the beginning of a research project helps you stay on track and reminds you to follow the basic steps in the process. This book is organized to help you follow along with each step in the process. Write dates in the spaces on pages 27–28 next to each step and keep yourself on schedule.

- **Finding and narrowing a topic.** Your topic must have a built-in question or argument so you can interpret an issue and cite the opinions found in your course materials.
- **Drafting a thesis and research proposal.** Even if you are not required to create a formal research proposal, you need to draft some kind of plan to help direct and organize your research before you start reading in depth. See sections 2f and 2g and Chapter 3.

- **Reading and creating a working bibliography.** Preliminary reading establishes the basis for your research, helping you discover the quantity and quality of available sources. If you can't find much, your topic is too narrow. If you find too many sources, your topic is too broad and needs narrowing. Chapters 4 and 5 explain the processes for finding reliable sources online and in the library.
- **Creating notes.** Begin entering notes in a digital or printed research journal. Some notes will be summaries, others will be carefully selected quotations from the sources, and some will be paraphrases written in your own voice. Chapter 9 details the techniques for effective notetaking.
- **Organizing and outlining.** You may be required to create a formal outline; formal outlines and additional ideas for organizing your ideas are presented in sections 9h and 9i.
- **Drafting the paper.** During your writing, let your instructor scan the draft to give you feedback and guidance. He or she might see further complications for your exploration and also steer you clear of any simplistic conclusions. Drafting is also a stage for peer review, in which a classmate or two looks at your work. Section 13a, pages 237–239, gives more details on peer review. Chapters 10–12 explain matters of drafting the paper.
- **Formatting the paper.** Proper document design places your paper within the required format for your discipline, such as the number system for a scientific project or the APA style for an education paper. Chapters 14–17 provide the guidelines for the various disciplines.
- **Writing a list of your references.** You will need to list in the proper format the various sources used in your study. Chapters 14–17 provide documentation guidelines.
- **Revising and proofreading.** At the end of the project, you should be conscientious about examining the manuscript and making all necessary corrections. With the aid of computers, you can check spelling and some aspects of style. Chapter 13 gives tips on revision and editing. The Glossary is a list of terms that explains aspects of form and style.
- **Submitting the manuscript.** Like all writers, you will need at some point to “publish” the paper and release it to the audience, which might be your instructor, your classmates, or perhaps a larger group. Plan well in advance to meet this final deadline. You may present the paper in a variety of ways—on paper, through e-mail to your instructor, on a USB flash drive, in a drop box, or on your own website.