

An Introduction to Choosing & Using Sources

AN INTRODUCTION TO CHOOSING & USING SOURCES

Teaching & Learning and Ohio State University Libraries

The Ohio State University



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1-COLLEGE WRITING

What comes into your mind when you think of writing in college? When new undergraduate students were asked how they thought academic writing would be different from other kinds of writing, most mentioned differences in vocabulary and grammar. Some expected to be writing five-paragraph essays. This is understandable because a lot of high school writing is designed to prepare students for college entrance exams, where they must be quick, well-organized, and accurate.

What kinds of writing do you imagine you will be doing in college? Which courses other than English? What do you think will be valued in these? What kinds of purposes will writing assignments serve?

College-level writing differs from secondary school (high school) because the goals and learning environment are different. Not all of the skills you developed and information you learned before college will be useful. You must discover which of your skills are relevant and which are not.

Before college, many students encountered writing assignments only in their English classes, which may have had a language-learning goal (like practicing vocabulary or grammar structures). The purpose may have been to assess proficiency in language use or reading comprehension of assigned texts.

In college, writing will be more about explaining your thinking or expanding what you have learned in class. The focus will be on content, not language-learning. Often you will be asked to find and read texts other than those assigned in your course. These are called “sources” because they are sources of information that teach you and help you support your thinking.

If you have written academic papers with sources, these steps may be familiar:

1. Choose a topic and a thesis statement
2. Locate sources in the library or online
3. Scan sources for useful information
4. Make an outline
5. Write paper, using paraphrases and quotes from sources
6. List references

While these steps are efficient and do produce a paper, their primary goal may have been for you to *prove that you could find information on a topic*, and use *paraphrases*, *quotations*, and *cite sources*. In other words, the content may not have been the primary focus.

The papers you write in college have a different goal: to support content and demonstrate critical thinking about that content. They approach knowledge differently. Education researchers explain the difference this way:

In primary and secondary school, the focus is on learning what is already known about a field and what society values. We memorize facts and understand information in order to conserve this knowledge. In college, the focus becomes questioning assumptions and exploring new ideas about a field. In other words, we are expected to expand what is already known. (Ballard & Clanchy, 1997, p. 2)

PRIMARY/SECONDARY EDUCATION
Focus: What is Known



Conserving Knowledge

UNIVERSITY EDUCATION
Focus: Expand What is Known



Critiquing and Extending Knowledge



**Focus on
correctness**

**Simple
creativity**

**Creative
originality**

**Creation of new
knowledge**

APPROACHES TO KNOWLEDGE

(Source: Ballard & Clanchy, 1997)

We are probably all familiar with the **focus on correctness** — red marks on our papers or high grades

for being accurate. We are probably familiar with **simple creativity** from art classes, creative writing, or using multi-media for school projects. What about **creative originality**? As an undergraduate student, you are not expected to make a surprising discovery or find a cure for a disease, but you can:

- Expand what is known about a topic by bringing a new perspective or analyzing facts about it in a new way
- Compare sources of information that no one else has compared
- Ask a question no one else has asked
- Make a connection between two points that no one else has made

By learning to do this, you can contribute to knowledge, and you will develop the creative and critical thinking that will enable you to further expand knowledge in your major field. You are expected to have genuine curiosity and undertake a real investigation on a topic you care about.

You CAN Contribute!

COMMON TYPES OF WRITING ASSIGNMENTS

While much of the writing you did in high school may have been for an English or literature class, in college, writing is a common form of expression and scholarship in many fields and thus in many courses.

You may have to write essays, reflections, discussion board posts, or research papers in your history, biology, psychology, art history, or computer science classes.

Writing assignments in college vary in length, purpose, and the relationship between the writer (you) and the topic. Sometimes you may be asked to **gather information and write a report on your findings**. Sometimes you may be asked to **compare opinions** expressed by experts. You might be asked to **answer a question** or **state your position and defend it with evidence**. Some assignments require a mixture of several of these tasks.

When a writing assignment is mentioned in the syllabus of a course, make sure you understand the assignment long before you begin to do it. The university's Writing Center recommends that you note the vocabulary used in assignment descriptions and make sure you understand what **actions** certain words suggest or require. You should also talk to peers in your class to compare understandings and expectations.

Instructors are accustomed to receiving student questions about major writing assignments, so it is fine to ask your instructor if you are confused about expectations or just want to verify your understanding before you begin.

The university's Writing Center consultants will help you with questions about an assignment and how to ask your instructor for more information if necessary. They will help you strengthen your writing, give you feedback on your ideas, and offer suggestions for organizing your content. They can tell you if you are appropriately using sources.

The Writing Center is not only for students who have questions or are puzzled about assignments. It offers support to experienced writers, too. Faculty and graduate students routinely schedule sessions with Writing Center consultants.

Strong, experienced writers enjoy conversation about their writing decisions and find it helpful to have an outside reader for their work.

Conferences with a writing consultant can be face-to-face or online.

This is a free service!

If you are uneasy about talking with your instructor, make an appointment at the Writing Center:
[https://cstw.osu.edu/writing – center](https://cstw.osu.edu/writing-center)

COMMON TYPES OF ASSIGNMENTS

Type	Sub-categories
Analysis	Casual Analysis: Explain why something typically happens or may have happened in the past.
	Comparison Analysis: Write about someone's work by comparing it to another work (or works). Discuss the significance of the similarities.
	Comparison/contrast Analysis: Write about someone's work by comparing and contrasting it to another work (or works) and discuss the significance of these similarities and differences.
	Critical Analysis: Write about the argument or reasoning of an author's work. Evaluate.
	Literary Analysis: Write about your interpretation of the meaning or significance of literary work (novel, play, poem, short story). In the visual arts, we use the term "critique," for writing that does this about films, paintings, etc.
	Process Analysis: Explain the steps involved in producing something.
Annotated Bibliography	Rhetorical analysis: Write about the strategies an author used to express meaning or achieve certain results.
	Write a summary/evaluation of each source that you used in a project or paper. Summarize the main point(s) or arguments, and the topics covered. Next, evaluate (assess) its value to the field or to your topic.

Literature Review (Review of the Literature)	Write about several works that contribute to your topic. Discuss how they contribute by summarizing their main points. (At the graduate-level, the literature review provides important background information, with a focus on existing publications, for a research topic.)
Reflection	Write about a work studied in class changed your thinking or challenges your assumptions. This writing is personal, drawing on your reactions, feelings, or experiences, in a way that shows a change or progression in thinking.
Research paper	Write a (usually lengthy) paper in which you answer a question, support a position or argument on an issue, or propose a solution to a problem. Your writing is based on your own ideas as well as research (opinions, facts, interviews, information) collected from sources).
Response	Write what you think based on your own experience, opinions, and ideas. Refer to specific ideas or information mentioned in whatever you are responding to.
	Critical Response: Take a position on an author's work and support your position with evidence from the author's work as well as some research on what others have said about it.
Synthesis	Find a theme or idea that allows you to group together two or more texts that may be different in opinions, ideas, or influences, and explain what organizes them under this theme. (Syntheses can be organized around a thesis or an argument.)
Summary	Write a shortened version of something in your own words, focusing only on the main points. Most summaries are written objectively, with no personal opinions from the writer of the summary. There are many different kinds of summaries, depending on the discipline.

ASSIGNMENT VOCABULARY

VOCABULARY OFTEN USED IN WRITING ASSIGNMENT INSTRUCTIONS

Source:

[Modified from: Michelle Miller & Anne Greenhoe, *Transition with Purpose: Pathways from English Language to Academic Study* (2018). Portland State University Reproduced with additions from: Skidmore College, NY: Common Terms for Paper Topics and Essay Questions: <http://www.skidmore.edu/academics/writingbrd/qwords.HTML>

Permission from: Professor Michael Steven Marx, Associate Professor of English and Coordinator of Liberal Studies 1, English Department, Skidmore College, Saratoga Springs, NY 12866.

DESCRIPTOR	WHAT THIS COULD MEAN:
Identification	<p>cite- to quote using a documentation style format; to give or refer to an example or case as proof or support</p> <p>define – to give concise, clear, and authoritative meanings; (Don't give details, but make sure to give the limits of the definition. Show how the thing you are defining differs from other things.)</p> <p>enumerate – to write in list or outline form, giving points concisely one by one</p> <p>identify – to determine the classification or existence of something; make known</p> <p>indicate – to point out or show evidence</p> <p>list (as in “enumerate,”) – to write an itemized series of concise statements</p> <p>mention – to speak of, say, to name or specify, usually briefly</p> <p>state –to present the main points in brief, clear sequence, usually omitting details, illustrations, or examples</p>
Description	<p>describe – to recount, characterize, sketch, or relate in sequence or story form</p> <p>discuss – to examine, analyze carefully, and give reasons pro and con, to be thorough and give details</p> <p>review – to examine a subject critically, analyzing and commenting on the important statements to be made about it</p> <p>summarize –to give the main points or facts in condensed form, like the summary of a chapter, omitting details and illustrations</p> <p>diagram – to give a drawing, chart, plan, or graphic answer, or to label a diagram (In some cases, add a brief explanation of description.)</p> <p>illustrate – to use a figure, picture, diagram, or concrete example to explain or clarify a problem</p> <p>sketch – to design, plan, drawing, or outline of facts with only essential features</p> <p>develop – to expand the ideas or features of something to a more advanced, detailed level</p> <p>outline: – to organize a description under main points and subordinate points, omitting minor</p> <p>trace – to use narrative form to describe progress, development, or historical events from some point of origin</p>
Relationship	<p>analyze – to divide a complex whole into its parts or elements, laying bare parts or pieces of individual scrutiny, so as to discover the true nature or inner relationships</p> <p>compare – to look for qualities or characteristics that resemble each other, to emphasize similarities</p> <p>contrast – to stress the dissimilarities, differences, or unlikeness of things, qualities, events or problems.</p> <p>differentiate – to separate 2 or more ideas/items based on differences in features, characteristics, or classification, or to take note of differences</p> <p>distinguish – to note or recognize the differences or similarities between 2 or more ideas/items</p> <p>relate – to show how things are related to, or connected with, each other or how one causes another, correlates with another, or is like another.</p>
Demonstration	<p>demonstrate – to show or prove with support or evidence from data or examples</p> <p>explain why – to clarify, interpret, and spell out the material you present, to give reasons for differences</p> <p>justify – to prove or give reasons for decisions or conclusions, taking pains to be convincing</p> <p>prove – to establish that something is true by citing factual evidence or giving clear logical reasons.</p> <p>show – to provide evidence or proof of an argument or to explain why</p> <p>support – to provide evidence to prove an argument, position, or theory</p>

Evaluation	<p>value – to carefully appraise the problem, citing both advantages and limitations, to emphasize the appraisal of authorities and, to a lesser degree, your personal evaluation</p> <p>assess – to evaluate, measure, to estimate the value, amount, or significance of an idea, event, or data</p> <p>comment – to say, to provide criticism, interpretation, or a point of view</p> <p>criticize/critique – to express your judgment about the merit or truth of the factors or views mentioned, to give the results of your analysis of these factors, discussing their limitations and good points</p> <p>interpret -to translate, give examples of, solve, or comment on a subject, usually giving your judgment</p> <p>propose – to suggest a plan/theory/idea for a specific action or consideration, usually with detailed support to justify</p>
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SAMPLE WRITING ASSIGNMENTS

ANTHROPOLOGY 2202

Write a manifesto: A manifesto is a public declaration of one's intentions, motives or point of views. Your full manifesto should be at least 1000 words (contributed by you), though some will be thousands of words. Most importantly, it should be clear that you reflected deeply and wrote something worth writing. Ideally, this will be an important reflection on your life and be something that you will want to read again later in your life to remind yourself of who you were and what you learned. Your manifesto should have the following four parts:

Part 1. Goals — What are your core goals for yourself, your future, and for how you will contribute to the world? Describe at least 3 goals.

