Recipe for Research: A Six-Step Process



Throughout high school and college, you will be asked to complete research assignments for many of your classes. Your final product might be a paper, a project or an oral presentation. This guide offers a six-step process for acquiring and organizing information for a research assignment, with emphasis on writing a paper.

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The ability to develop a good research topic is an important skill for high school and college students alike. Your instructor may assign you a specific topic or allow you to **choose your own**.

- a) **Brainstorm ideas.** What interests you? Do you have a strong opinion about a social or political issue? Is there a topic you'd like to learn more about? Bounce ideas around with a friend or classmate.
- b) **Gather background information.** Read general information on the topics you are considering. Make sure the topic you choose is manageable and that information is available. Make note of the terms you encounter.
- c) **Formulate questions.** Pose questions to yourself that will give your research direction. This is a good time to focus your topic.

For example, topics such as "climate change" and "the environment" are too broad. But if you pose the question, "What are the primary causes of climate change?" you will get more focused. You can also limit a topic by geographical region, population group or time frame.

d) **Generate keywords.** Use your questions to make a list of searchable keywords. Make a list of synonyms as well as related broader and narrower search terms.

Example: The keyword or term in the example question is *climate change*. Synonyms would be *greenhouse effect* or *global warming* and a related term might be *ozone depletion*.

Draft a Thesis Statement

a) **Determine the subject** you will explore in your project or paper. Your thesis statement will depend on your topic and the type of research paper you intend to write.

There are three basic types of research papers:

- 1. An analytical paper breaks down an issue and evaluates it.
- 2. An expository paper teaches or illuminates a point.
- 3. A persuasive (or argumentative) paper makes a claim and backs it up with evidence.
- b) Draft your thesis statement once you've determined the purpose of your paper. The thesis statement focuses your idea into one or two sentences and typically appears in the introduction of your paper. See our thesis statement handout for examples and a graphic organizer to help you write your own.

Make sure your thesis statement follows these four guidelines:

- 1. It establishes your position on a topic and gives the reader a sense of direction like a road map.
- 2. It guides your writing, helping you keep your argument and/or analysis focused.
- 3. It is an assertion, not a statement of fact or observation. (However, you may use facts in your paper to support your thesis.)
- 4. It is debatable. Someone should be able to argue an opposing position or support your assertions.
- c) **Answer the question** you formulated in Step 1c and make the answer your thesis statement.

Examples:

Question: What are the primary causes of climate change? *Thesis:* Climate change is caused by both naturally occurring events and human activities.

Question: Why is the Mississippi River so important in Mark Twain's Huckleberry Finn? *Thesis:* The river comes to symbolize both division and progress, as it separates our characters and country while still providing the best chance for Huck and Jim to get to know one another.

Note: Writing a thesis statement can be tricky. It's okay to modify your topic or thesis statement during the research process. You may find too much information and need to narrow your focus, or too little and need to broaden your focus.

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Identify Your Information Resources

a) **Decide on your best resources.** Choose the materials that are going to work best for your paper. Options include online research databases such as those offered by EBSCO (e.g., *Academic Search Complete™, Science Reference Center™, Literary Reference Center™ Plus*) as well as books, e-books, reference books, dictionaries, encyclopedias, magazines, newspapers, audio and video files, and websites you find using search engines.

Note: EBSCO databases include all the resource options covered above except for search engines. Ask your librarian for login information or, if you know your User ID and Password, go to <u>http://search.ebscohost.com</u>.

b) List pros and cons. Determine the advantages and disadvantages of your resource choices.

- Which include the most information?
- Which are the most accurate?
- Which are easiest to use?
- Which are fastest?

Note: Search engines can be simple to use, but results often lack accuracy, and finding reputable sources can be difficult and time consuming. Learn more about <u>Accessing Reliable Sources</u> or download <u>Freddie's 10 Tips for</u> <u>Ferreting Out Fake News</u>.

Search for Relevant Sources

- a) Strategize. Use the keywords you identified in Step 1d to build your search strategy. Library databases offer several ways to locate relevant information. EBSCO's <u>Advanced Search</u> option allows you to combine your search terms to create a more targeted search. Download our <u>Top 5 Search Strategies</u> flyer for more ways to search.
- b) **Filter results.** Use filters on the search results page to further narrow records by source type, subject, publication name or publication date range.
- c) Preview results. Click the preview icon to view details about the search result. Save any relevant records to your <u>My EBSCO*host* folder</u> or <u>Google Drive</u>. (You may later choose not to use some of the records you collect, and that's okay!)

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Evaluate and Organize Your Information

- a) **Review materials.** Read, watch and/or listen to everything you've collected.
 - Will it help you to complete your tasks?
 - · Does your research answer all or most of your questions?
 - Will your research allow you to attain your goals and prove the points in your thesis statement?

Note: If the answer to any of these questions is "no," you may need to do more research, review your information to find more answers, or weed out information that will not be helpful.



- b) **Take good notes.** If you use index cards, record the source of the information on each card. Be careful not to copy phrases or sentences word-for-word. Here are tips for **taking notes** and **avoiding plagiarism**.
- c) **Create an outline.** Once you have thoroughly evaluated all your sources, it's time to organize and repackage your notes in the form of an outline.

Write Your Research Paper

- a) Write a rough draft. Using your outline as a guide, write a first pass of your paper, without worrying about sentence structure or grammar rules yet. Just make sure your ideas follow a logical progression. Use this graphic organizer to help you organize your essay.
- b) **Revise your draft.** Review the draft on your own, revising as needed, and then ask someone you trust to help you make additional edits. A second pair of eyes is invaluable.
- c) Build a list of references. EBSCO's <u>Cite</u> feature can help. However, sometimes databases return citations with errors in capitalization or punctuation, so double check each citation to make sure everything is correct. Purdue University's Online Writing Lab offers excellent <u>research and citation resources</u>.
- d) Know the difference. A Works Cited and a Bibliography are two different things.

A **Bibliography** is a list of all sources you consulted, including those you did not end up referencing in your paper.

A **Works Cited** is a list of only the sources you reference in your paper. Usually, your instructor will request that you submit a Works Cited with your research.

e) **Format your paper.** Use appropriate style guidelines, such as <u>MLA</u> or <u>APA</u>, to format your paper. These guidelines cover margins, spacing, cover pages, and page headers and footers.

If you carefully followed the steps in this process, you have already improved your odds of success!

References

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