Part 2. Joining/Working in Society –If you were applying to a job, what position would it be? It can be a position that already exists, or it can be something you invent. How does this position relate to goals in Part 1?

Explain why this position is important and what core social/political/institutional/environmental/ etc. issues it addresses. Give some background on the issues (why they exist, how your position will improve things and in which ways). Use conceptual models, like the triad of realization or the barrel model, to explain why such issues exists.

Part 3. Photo Representation — Take (or find) a photo of yourself (or something else) that represents you, your manifesto. Add the photo to your write-up.

Part 4. Your Journey — Reflect on each of one of the big ideas from this class (at least 1 paragraph per idea) and how those ideas changed the way you live or might help you in the future (with family, friends, in school, at work, with significant others, with strangers, as a citizen, as a human, etc.). Consider what you read, watched and did for each challenge and how each changed you. The goal is to use anthropological concepts and ways of thinking to express your personal reflections and learning.

BUSINESS 2292

Write a 2-page paper conducting an analysis on the Starbucks Global Responsibility Report (posted to Carmen). One site that may prove to be helpful in your analysis that looks at how global companies ranked against the Global Reporting Initiative's standards is: <http://database.globalreporting.org/search> This is an individual assignment and collaboration of any kind among classmates is not

permitted.

Tips:

Use class materials to bolster your arguments where appropriate

Do not try to analyze everything. Select the topics that you feel are the most important and focus on them

Utilize multiple sources to strengthen your argument

Utilize appendices to provide additional details about the topic that you are analyzing

Structure your paper to have a logical flow of information, easy to understand

Use proper spelling and grammar; the paper should not have errors

Include a Cover page

Include a Works cited Page (minimum of 3 sources, not including the Starbucks report)

Double-space your paper, using Garamond 12-point font, and 1" margins all around.

Parts One: Analysis

Choose **ONE** of the following four areas of the Starbucks CSR report to discuss in further detail:

1. Analysis of a specific item within the “sustainable coffee” section. Is this a best practice in the industry? What are other organizations doing on this front? How do Starbucks efforts compare?
2. Analysis of a specific item within the “greener retail” section. Is this a best practice in the industry? What are other organizations doing on this front? How do Starbucks efforts compare?
3. Analysis of a specific item within the “creating opportunities” section. Is this a best practice in the industry? What are other organizations doing on this front? How do Starbucks efforts compare?
4. Analysis of a specific item within the “strengthening communities” section. Is this a best practice in the industry? What are other organizations doing on this front? How do Starbucks efforts compare?

Part Two: Recommendation

Given your analysis, what **recommendation(s)** do you have for the organization and why? Your recommendations should be directly linked and supported by the data that was provided in your analysis. Be specific

CHEMISTRY 1100

What do atoms look like? Using words and/or a sketch communicate your current understanding of the atom's structure. What specific evidence, or types of evidence, did scientists use to determine the structure of the atom? Use your textbook as a source and at least one other source. Your paper should be 1 ½ – 2 pages (double-spaced). Cite all sources you consulted at the end of the paper.

ECONOMICS 1102

Select a topic and research question relevant to the issues discussed and studied this semester. Submit your topic and question for approval. Once it has been approved, begin your project by:

- researching your topic using at least five current economics research articles from peer-reviewed journals that offer empirical results.
- describing what each one of the articles is,
- analyzing how each is related to your question,
- what results it brings.

This must be a cohesive project. You may see articles having completely different results for the same question. You need to find out what makes it different. You might consider looking at economic journals NBER working paper series, and SSRN working paper series. A list of economic journals can be found here: <http://ideas.repec.org/top/top.journals.simple.html>

Also, in addition, the *Undergraduate Economic Review* may also have interesting and good information for you. As long as you are in the OSU network or through the OSU library webpage, you should have access to all journal articles for free. Google Scholar is a good way to start searching for journal articles.

ELECTRICAL & COMPUTER ENGINEERING 4900

This should be a stand-alone document. It should fully describe your development activity to someone unfamiliar with your project.

Overall Format: Font: body text 12 point, line space of 1.5, text in figures and tables must be legible
 Margins: 1 inch on all sides
 Number all pages (hide number on title page) and sections/subsections.
 Figures and tables should be numbered, captioned, and referenced in body of report.
 Use Word format. Writing style: clarity of presentation and format, grammar, use of language, and transitions will factor into the overall score. Proofread the work of your team members. Use effective and appropriate visuals. Design choice, strategies, reasons and/or rationale and analysis should be clearly stated. Be quantitative and precise wherever possible.

Parts:

I. Initial content (10%):

- Title Page: (1 page) Document title, team project and member names, course number, and date
- Table of Contents: (1 page) Include a list of figures and tables
- Executive Summary: (1 page) Summarize design and implementation and highlight key points of report. This should be a summary of the key points- not a summary of the organization or the kinds of points.

II. Introduction (5%) (1-2 pages): Purpose of report, background and motivation, statement of problem, overview of remainder of document

III. Technical (60%) (10-20 pages) should contain (not necessarily in this order)

- o Additional description of concept of the product and solution (if needed beyond intro)
- o Requirements, specifications, and features- quantitative statements of functionality and performance should be used whenever possible
- o Alternate features or functionality that were considered and rejected
- o Design- functional block diagram, schematics, software block or flow diagrams, and other diagrams or figures, and appropriate documentation, simulations, analysis, and commentary (overall product and modules or subsystems as appropriate).
- o Alternate designs or solutions that were considered and rejected
- o Analysis and applicability of constraints: i.e. economic, environmental, social, political, health and safety, manufacturability, sustainability.
- o Identify and discuss standards and regulatory issues (IEEE, FCC, UL, ...)

- o Description of prototype- consider including photographs. Don't forget construction and mechanical/physical layout design and implementation.

- o Validation: analysis, simulation, and testing (individual components, subsystems, and overall product). This. May include plans, data, analysis, and results (quantitative), and/or verification of prototype against requirements, specifications, and constraints

IV. Project Management (20%) (3-7 pages)

- o Task list, timeline, schedule, and/or Gantt chart, and individual or group assignments and responsibilities as appropriate. You should include discussion of development path timeline (i.e. what changed over the course of the project).

- o Resources: Required Hardware/Components/Equipment/Facilities (including test equipment), budget and expenses

- o Risks- previously identified risks, potential problems, and mitigation strategies

- o Challenges, issues, and problems encountered and their solution.

V. Conclusion- summary and benefits of this product/solution, possible future enhancements, recommendations for next steps (5%) (1-2 pages)

VI. Bibliography and References- web pages, books, reports, articles, etc.

VII. Appendices as needed (software source code, data sheets, etc.)

ENGLISH 1110

This assignment will give you the opportunity to read and familiarize yourself with various secondary sources and to reflect on and plan how you might integrate these effectively into your Secondary Source Integration Paper. This assignment will also provide practice in using the MLA Works Cited format. Your annotated bibliography should be single-spaced, typed in 12-point font, and set to 1" margins.

Find **four or five** secondary sources that are timely, useful, credible, and relevant to your primary source.

- At least one of your sources should be from a **scholarly, peer-reviewed journal**
- Other secondary sources might include articles from newspapers or magazines; books or book chapters; television, film, or radio documentaries; credible websites, etc. With some popular sources, particularly websites, there may be debate about their credibility. A news site such as *The Atlantic* or *The New York Times* will usually be considered credible by readers; a personal blog will usually be considered less credible. That is not to say that you cannot use a source like a blog, but rather that you will need to make a much stronger argument for why this source should be perceived and treated as credible.
- **READ YOUR SOURCES CAREFULLY.** When you are initially searching for sources, it is fine to simply skim them. However, once you have decided to include a source in your Annotated Bibliography, **make sure you have read it thoroughly and attentively.**

For each source, create a **correctly formatted Works Cited entry in MLA style.** (See the MLA Handbook or the Purdue OWL (<http://owl.english.purdue.edu/owl/resource/747/01/>) for details.)

After each entry, create an **annotation** for each source. These annotations should be thorough and detailed, about **300 words** per source. In each annotation, you should:

- Describe the source (where it comes from, who wrote it, how a reader might determine its reliability, etc.).
- Provide a detailed summary of the author's main argument. For instance, do not simply say that an article is "about personal confidence." What, specifically, does the article say about personal confidence? Demonstrate that you understand the central argument each source is marking.
- Detail how you see this secondary source connecting to either your primary source itself or a broader topic suggested by your primary source. Explain this connection thoroughly to your reader, and be as specific as possible.
- Discuss how this source may relate to your argument and how you might use this source in later writing assignments in this class.

FILM STUDIES 2270

Write a 5-7 pp. (double-spaced, standard fonts and margins) description and brief analysis of one of the 4 scenes we discussed in class this semester. The point of this assignment is to give you an opportunity to watch very closely, translate what you notice into the standard terms and categories of film studies, and begin to make an argument about the significance of what you've noticed. There are three parts to this assignment:

1) Before you begin to write, please watch the scene you've decided to work on at least five times to do each of these:

5 times (at least) to understand what's going on in terms of the narrative and the overall effect of the scene

5 times (at least) pausing after each shot to observe and take notes on every aspect of its cinematography

5 times to observe and take notes on every aspect of its editing

5 times to observe and take notes on every aspect of its mise-en-scène

Then look over your notes and coordinate them, so that you have a clear understanding of what happens with all of these aspects

in each shot.

2) Once you have done all the watching and re-watching and note-taking for part 1, start writing. Describe the cinematography, editing, and mise-en-scène of the first shot. Be sure to note any changes that occur during the shot. Then do the same with the second shot, the third shot, and so on. Number your shots. Please use the technical vocabulary you have learned in lecture and from your reading. The most important part of learning how film works is training your eyes and you will not be able to do that successfully unless you can carefully scrutinize a film and notice every detail.

3) Once you have done your shot-by-shot description, please write a brief (one page, included within the 5-7 pp. total) analysis of the significance of the major elements of what you've described. Some possible questions to pursue would include: How do these various elements work together? Why do they matter? What emotions do they produce in you? What do they get you thinking about? How does this scene (done in this way) fit into the film as a whole?

GEOGRAPHY 2200

Objective : The Term Paper helps you develop/demonstrate your knowledge about map use and analysis. It assesses your understanding of basic methods of spatial data-gathering, presentation and interpretation. It also asks you to demonstrate the value of geographic knowledge and how it can be used to analyze real-world, critical problems.

What is a “White Paper”? The term White Paper is often used to refer to government or corporate reports, usually indicating that the document is somehow authoritative and informative in nature. It is often used to argue a specific position or propose a solution to a problem with a fairly broad audience in mind. The language and terminology used may be somewhat technical, but in a way that most people can understand. Here are some examples of professional white papers, clearly above and beyond what I expect from you, but hopefully they can give some ideas. http://download2.nemetschek.net/www_misc/2010/VW_GIS_Whitepaper.pdf <http://bit.ly/YLBFCt> <http://www.esri.com/library/whitepapers/pdfs/esri-location-analytics-for-bi.pdf>

The Assignment

The goals of this assignment are to assess your (1) understanding of basic methods for spatial data-gathering, presentation, and interpretation; (2) ability to interpret maps in order to analyze and critically evaluate the spatial structure of and relationships among spatial phenomena; (3) ability to apply statistical ideas to seek explanations for unusual or interesting patterns on maps, and (4) ability to evaluate the impact of spatial data sampling and uncertainty on map use

In completing this assignment you should 1) demonstrate your familiarity with basic methods of spatial data-gathering, presentation, and interpretation such that you can analyze and critically evaluate the spatial structure of and relationships among spatial phenomena in a selected area of interest; 2) gain some experience researching and extracting information to understand a topic in enough depth to be able to share your knowledge with others; and 3) gain some experience in writing for a professional audience.

In the paper you should present a map-centered argument in an area of your interest (e.g. international relations, politics, geology, criminology, philosophy, biology, anthropology, business, law, history, environmental science). Ideally this will be a topic you already know something about, so that you can contribute with your existing knowledge, but it can also be something you have to research from scratch. You could for example compare some existing examples of map use in the area of interest and make a recommendation based on some evidence. You should make a critical examination and analysis of one or more statistical arguments and, for example, compare and contrast relevant examples with not so useful ones. Make sure to acknowledge sources in your presentation.

Paper Requirements: Three to four double-spaced pages, (not to exceed 1000 -1200 words) with one inch margin all the way around with 12 point font. References, figures and tables are not included in that limit. Use MS-Word.

Content Requirements

I. Introduction: What is the topic, subject area, or problem that you will address? Briefly summarize your proposition.

II. Background, Examples, and Proposition: Provide a summary of relevant and essential information that enables the audience to grasp the subject you are examining. This needs to include a description of a geographic situation or phenomenon that has been mapped, a description of the map analysis including the use of any statistical concepts, and a discussion of what conclusions or arguments can be made based on the presented material including justification.

III. Conclusion: Speculate and make recommendations for future work and include any advice to the audience may seem relevant.

HISTORY 1682

Length: 1200 – 1500 words, not including footnotes

Papers must be typed (12-point font) and double-spaced, with at least one-inch margins on all sides. Use footnotes in Chicago Style to cite sources. You do not need to provide a bibliography.

Paper I:

Choose one of the numbered primary sources in *Documents in American History (DAH)* and write up your position on the document, making sure to include in your analysis:

1. the context and likely origin of the document;
2. the likely audience for the document and factors that motivated the creator;
3. the tone set by the document and the sorts of inferences that you might draw regarding the creator, the intended audience, and additional persons, events, or issues to which the document refers;
4. reference to and strategic use of at least two other documents in *DAH* that deal with similar events or themes;
5. factors influencing creator worldview and potential biases (e.g., Does/Do the creator[s] have any reason to avoid telling the truth as she/he/they saw it?); and
6. the overall importance, reliability, and explanatory power of the document (e.g., How might a historian use this document? How significant might the document be in constructing an interpretation of an event, group, or person? What other kinds of documents would you want to examine to corroborate its claims?).

All of these factors are interrelated, so be sure to touch on each in a coherent, well-written essay. Remember that the primary goal of this assignment is to develop and practice your skills in analysis, argument, and writing. The paper will be evaluated using the attached rubric. Note that roughly two-thirds of the score (80 points) will be based on analytical indicators and the remainder (45 points) on evidence of writing quality.

LINGUISTICS 1100

Pick an entire advertising campaign and analyze it from a linguistic perspective, in 8-10 double-spaced pages. This could be a commercial advertising campaign, a public health campaign, a political campaign, etc. Do not focus on non-linguistic factors. An ad campaign is a series of ads constructed around a single concept, such as the Mac vs. PC ad campaign, Mitt Romney's ad campaign for the 2012 presidential elections, or The Gecko's Journey Across America by Geico.

You should develop a positive (descriptive) thesis that pertains to the whole campaign and rests on linguistic evidence. The overarching question we're trying to answer in this course is how language is manipulated in advertising to effect persuasion, and so your term paper should aim to provide a partial answer to this question with respect to whatever campaign you choose. You must address how presuppositions and implicatures are used in the ad campaign you chose, in addition to whatever other linguistic factors you consider.

Analysis. You should start by making language-related observations about the advertisement pertaining to linguistic situations, the language varieties used, and any other linguistic properties of the

advertisement. Based on these observations, which serve as your evidence base, you should articulate higher level positive (descriptive) claims, ultimately culminating in a positive (descriptive) thesis.

For every linguistic observation you make about the advertisement, you should be asking yourself what the advertiser's intent was in constructing an advertisement with such linguistic properties. For example, why did the advertiser choose to construct such-and-such linguistic situation? Why do the participants talk the way they talk? Remember that ultimately we want to understand how language is manipulated in advertising to effect persuasion. As you work on developing higher level claims, including your thesis, consider whether your linguistic observations suggest answers to questions like the following: (1) Who exactly is the ad supposed to persuade—who's the target audience? (2) What is the advertiser's overall persuasive approach: List rational reasons for buying the product? Undermine the competition? Associate the product or the company with certain abstract, desirable qualities? (3) What is the advertiser deliberately or inadvertently communicating about different social groups, social norms, and so on?

Structure of the paper.

The first paragraph is the introductory paragraph in which you present your thesis and give an overview, i.e. state how exactly you will argue for that thesis in the remainder of the paper. The thesis should be positive (descriptive), and at least partly linguistic in character. It should be informative and non-trivial (e.g. "I will argue that this advertisement contains linguistic situations" is NOT a good thesis because it's obviously true).

The last paragraph is the concluding paragraph in which you should summarize what you've done in the paper, including restating your thesis. In this paragraph, you may also generalize (expand) your thesis, make speculative remarks about language and advertising, or even indulge in some normative commentary about the advertisement, or language and advertising in general. The intervening three paragraphs, the 'meat-and-potatoes' paragraphs, should each center around (a) a linguistic observation about the advertisement based on which you articulate (b) some higher level descriptive claim. These higher level descriptive claims should be jointly supporting your thesis. Your introductory paragraph should explain how exactly these three claims established by the 'meat-and-potatoes' paragraphs support your thesis.

PLANT PATHOLOGY 1100

Plant Disease Management

Develop a fact sheet to provide information about a plant disease to help home gardeners and farmers identify problems with their plants. Cite sources.

(Example fact sheets: <https://ohioline.osu.edu/topic/horticulture>)

Molds, Mushroom and Mankind

Find an example of fungi in the news and write a summary of the report and the impact on humans and/or the environment. Cite source.

PSYCHOLOGY 1110

Psychology, as a hub science, has wide-ranging connections to our lives in a number of areas. From understanding romantic relationships to the inner workings of our brain, it seems that psychology is all around us. In fact, you don't have to search too far to find a media report of psychology research. Sometimes these reports are accurate, and sometimes they greatly misrepresent the work to make things more interesting. And sometimes, they're something in between. As informed consumers of science, you should be able to critically evaluate media reports in their various forms. This assignment will sharpen your ability to evaluate psychology claims in the popular media.

Learning objectives that will be assessed:

- **RESEARCH METHODS:** Explain and identify research methods used in the discipline of psychology; read research articles to understand how researchers test hypotheses
- **CRITICAL THINKING:** Recognize and defend against common fallacies in others' thinking. Assess and evaluate the claims of psychological theories and applications of psychology found in such outlets as textbooks, newspapers, periodicals, and the internet
- **STUDENT SUCCESS AND DEVELOPMENT:** Learn how to utilize resources, such as online journal databases and reference guides

Instructions:

Step 1. Find and read a written (not a video) media report of a psychology study. This can be from any mainstream media source (*New York Times*, *BuzzFeed*, etc.).

Step 2. Find the corresponding research article that the media is reporting about (that is, the original research article that the media is reporting on). To find the original article, go to <https://library.osu.edu/> and search for the title of the article. If you're working from off-campus, be sure to click on "Off-campus sign in" under links on the right-hand side. This will allow you to access journals that you need a subscription for.

Read the original article. As you read, note whether the media article accurately reported on the study, and whether there are any differences between the two. For example, did the media exaggerate anything about the study? Did the media leave out information about the study's methods? Did the journal article give any cautions about how to interpret the results that were ignored by the media? Or did the media do a fair job reporting on it? Focus on the big picture the two articles are conveying.

Step 3. Write a response in which you evaluate the mainstream media article's treatment of the journal article. See specific questions to address below. Your response should be 500 – 750 words TOTAL (approximately 1 – 1.5 pages, typed in 12 point, Times New Roman font, SINGLE spaced, with one inch margins).

Your response should address **EACH** of the following questions (use a new paragraph for each):

1. Provide a brief (a few sentences) summary of the study that is described in the articles.

2. What type of relevant information, if any, about the study is missing from the media article? Are there any differences in how they reported findings, research methods, or implications of the research?
3. How important are the differences between the articles? Do they make the media report misleading? Explain.
4. Do you feel that the headline of the media article is a good representation of the journal article? Explain.
5. Does reading the journal article change your conclusions/opinions of the findings as reported in the media article? Why or why not? Be specific. *Note: it is okay to refer to yourself using "I" for this assignment!*

Step 4.

Include APA style references for both the journal article and the media article on a separate page at the end of your paper, as well as for any other ideas you reference that are not your own.

STATISTICS 1350

This semester, we want to provide you with an opportunity to become more aware of the statistical information that is around you every day. For this journal assignment, your task will be to find and write about at least 10 media reports where statistics is being presented or used in some way. To receive full credit, you will need to share each of these media reports, and you will need to write about how the media reports relate to information you have learned about in STAT 1350.

Journal Requirements

Your journal may be neatly handwritten or typed. We prefer for you to type your work, but we also want this assignment to be flexible enough for you to do at any time, in any place. You never know when you might find the perfect article to write about!

For each of your journal entries, you will need to include a minimum of three things:

1. Give the title of the media report and the source for the report (i.e., where you found the report). Include a link to the media report or a copy of the actual media report.
2. Include a brief summary of the media report. Imagine that you are attempting to summarize this media report for a friend.
3. Discuss how the media report relates what you have learned in STAT 1350. For instance, the media report might provide a nice illustration of a concept you read about in your textbook, or it might relate to an idea or an example that was discussed in lecture.

There is no minimum or maximum word length expected for each journal entry. As long as you include all three elements listed above, you should receive full credit for your work.

2 -RESEARCH QUESTIONS

THE PURPOSE OF RESEARCH QUESTIONS



Research questions are very important.

Both professional researchers and successful student researchers develop research questions. That's because research questions are more than handy tools; they are essential to the research process.

By defining exactly what the researcher is trying to find out, these questions influence most of the rest of the steps taken to conduct the research. That's true even if the research is not for academic purposes but for other areas of our lives.

For instance, if you're seeking information about a health problem in order to learn whether you have anything to worry about, research questions will make it possible for you to more effectively decide whether to seek medical help—and how quickly.

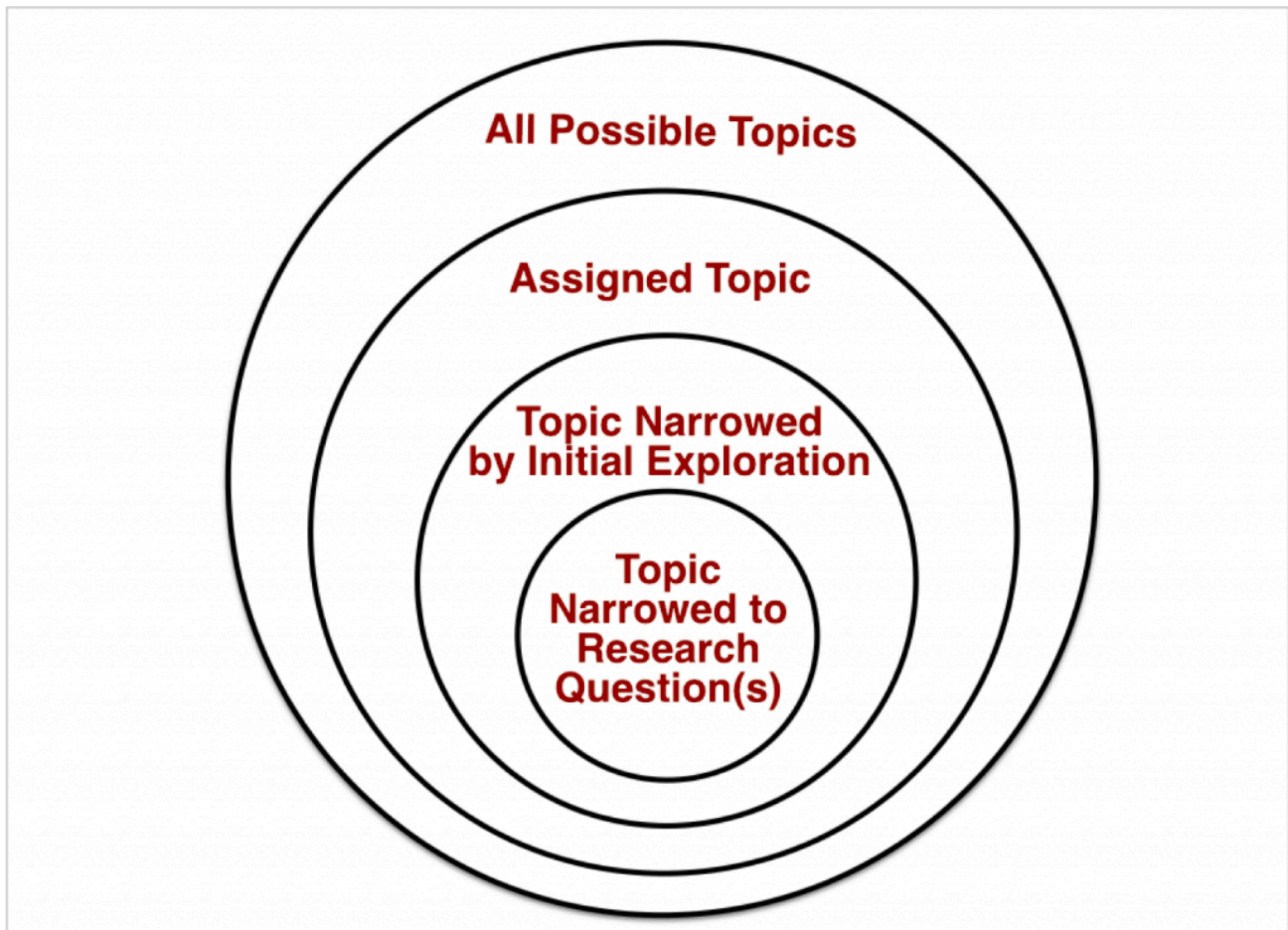
Or, if you're researching a potential employer, having developed and used research questions will mean you're able to more confidently decide whether to apply for an internship or job there.

The confidence you'll have when making such decisions will come from knowing that the information they're based on was gathered by conscious thought rather than serendipity and whim.

NARROWING A TOPIC

For many students, having to start with a research question is the biggest difference between how they did research in high school and how they are required to carry out their college research projects. It's a process of working from the outside in: you start with the world of all possible topics (or your assigned topic) and narrow down until you've focused your interest enough to be able to tell precisely what you want to find out, instead of only what you want to "write about."

Process of Narrowing a Topic



Visualize narrowing a topic as starting with all possible topics and choosing narrower and narrower subsets until you have a specific enough topic to form a research question.

All Possible Topics – You’ll need to narrow your topic in order to do research effectively. Without specific areas of focus, it will be hard to even know where to begin.

Assigned Topics – Ideas about a narrower topic can come from anywhere. Often, a narrower topic boils down to deciding what’s interesting to you. One way to get ideas is to read background information in a source like Wikipedia.

Topic Narrowed by Initial Exploration – It’s wise to do some more reading about that narrower topic to a) learn more about it and b) learn specialized terms used by professionals and scholars who study it.

Topic Narrowed to Research Question(s) – A research question defines exactly what you are trying to find out. It will influence most of the steps you take to conduct the research.

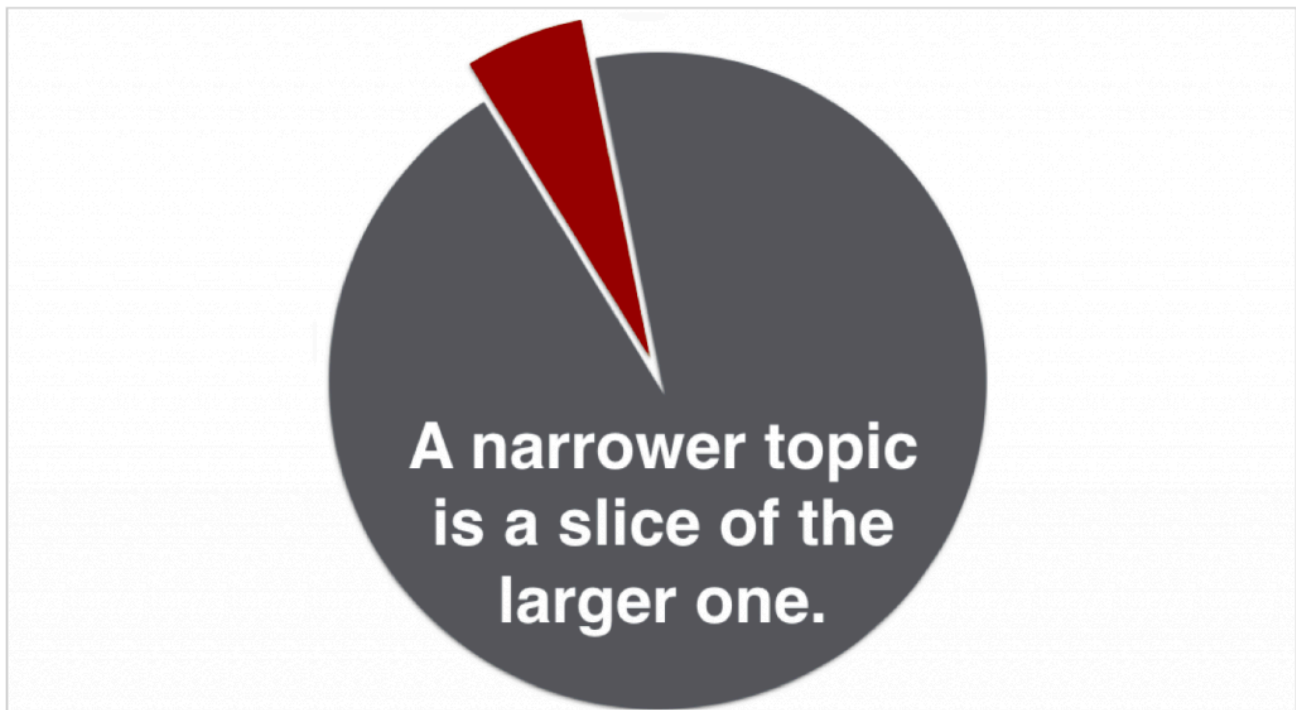
ACTIVITY: Which Topic Is Narrower?

[Open activity in a web browser.](#)

Why Narrow a Topic?

Once you have a need for research—say, an assignment—you may need to prowl around a bit online to explore the topic and figure out what you actually want to find out and write about.

For instance, maybe your assignment is to develop a poster about “spring” for an introductory horticulture course. The instructor expects you to narrow that topic to something you are interested in and that is related to your class.



Another way to view a narrowed topic is as a sliver of the whole topic.

Ideas about a narrower topic can come from anywhere. In this case, a narrower topic boils down to deciding what’s interesting to you about “spring” that is related to what you’re learning in your horticulture class and small enough to manage in the time you have.

One way to get ideas would be to read about spring in Wikipedia, looking for things that seem interesting and relevant to your class, and then letting one thing lead to another as you keep reading and thinking about likely possibilities that are more narrow than the enormous “spring” topic. (Be sure to pay attention to the references at the bottom of most Wikipedia pages and pursue any that look interesting. Your instructor is not likely to let you cite Wikipedia, but those references may be citable scholarly sources that you could eventually decide to use.)

Or, instead, if it is spring at the time you could start by just looking around, admire the blooming trees on campus, and decide you’d like your poster to be about bud development on your favorites, the crabapple trees.

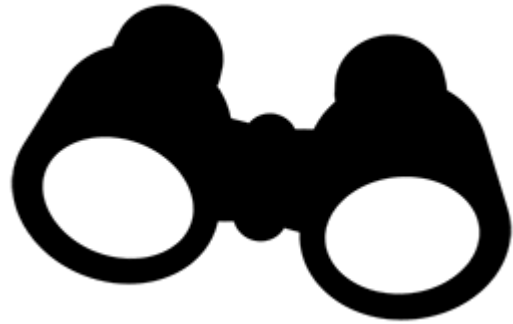
BACKGROUND READING

It's wise to do some more reading about that narrower topic once you have it. For one reason, you probably don't know much about it yet. For another, such reading will help you learn the terms used by professionals and scholars who have studied your narrower topic. Those terms are certain to be helpful when you're looking for sources later, so jot them down or otherwise remember them.

For instance, if you were going to do research about the treatment for humans with bird flu, this background reading would teach you that professionals and scholars usually use the term avian influenza instead of bird flu when they write about it. (Often, they also use H1N1 or H1N9 to identify the strain.) If you didn't learn that, you would miss the kinds of sources you'll eventually need for your assignment.

Most sources other than journal articles are good sources for this initial reading, including the *New York Times* or other mainline American news outlets, Wikipedia, encyclopedias for the discipline your topic is in (horticulture for the crabapple bud development topic, for instance), dictionaries for the discipline, and manuals, handbooks, blogs, and web pages that could be relevant.

This initial reading could cause you to narrow your topic further, which is fine because narrower topics lead to greater specificity for what you have to find out. After this upfront work, you're ready to start developing the research question(s) you will try to answer for your assignment.



Get a good look at your topic through background reading.

Tip: Keeping Track of Your Information

While you are in the background reading phase of your research you will come across a lot of sources and won't know yet if they will prove useful in the long run. A handy type of software to help you keep track of all your findings is called citation management software. It will also be extremely valuable when it comes to using the resources you end up needing. Three of these tools are available for free to OSU students, staff and faculty. [Learn more about these tools and how to access them.](#)



Fuel Your Inspiration

It's worth remembering that reading, scanning, looking at, and listening to information resources is very useful during any step of the process to develop research questions. Doing so can jog our memories, give us details that will help us focus, and help us connect disparate information—all of which will help us come up with research questions that we find interesting.

REGULAR VS. RESEARCH QUESTIONS

Most of us look for information to answer questions every day, and we often act on the answers to those questions. Are research questions any different from most of the questions for which we seek information? Yes.

See how they're different by looking over the examples of both kinds below and answering questions about them in the next activity.

Examples: Regular vs. Research Questions

Regular Question: What time is my movie showing at Lennox on Friday?

Research Question: How do "sleeper" films end up having outstanding attendance figures?

Regular Question: What can I do about my insomnia?

Research Question: How do flights more than 16 hours long affect the reflexes of commercial jet pilots?

Regular Question: How many children in the U.S. have allergies?

Research Question: How does his or her country of birth affect a child's chances of developing asthma?

Regular Question: What year was metformin approved by the U.S. Food and Drug administration?

Research Question: Why are nanomedicines, such as doxorubicin, worth developing?

Regular Question: Could citizens register to vote at branches of the Columbus Public Library in 2016?

Research Question: How do public libraries in the United States support democracy?

Regular Question: What is the Whorfian Hypothesis?

Research Question: Why have linguists cared about the Whorfian hypothesis?

Regular Question: Where is the Apple, Inc. home office?

Research Question: Why are Apple's marketing efforts so successful?

Regular Question: What is Mers?

Research Question: How could decision making about whether to declare a pandemic be improved?

Regular Question: Does MLA style recommend the use of generic male pronouns intended to refer to both males and females?

Research Question: How do age, gender, IQ, and socioeconomic status affect whether students interpret generic male pronouns as referring to both males and females?

Activity: Which Kind of Question

[Open activity in a web browser.](#)

INFLUENCE OF A RESEARCH QUESTION

Whether you're developing research questions for your personal life, your work for an employer, or for academic purposes, the process always forces you to figure out exactly:

- What you're interested in finding out.
- What it's feasible for you to find out (given your time, money, and access to information sources).
- How you can find it out, including what research methods will be necessary and what information sources will be relevant.
- What kind of claims you'll be able to make or conclusions you'll be able to draw about what you found out.

For academic purposes, you may have to develop research questions to carry out both large and small assignments. A smaller assignment may be to do research for a class discussion or to, say, write a blog post for a class; larger assignments may have you conduct research and then report it in a lab report, poster, term paper, or article.

For large projects, the research question (or questions) you develop will define or at least heavily influence:

- Your **topic**, in that research questions effectively narrow the topic you've first chosen or been assigned by your instructor.
- What, if any, **hypotheses** you test.
- Which **information sources** are relevant to your project.
- Which **research methods** are appropriate.
- What claims you can make or **conclusions** you can come to as a result of your research, including what **thesis statement** you should write for a term paper or what **results section** you should write about the data you collected in your own science or social science study.



Your research question drives your hypothesis, research methods, sources, and your claims or conclusions.

Influence on Thesis

Within an essay, poster, or term paper, the thesis is the researcher's answer to the research question(s). So as you develop research questions, you are effectively specifying what any thesis in your project will be about. While perhaps many research questions could have come from your original topic, your question states exactly which one(s) *your* thesis will be answering.

For example, a topic that starts out as "desert symbiosis" could eventually lead to a research question that is "how does the diversity of bacteria in the gut of the Sonoran Desert termite contribute to the termite's survival?" In turn, the researcher's thesis will answer that particular research question instead of the numerous other questions that could have come from the desert symbiosis topic.

Developing research questions is all part of a process that leads to greater and greater specificity for your project.

Tip: Don't Make These Mistakes

Sometimes students inexperienced at working with research questions confuse them with the search statements they will type into the search box of a search engine or database when looking for sources for their project. Or, they confuse research questions with the thesis statement they will write when they report their research. The next activity will help you sort things out.

Activity: From Topic to Thesis Statement

[Open activity in a web browser.](#)

Influence on Hypothesis

If you're doing a study that predicts how variables are related, you'll have to write at least one hypothesis. The research questions you write will contain the variables that will later appear in your hypothesis(es).

Activity: Guess the Question

Despite how strong their influence is on the rest of the researcher's tasks, research questions don't always appear in a report of the research. Nonetheless, you can usually figure out what the researcher's research questions were by reading the title and some of the report. Take a look at this article "[Getting to the Center of a Tootsie Roll Pop®](#)" [OSU login required] and determine what the students' research question was.

Influence on Resources

You can't tell whether an information source is relevant to your research until you know exactly what you're trying to find out. Since it's the research questions that define that, it's they that divide all information sources into two groups: those that are relevant to your research and those that are not—all based on whether each source can help you find out what you want to find out and/or report the answer.

Influence on Research Methods

Your research question(s) will help you figure out what research methods you should use because the questions reflect what your research is intended to do. For instance, if your research question relates to describing a group, survey methods may work well. But they can't answer cause-and-effect questions.

Influence on Claims or Conclusions

The research questions you write will reflect whether your research is intended to describe a group or situation, to explain or predict outcomes, or to demonstrate a cause-and-effect relationship(s) among variables. It's those intentions and how well you carry out the study, including whether you used methods appropriate to the intentions, that will determine what claims or conclusions you can make as a result of your research.

Activity: Quick Check

[Open activity in a web browser.](#)

Answer to Activity: Guess the Question

The answer to the “Guess the Question” Activity above is:

What was the students’ research question? How many licks does it take to get to the center of a Tootsie Roll Pop?

DEVELOPING YOUR RESEARCH QUESTION

Because of all their influence, you might worry that research questions are very difficult to develop. Sometimes it can seem that way. But we'll help you get the hang of it and, luckily, none of us has to come up with perfect ones right off. It's more like doing a rough draft and then improving it. That's why we talk about *developing* research questions instead of just writing them.

Steps for Developing a Research Question

The steps for developing a research question, listed below, can help you organize your thoughts.

Step 1: Pick a topic (or consider the one assigned to you).

Step 2: Write a narrower/smaller topic that is related to the first.

Step 3: List some potential questions that could logically be asked in relation to the narrow topic.

Step 4: Pick the question that you are most interested in.

Step 5: Change that question you're interested in so that it is more focused.

MOVIE: Developing Research Questions

As you view this short video on how to develop research questions, think about the steps. Which step do you think is easiest? Which do you think is hardest?

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=38>

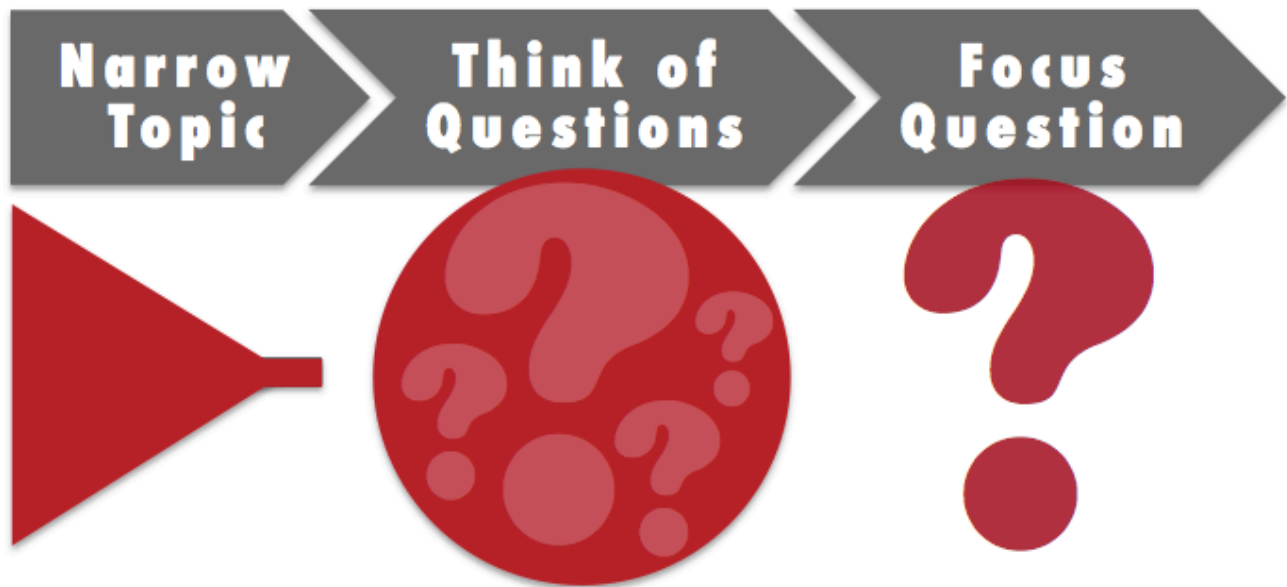
[View Movie](#) | [View Text Version](#)

Practice

Once you know the steps and their order, only three skills are involved in developing a research question:

- Imagining narrower topics about a larger one,
- Thinking of questions that stem from a narrow topic, and
- Focusing questions to eliminate their vagueness.

Every time you use these skills, it's important to evaluate what you have produced—that's just part of the process of turning rough drafts into more finished products.



Three steps for developing a research question

ACTIVITY: Developing a Research Question

[Open activity in a web browser.](#)

Maybe you have a topic in mind, but aren't sure how to form a research question around it. The trick is to think of a question related to your topic, but not answerable with a quick search. Also, try to be specific so that your research question can be fully answered in the final product for your research assignment.

ACTIVITY: Thinking of Questions

For each of the narrow topics below, think of a research question that is logically related to that topic. (Remember that good research questions often, but not always, start with “Why” or “How” because questions that begin that way usually require more analysis.)

Topics:

- U.S. investors' attitudes about sustainability
- College students' use of Snapchat
- The character Scout in *To Kill a Mockingbird*
- Nature-inspired nanotechnologies
- Marital therapy

After you think of each research question, evaluate it by asking whether it is:

- Logically related to the topic
- In question form
- Not answerable with a quick Google search
- Specific, not vague

Sometimes the first draft of a research question is still too broad, which can make your search for sources more challenging. Refining your question to remove vagueness or to target a specific aspect of the topic can help.

ACTIVITY: Focusing Questions

The first draft research questions below are not focused enough. Read them and identify at least one area of vagueness in each. Check your vagueness with what we identified. It's great if you found more than we did because that can lead to research questions of greater specificity. See the bottom of the page for the answers.

First Drafts of Research Questions:

1. Why have most electric car company start-ups failed?
 2. How do crabapple trees develop buds?
 3. How has NASA helped America?
 4. Why do many first-time elections soon after a country overthrows a dictator result in very conservative elected leaders?
 5. How is music composed and performed mostly by African-Americans connected to African-American history?
-

ANSWER TO ACTIVITY: Focusing Questions

Some answers to the “Focusing Questions” Activity above are:

Question 1: Why have most electric car company start-ups failed?

Vagueness: Which companies are we talking about? Worldwide or in a particular country?

Question 2: How do crabapple trees develop buds?

Vagueness: There are several kinds of crabapples. Should we talk only about one kind? Does it matter where the crabapple tree lives?

Question 3: How has NASA helped America?

Vagueness: NASA has had many projects. Should we should focus on one project they completed? Or projects during a particular time period?

Question 4: Why do many first-time elections soon after a country overthrows a dictator result in very conservative elected leaders?

Vagueness: What time period are we talking about? Many dictators have been overthrown and many countries have been involved. Perhaps we should focus on one country or one dictator or one time period.

Question 5: How is music composed and performed mostly by African-Americans connected to African-American history?

Vagueness: What kinds of music? Any particular performers and composers? When?

3-TYPES OF SOURCES

CATEGORIZING SOURCES



Understanding types of sources helps guide your search.

Once you have your research question, you'll need information sources to answer it and meet the other information needs of your research project.

Generally, sources fall into these basic categories:

[Modified from: Michelle Miller & Anne Greenhoe, *Transition with Purpose: Pathways from English Language to Academic Study* (2018). Portland State University. Reproduced with additions from: Skidmore College, NY: Common Terms for Paper Topics and Essay Questions: <http://www.skidmore.edu/academics/writingbrd/qwords.HTML>
Permission from: Professor Michael Steven Marx, Associate Professor of English and Coordinator of Liberal Studies 1, English Department, Skidmore College, Saratoga Springs, NY 12866.

This section about categorizing sources will increase your sophistication about them and save you time in the long run because you'll understand the "big picture". That big picture will be useful as you

COMMON TYPES OF SOURCES	DETAILS
Web-based	There are many types of online information, including e-journals, home-pages, newsgroups, and more. When you discuss “web-based” resources, be specific about what sort of online information you are referring to.
Scholarly journals	Articles are long, use terminology or jargon of the discipline, usually begin with an abstract and include a bibliography (e.g., <i>Canadian Journal of Experimental Psychology</i> ; <i>Journal of Academic Librarianship</i> ; <i>IEEE Transactions on Microwave Theory and Techniques</i>).
Popular journals	These are geared towards a more general audience and available on your local newsstand. Articles are short and rarely have bibliographies. (e.g., <i>Maclean's</i> , <i>Newsweek</i>).
Current	Specifically define your boundaries for “current.” Do you mean “current” as in this week, this year, this decade, this century, etc.? Can they refer to older material at all, if it is relevant?
Peer reviewed (or refereed) journal articles	Explain the process of having experts in the field examine an article before it is published to ensure that the research described is sound and of high quality. Refer students to the Notes for Authors section of a journal to determine if it follows peer review.
Primary sources	These provide firsthand information in the original words of the creator or eyewitness and may include creative works, original documents, reports of original research, or ideas.
Secondary sources	These provide information reviews and/or, evaluation, analysis or interpretations of primary sources

plan your own sources for a specific research project, which we'll help you with in the next section [Sources and Information Needs](#).

You'll usually have a lot of sources available to meet the information needs of your projects. In today's complex information landscape, just about anything that contains information can be considered a potential source.

Here are a few examples:

- Books and encyclopedias
- Websites, web pages, and blogs
- Magazine, journal, and newspaper articles
- Research reports and conference papers
- Field notes and diaries
- Photographs, paintings, cartoons, and other art works
- TV and radio programs, podcasts, movies, and videos
- Illuminated manuscripts and artifacts
- Bones, minerals, and fossils
- Preserved tissues and organs
- Architectural plans and maps
- Pamphlets and government documents

- Music scores and recorded performances
- Dance notation and theater set models

With so many sources available, the question usually is not whether sources exist for your project but which ones will best meet your information needs.

Being able to categorize a source helps you understand the kind of information it contains, which is a big clue to (1) whether it might meet one or more of your information needs and (2) where to look for it and similar sources.

A source can be categorized by:

- Whether it contains quantitative or qualitative information or both
- Whether the source is objective (factual) or persuasive (opinion) and may be biased
- Whether the source is a scholarly, professional or popular publication
- Whether the material is a primary, secondary or tertiary source
- What format the source is in

As you may already be able to tell, sources can be in more than one category at the same time because the categories are not mutually exclusive.

QUANTITATIVE OR QUALITATIVE

One of the most obvious ways to categorize information is by whether it is quantitative or qualitative. Some sources contain either quantitative information or qualitative information, but sources often contain both.

Many people first think of information as something like what's in a table or spreadsheet of numbers and words. But information can be conveyed in more ways than textually or numerically.

Quantitative Information – Involves a measurable quantity—numbers are used. Some examples are length, mass, temperature, and time. Quantitative information is often called data.






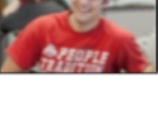
Qualitative Information – Involves a descriptive judgment using concept words instead of numbers. Gender, country name, animal species, and emotional state are examples of qualitative information.

Take a quick look at the Example table below. Another way we could display the table's numerical information is in a graphic format —listing the students' ages or GPAs on a bar chart, for example, rather than in a list of numbers. Or, all the information in the table could be displayed instead as a video of each student giving those details about themselves.



Information can be quantitative or qualitative.

Example: Data Table with Quantitative and Qualitative Data

Last Name	First Name	Age	Rank	Major	Gender	Current GPA	Photo
Adams	Grace	19	Sophomore	English	Female	3.78	
Bloomfield	Erika	21	Junior	Physics	Female	3.89	
Chow	Kimmie	20	Senior	Political Science	Female	3.77	
Crutchfield	Seth	23	Senior	Psychology	Male	3.58	
Fitch	Fredrick	18	Freshman	Art	Male	4.0	
Grover	Oscar	26	Junior	Biology	Male	3.32	

This table illustrates that information can include a range of formats, including pictures.

Increasingly, other formats (such as images, sound, and video) may be is used as information or used to convey information. Some examples:

- A video of someone watching scenes from horror movies, with information about their heart rate and blood pressure embedded in the video. Instead of getting a description of the person's reactions to the scenes, you can see their reactions.
- A database of information about birds, which includes a sound file for each bird singing. Would you prefer a verbal description of a bird's song or an audio clip?
- A list of colors, which include an image of the actual color. Such a list is extremely helpful, especially when there are A LOT of color names.
- A friend orally tells you that a new pizza place is 3 blocks away, charges \$2 a slice, and that the pizza is delicious. This may never be recorded, but it may be very valuable information if you're hungry!
- A map of Ohio with counties shaded different intensities of red according to the median household income of inhabitants.

Activity: Quantitative vs. Qualitative

Check out [these examples](#) of quantitative vs. qualitative data. Now, think about yourself. What quantitative and qualitative data components might you use to describe yourself? See the bottom of the page for some possible answers.

Activity: Multiple Data Displays

Take a look at the [Wikipedia article about UN Secretaries-General](#). Scroll down and view the table of people who served as Secretary-General. In what ways is information conveyed in ways other than text or numbers? See the bottom of the page for answers.

Answer to Activity: Quantitative vs. Qualitative

The answer to the “Quantitative vs. Qualitative” Activity above is:

Quantitative: age, weight, GPA, income

Qualitative: race, gender, class (freshman, sophomore, etc.), major

Are there others?

Answer to Activity: Multiple Data Displays

The answer to the “Multiple Data Displays” Activity above is:

- A photo of each secretary general
- The flag of their country of origin
- A world map with their country of origin shaded

Are there others?

FACT OR OPINION

Thinking about the reason an author produced a source can be helpful to you because that reason was what dictated the kind of information he/she chose to include. Depending on that purpose, the author may have chosen to include factual, analytical, and objective information. Or, instead, it may have suited his/her purpose to include information that was subjective and therefore less factual and analytical. The author's reason for producing the source also determined whether he or she included more than one perspective or just his/her own.

Authors typically want to do at least one of the following:

- Inform and educate
- Persuade
- Sell services or products or
- Entertain



An author's purpose can influence the kind of information he or she chooses to include.

Combined Purposes

Sometimes authors have a combination of purposes, as when a marketer decides he can sell more smart phones with an informative sales video that also entertains us. The same is true when a singer writes and performs a song that entertains us but that she intends to make available for sale. Other examples of authors having multiple purposes occur in most scholarly writing.

In those cases, authors certainly want to inform and educate their audiences. But they also want to persuade their audiences that what they are reporting and/or postulating is a true description of a situation, event, or phenomenon or a valid argument that their audience must take a particular action. In this blend of scholarly author's purposes, the intent to educate and inform is considered to trump the intent to persuade.

Why Intent Matters

Authors' intent usually matters in how useful their information can be to your research project, depending on which information need you are trying to meet. For instance, when you're looking for sources that will help you actually decide your answer to your research question or evidence for your answer that you will share with your audience, you will want the author's main purpose to have been to inform or educate his/her audience. That's because, with that intent, he/she is likely to have used:

- Facts where possible.
- Multiple perspectives instead of just his/her own.
- Little subjective information.
- Seemingly unbiased, objective language that cites where he/she got the information.

The reason you want that kind of resource when trying to answer your research question or explaining that answer is that all of those characteristics will lend credibility to the argument you are making with your project. Both you and your audience will simply find it easier to believe—will have more confidence in the argument being made—when you include those types of sources.

Sources whose authors intend only to persuade others won't meet your information need for an answer to your research question or evidence with which to convince your audience. That's because they don't always confine themselves to facts. Instead, they tell us their opinions without backing them up with evidence. If you used those sources, your readers will notice and not believe your argument.

Fact vs. Opinion vs. Objective vs. Subjective

Need to brush up on the differences between fact, objective information, subjective information, and opinion?

Fact – Facts are useful to inform or make an argument.

Examples:

- The United States was established in 1776.
- The pH levels in acids are lower than pH levels in alkalines.
- Beethoven had a reputation as a virtuoso pianist.

Opinion – Opinions are useful to persuade

Examples:

- That was a good movie.
- Strawberries taste better blueberries.
- George Clooney is the sexiest actor alive.
- The death penalty is wrong.
- Beethoven's reputation as a virtuoso pianist is overrated.

Objective – Objective information reflects a research finding or multiple perspectives that are not biased.

Examples:

- "Several studies show that an active lifestyle reduces the risk of heart disease and diabetes."
- "Studies from the Brown University Medical School show that twenty-somethings eat 25 percent more fast-food meals at this age than they did as teenagers."

Subjective – Subjective information presents one person or organization's perspective or interpretation. Subjective information can be meant to distort, or it can reflect educated and informed thinking. All opinions are subjective, but some are backed up with facts more than others.

Examples:

- "The simple truth is this: As human beings, we were meant to move."

- “In their thirties, women should stock up on calcium to ensure strong, dense bones and to ward off osteoporosis later in life.”*

*In this quote, it’s mostly the “should” that makes it subjective. The objective version of the last quote would read: “Studies have shown that women who begin taking calcium in their 30s show stronger bone density and fewer repercussions of osteoporosis than women who did not take calcium at all.” But perhaps there are other data showing complications from taking calcium. That’s why drawing the conclusion that requires a “should” makes the statement subjective.

Activity: Fact, Opinion, Objective, or Subjective?

[Open activity in a web browser.](#)

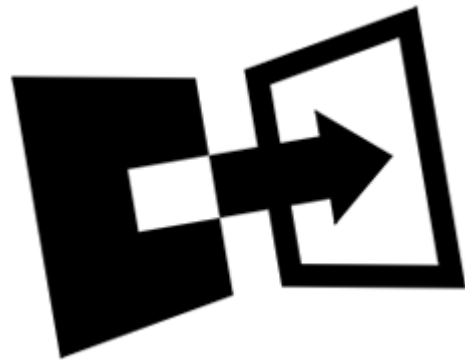
PRIMARY, SECONDARY & TERTIARY SOURCES

Another information category is publication mode, which has to do with whether the information is in its original form, a restatement or interpretation of original information, or something that summarizes original information.

Information may be a:

Primary Source – Information in its original form, which is not translated by anyone else and has not been published elsewhere. Such as:

- A play
- A novel
- Breaking news
- An advertisement
- An eyewitness account
- A painting
- A report about a scientific discovery



Another way to categorize information is by whether information is in its original format or has been reinterpreted.

Secondary Source – Repackaged, restatement, or interpretation of primary information. Such as:

- A book about an historical event
- An article that critiques a novel, play or painting
- An article or web site that summarizes and synthesizes several eyewitness accounts for a new understanding of an event.

Tertiary Source – An index or something that condenses or summarizes information. Such as:

- Almanacs
- Guide books
- Survey articles
- Timelines
- User guides
- Encyclopedias

Primary sources include those that can answer your research questions and convince your audience that your answer is the correct one or at least a reasonable one. However, in our discussion of mode, it's important to recognize that academic disciplines vary in what kinds of sources they consider primary sources. In other words, different disciplines accept different sources as those that can speak with

authority—as those that can meet the information needs of answering your research question and convincing your audience your answer is correct or at least reasonable.

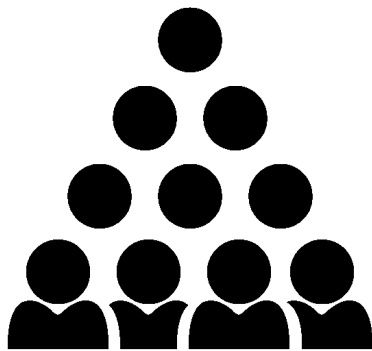
For instance, in the humanities, sciences, and social sciences, peer-reviewed scholarly journal articles are considered the most authoritative. But in the arts, it is the art itself—for instance, the painting, the choral performance, the hip-hop dancing done on the street—that speaks most convincingly. That doesn't mean you could never use a video of a hip-hop dancer in a project for sociology or other social science. But if you did, it would not be to answer your research question or to convince your audience you have the right answer. It would be to meet another information need—for instance, to describe the situation surrounding your research question for your audience or convince them it is important.

If you haven't been able to tell what sort of sources your instructor considers able to answer your research questions and convince your audience, do ask him or her. It's an important question, and he or she will probably be impressed that you know enough to ask it.

Activity: Primary, Secondary, or Tertiary?

[Open activity in a web browser.](#)

POPULAR, PROFESSIONAL, & SCHOLARLY



We can also categorize information by the expertise of its intended audience. Considering the intended audience—how expert one has to be to understand the information—can indicate whether the source has sufficient credibility and thoroughness to meet your need.

There are varying degrees of expertise:

Popular – Popular newspaper and magazine articles (such as *The Washington Post*, the *New Yorker*, and *Rolling Stone*) are meant for a large general audience, are generally affordable, and are easy to purchase or available for free. They are written by staff writers or reporters for the general public.

Additionally, they are:

- About news, opinions, background information, and entertainment.
- More attractive than scholarly journals, with catchy titles, attractive artwork, and many advertisements but no footnotes or references.
- Published by commercial publishers.
- Published after approval from an editor.
- For information on using news articles as sources (from newspapers in print and online, broadcast news outlets, news aggregators, news databases, news feeds, social media, blogs, and citizen journalism), see [News as a Source](#).

Professional – Professional magazine articles (such as *Plastic Surgical Nursing* and *Music Teacher*) are meant for people in a particular profession, and are often accessible through a professional organization. Staff writers or other professionals in the targeted field write these articles at a level and with the language to be understood by everyone in the profession.

Additionally, they are:

- About trends and news from the targeted field, book reviews, and case studies.
- Often less than 10 pages, some of which may contain footnotes and references.
- Usually published by professional associations and commercial publishers.
- Published after approval from an editor.

Scholarly – Scholarly journal articles (such as *Plant Science* and *Education and Child Psychology*) are meant for scholars, students, and the general public who want a deep understanding of a problem or issue. Researchers and scholars write these articles to present new knowledge and further understanding of their field of study.

Additionally, they are:

- Where findings of research projects, data and analytics, and case studies usually appear first.
- Often long (usually over 10 pages) and always include footnotes and references.
- Usually published by universities, professional associations, and commercial publishers.
- Published after approval by peer review or from the journal's editor.

See [Scholarly Articles as Sources](#) for more detail.

Tip: Source Locator

Our [Source Locator](#) can help you see where sources of every audience expertise level (popular, professional, and scholarly) are located.

Activity: Popular, Professional, or Scholarly?

[Open activity in a web browser.](#)

PUBLICATION FORMATS AND THE INFORMATION LIFECYCLE

We can also categorize sources by publication format. That's because of the difference in time and effort sources in each format require for their production.



Sources in particular formats simply cannot exist until there has been enough time for people to create them. The result is that the sources that are created toward the end of the information lifecycle may come to very different conclusions about the event than did those sources created early on.

Sometimes the information presented in the later formats is more valid and reliable than what is in those produced earlier.

A very good example is that conclusions about the Columbine High School shooting in 1999 and the causes of that tragedy reached by books—which took years to complete after the event—were likely to be very different than the conclusions reached by news coverage created early on. For instance, many early reports concluded that the two teens responsible for the shooting had been shunned by their classmates and that it was the pain of their exclusion that had moved them to take revenge. Consequently, many K-12 schools nationwide took steps to try to ensure that all students felt included in their student bodies. But more time-consuming reportage concluded that the boys were not shunned (one had had a date for prom activities just days before) and that it was mental illness that made them kill their classmates.

Movie: Information Cycle

This video explains what kinds of information sources about an event can exist at any point in time during and after that event.

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=58>

[View Movie](#) | [View Text Version](#)

Activity: The Information Lifecycle

[Open activity in a web browser.](#)

A Closer Look at Common Formats

Books – Usually a substantial amount of information, published at one time and requiring great effort on the part of the author and a publisher.

Magazines/Journals – Published frequently, containing lots of articles related to some general or specific professional research interest; edited.

Newspapers – Each is usually a daily publication of events of social, political and lifestyle interest.

Web sites – Digital items, each consisting of multiple pages produced by someone with technical skills or the ability to pay someone with technical skills.

Articles – Distinct, short, written pieces that might contain photos and are generally timely. Timeliness can mean that it's something that is of interest to readers at the point of publication or that is something the writer is thinking about or researching at a given point of time.

Tip: Evaluating Articles

Evaluating whether articles are **credible** enough for your information need is similar to evaluating any other source. There's more information on evaluating in [Evaluating Sources](#).

Conference Papers – Written form of papers delivered at a professional or research-related conference. Authors are generally practicing professionals or scholars in the field.

Blogs – Frequently updated websites that do not necessarily require extensive technical skills and can

be published by virtually anyone for no cost to themselves other than the time they devote to content creation. Usually marked by postings that indicate the date when each was written.

Documentaries – Works, such as a film or television program, presenting political, social, or historical subject matter in a factual and informative manner and often consisting of actual news films or interviews accompanied by narration.

Online Videos – Short videos produced by anybody, with a lot of money or a little money, about anything for the world to see. Common sites for these are YouTube and Vimeo.

Podcasts – Digital audio files, produced by anyone and about anything, that are available for downloading, often by subscription.

Activity: Best Format for Your Need

[Open activity in a web browser.](#)

SCHOLARLY ARTICLES AS SOURCES

Articles in scholarly journals are valued for several reasons. First, they are usually trustworthy because their publication process includes a peer review that helps insure their accuracy and contribution to their disciplines. In addition, they often contain the first reports of new research, which makes their sections on methodology, data, analysis, and interpretation primary sources. Sometimes they instead consist of literature reviews summaries of multiple research studies done in the past on particular subjects of current interest. That makes those articles very helpful secondary sources.

Peer-Reviewed Sources

The most-respected scholarly journals are peer-reviewed, which means that experts in their field other than the author and editor check out each article before it can be published. It's their responsibility to help guarantee that new material is presented in the context of what is already known, that the methods the researcher used are the right ones, and that the article contributes to the field.

For those reasons, peer-reviewed articles are more likely to be credible. Peer-reviewed journal articles are the official scholarly record, which means that if it's an important development in research, it will probably turn up in a journal article eventually.

Parts of a Scholarly Article

The articles you use for your assignments must also be **relevant** to your research question—not just credible. Reading specific parts of an article can help save you time as you decide whether an article is relevant.

Movie: Guided Tour of Scholarly Articles

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=60>

[View playlist](#)

Activity: Parts of a Scholarly Article

[Open activity in a web browser.](#)

Finding Scholarly Articles

Most scholarly articles are housed in specialized databases. Libraries (public, school, or company) often provide access to scholarly databases by paying a subscription fee for patrons. For instance, OSU Libraries provide access to hundreds of databases via its [Research Databases List](#) that are made available free to people affiliated with the University. You can search for a journal title in these databases or view a list of databases by subject. For more information, including how to search databases, see [Specialized Databases](#).

Databases that aren't subject-specific are called general databases. [Google Scholar](#) is a free general scholarly database available to all who have access to the Internet, and it provides some scholarly articles. For more information, see our section on using [Google Scholar](#).

Tip: Known Article Searching

What if you have a citation for an article you need and now have to find the actual text of the article? Follow these instructions to [Access to a Known Journal Article](#).

NEWS AS A SOURCE

News sources can provide insights that scholarly sources may not or that will take a long time to get into scholarly sources. For instance, news sources are excellent for finding out people's reactions, opinions, and prevailing attitudes around the time of an event.

So whether news sources are good for your assignment depends on what your research question is. (You'll find other relevant information at [Sources and Information Needs](#).)

News is a strange term, because even when the information is old, it's still news. Some sources are great for breaking news, some are great for aggregated (or compiled) news, and others are great for historical news.

While news was transmitted for centuries only in newspapers, news is now transmitted in all formats: via radio, television, and the Internet, in addition to print. Even most newspapers have Internet sites today.

News must be brief because much of it gets reported only moments after an event happens. News reports occur early in the Information Lifecycle. See [Publication Formats and the Information Lifecycle](#) for more information.

When Are News Sources Helpful?

- You need breaking news or historical perspectives on a topic (what people were saying at the time).
- You need to learn more about a culture, place, or time period from its own sources.
- You want to keep up with what is going in the world today.

When Are News Sources of Limited Use?

- You need very detailed analysis by experts.
- You need sources that must be scholarly or modern views on a historical topic.

Activity: Using News Effectively

[Open activity in a web browser.](#)

Mainline and Non-Mainline News Sources

Mainline American news outlets stick with the tradition of trying to report the news as objectively as possible. That doesn't mean their reports are perfectly objective, but they are more objective than the non-mainline sources. As a result, mainline news sources are more credible than non-mainline sources. Some examples of mainline American news outlets: *The New York Times*, *The Washington Post*, *The Boston Globe*, *The Chicago Tribune*, *The Los Angeles Times*; ABC News, CBS News, NBC News, PBS News, NPR News.

News from non-mainline American news outlets is often mixed with opinions. One way they frequently exhibit bias is that they leave out pertinent facts. Some examples of non-mainline American news outlets: MSNBC, Fox News, Gawker, Reddit.

Types of News Sources

Press Services—News outlets (print, broadcast, and online) get a lot of their news from these services, such as Reuters or Associated Press (AP), which make it unnecessary for individual outlets to send their own reporters everywhere. Services are so broadly used that you may have to look at several news outlets to get a different take on an event or situation.

News aggregators—Aggregators don't have reporters of their own but simply collect and transmit the news reported by others. Some sources pull news from a variety of places and provide a single place to search for and view multiple stories. You can browse stories or search for a topic. Aggregators tend to have current, but not archival news. Google news and Yahoo News are examples.

Newspaper sites – Many print newspapers also have their own websites. They vary as to how much news they provide for free. Take a look at these examples.

- [The Lantern](#), Ohio State University's student newspaper
- [The Columbus Dispatch](#)
- [USA Today](#)
- [The Boston Globe](#)
- [The Times of London](#)
- [China Daily, USA edition](#)
- [The New York Times](#)

News Databases – Search current, recent, and historical newspaper content in databases provided free by libraries. OSU Libraries offers 69 news databases to students, staff, and faculty. They include:

- LexisNexis Academic – contains news back to 1980 from newspapers, broadcast transcripts, wire services, blogs, and more.
- Proquest Historical Newspapers – contains older content from several major U.S. newspapers.
- allAfrica – contains more than a million articles from 100 African news sources, 1996-present.
- Lantern Online – contains the archive of all of OSU's student newspaper issues, 1881-1997.

See the complete list of [OSU Libraries' newspaper databases](#).

Activity: Choosing a Newspaper Database

Look at the list of [OSU Libraries' newspaper databases](#) available to OSU users. Which one would be a good place to find an article with an international left perspective on a topic? Our answer is at the end of this section.

Broadcast News Sites – Although broadcast news (from radio and television) is generally consumed in real time, such organizations also offer archives of news stories on their web sites. However, not all of

their articles are provided by their own reporters: some originate from the press services, Reuters and AP. Here are some examples of broadcast news sites:

- [ABC News](#)
- [BBC](#)
- [CNN](#)
- [NPR News](#)
- [NBC Learns \(OSU only\)](#)

Activity: One-Minute World News from the BBC

Visit [BBC's Video area](#) and watch their One-minute World News to get a quick update on the world's major news stories.

Social Media – Most of the news outlets listed above contribute to [Twitter](#) and [Facebook](#). It's customary for highly condensed announcements in this venue to lead you back to the news outlet's website for more information. However, how credible tech companies such as Facebook, Twitter, and Google are with news is in serious doubt now that their lawyers have testified to the U.S. Congress that more than 100 million users may have seen content actually created by Russian operatives on the tech companies' platforms leading up to the 2016 U.S. presidential election. Read more about their testimony at [NPR](#) and [The New York Times](#).

Blogs – Sometimes these are good sources for breaking news, as well as commentary on current events and scholarship. Authors who write more objectively elsewhere can share more insights and opinions, more initial questions and findings about a study before they are ready to release definitive data and conclusions about their research.

Citizen Journalism – A growing number of sites cater to those members of the general public who want to report breaking news and submit their own photos and videos on a wide range of topics. The people who do this are often referred to as citizen journalists.

Examples of such sources include [CNN iReport](#), and [reddit](#). For more details on the history and development of citizen journalism, including addressing some of the pros and cons, read [Your Guide to Citizen Journalism](#).

News Feeds – You can get updates on specific topics or a list of major headlines, regularly sent to you so you don't have to visit sites or hunt for new content on a topic. Look for links that contain headings such as these to sign up for news feeds:

- RSS feeds
- News Feeds
- News Alerts
- Table of Contents Alerts

Movie: What is an RSS Feed?

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=62>

[View video](#)

Activity: RSS Feeds from Reuters

Visit [Reuters News RSS Feeds](#) to see a list of general and very specific topic areas for which you can sign up for alerts. What topic interests you? Consider signing up for one (or more).

Answer to Activity: Choosing a Newspaper Database

If you look at the database descriptions, you will notice that the one for Alternative Press Index matches the need expressed in the question.

DATA AS SOURCES

Researchers find data (quantitative or qualitative information) to describe people, places, events, or situations, back up their claims, prove a hypothesis, or show that one is not correct. In other words, they often use data to help answer their research questions.

Here are some hypotheses that would require data to prove:

- More women than men voted in the last presidential election in a majority of states.
- A certain drug shows promising results in the treatment of pancreatic cancer.
- Listening to certain genres of music lowers blood pressure.
- People of certain religious denominations are more likely to find a specific television program objectionable.
- The average weight of house cats in the United States has increased over the past 30 years.
- The average square footage of supermarkets in the United States has increased in the past 20 years.
- More tomatoes were consumed per person in the United Kingdom in 2015 than in 1962.

Researchers may find data on easily accessed webpages or buried in a database, book, or article that may or may not be on the open web.

(See [Quantitative or Qualitative](#) for some definitions and examples.)

Activity: Example of Data

Check out this [very detailed data](#) about frozen lasagna. Did you ever think this much data was available? Are there elements new to you? How might you use such data?

Movie: Reinterpreting Little Red Riding Hood

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=64>

[View video](#) | [View Text Version](#)

Obtaining Data

There are two ways of obtaining data:

- Obtain data that already exists. That's what this section will cover.
- Collect data yourself by making observations. This can include activities such as conducting surveys or interviews, directly recording measurements in a lab or the field, or even receiving electronic data recorded by computers/machines that gather the data. You will explore these activities in courses you take.

Data can be found all over the place. While you can, of course, use general web search engines to try to find data, there are several excellent tools for finding data on a wide range of topics. (See our [Data Research Guide](#) for information and links to those tools.)

- [Hoover's Online](#) (OSU Only)
- [International Monetary Fund Statistical Databases](#) (OSU Only)
- [Budget of the United States Government](#)
- [U.S. Bureau of Justice Statistics](#)
- [National Center for Education Statistics](#)

Science Data:

- [Census of Agriculture](#) (OSU only)
- [Daily Weather Maps NOAA](#)
- [GeoData.gov](#)
- [World Health Organization Statistical Information System](#)
- [Envirofacts](#)

Finding Data in Articles, Books, Web Pages, and More

A lot of data can be found as part of another source – including web pages, books, and journals. In other words, the data do not stand always alone as a distinct element, but rather are part of a larger work.

You could, of course, contact an author to request additional data. Researchers will discuss their data and its analysis – and sometimes provide some (or occasionally, all) of it. Some may link to a larger data set. A lot of data can be found as part of other a source – including web pages, books, and journals. In other words, the data do not stand alone as a distinct element, but rather are part of a larger work. Researchers will discuss their data and its analysis – and sometimes provide some (or occasionally, all) of it. Some may link to a larger data set. You could, of course, contact an author to request additional data.

Terms like statistics or data may or may not be useful search terms to use. Use these with caution, especially when searching library catalogs. (See information on the [Library Catalog](#). More information on searching is at [Precision Searching](#).)

Once you search for your topic, you may want to try skimming the items for tables, graphs, or charts. These items are summaries or illustrations of data gathered by researchers. However, sometimes data and interpretations are solely in the body of the text.

Depending on your research question, you may need to gather data from multiple resources to get everything you need. You may also find data gathered on the same topic give conflicting results. This is the reality of research. When this happens, you can't just ignore the differences—you'll have to do your best to explain why the differences occurred.

Activity: Where to Find Data

[Open activity in a web browser.](#)

Proper Use of Data

Once you have your data, you can examine them and make an interpretation. Sometimes, you can do so easily. But not always.

What if...

...you had a lot of information? Sometimes data can be very complicated and may include thousands (or millions...or billions...or more!) of data points. Suppose you only have a date and the high temperature for Columbus – but you have this for 20 years' worth of days. Do you want to calculate the average highs for each month based upon 20 years' worth of data by hand or even with a calculator?

...you want to be able to prove a relationship? Perhaps your theory is that social sciences students do better in a certain class than arts/humanities or science students. You may have a huge spreadsheet of data from 20 years' worth of this course's sections and would need to use statistical methods to see if a relationship between major and course grade exist.

You may find yourself using special software, such as Excel, SAS, and SPSS, in such situations.

Many people may have a tendency to look for data to prove their hypothesis or idea. However, you may find that the opposite happens: the data may actually disprove your hypothesis. You should never try to manipulate data so that it gives credence to your desired outcome. While it may not be the answer you wanted to find, it is the answer that exists. You may, of course, look for other sources of data – perhaps there are multiple sources of data for the same topic with differing results. Inconclusive or conflicting findings do happen and can be the answer (even if it's not the one you wanted!).

And, like with any other information resource, you should cite any data you use from a resource. If you found the data in a book, on a web page, or in an article, cite the data like you would those formats. If you used a database or downloaded a file, the citation style's guide/manual should have directions for how to properly cite the data. (See [How to Cite Sources.](#))

Examples: Citing Data

Data from a research database:

- APA: Department of Agriculture (USDA) (2008). "Crops Harvested", Crop Production [data file]. Data Planet, (09/15/2009).
- MLA: "Crops Harvested", Department of Agriculture (USDA) [data file] (2008). Data Planet, (09/15/2009).

Data from a file found on the open Web:

- APA: Center for Health Statistics, Washington State Department of Health. (2012, November). Mortality Table D1. Age-Adjusted Rates for Leading Causes of Cancer for Residents, 2002-2011. [Microsoft Excel file]. Washington State Department of Health. Retrieved from <http://www.doh.wa.gov/>
- MLA: Center for Health Statistics, Washington State Department of Health. Mortality Table D1. Age-Adjusted Rates for Leading Causes of Cancer for Residents, 2002-2011. Washington

State Department of Health, Nov. 2012. Microsoft Excel file. Retrieved from
<http://www.doh.wa.gov/>

4-SOURCES AND INFORMATION NEEDS

SOURCES AND INFORMATION NEEDS



It's easier to find appropriate sources when you start with a plan.

This section and the section on [Types of Sources](#) work together. That's because knowing the kinds of information in each category of sources will help you choose the right kind of information to meet each of your information needs. **And some of those needs are very particular.**

Information needs are why you need sources. Meeting those needs is what you're going to do with sources as you complete your research project.

Here are those needs:

- To learn more background information.
- To answer your research question(s).
- To convince your audience that your answer is correct or, at least, the most reasonable answer.
- To describe the situation surrounding your research question for your audience and explain why it's important.

- To report what others have said about your question, including any different answers to your research question.

Tip:

For another way to think about the work your sources do, see [Roles of Research Sources](#).

The verbs in the list of information needs above tell you exactly how you'll use sources to carry out your research and create your final product: to learn, answer, convince, describe, and report. But you won't be doing any of that alone.

Your sources will give you information with which to reason. They'll also give you direct quotes and information to summarize and paraphrase as you create your final product. In other words, your sources will support you every step of the way during your research project.

Needs and Final Products

Background information may seldom appear directly in any final product. But meeting each of the other information needs will result in written sections of a term paper. For other final products, you'll have the same needs and will use sources to meet them, but not all needs will result in a section of your final product.

Example: Final Products & Information Needs

On a poster about your own original research, you aren't likely to have room to describe the situation surrounding your research question and why the question is important beyond a sentence or so. That same lack of space may mean you do not report what others have said about your question. But that doesn't mean you didn't meet those needs and others as you carried out your research—unlike a term paper or journal article, the poster format in which you reported it just had more limited space.

For instance, in order to justify doing the research to yourself and your professor, you probably started by meeting the information need to describe the situation and why it is important. Your instructor may have you turn in that justification. You also had to do that in order to make your answer to your research question more believable. But that doesn't mean you had room on your poster to say you met those needs.

Activity: Sources and Information Needs

[Open activity in a web browser.](#)

SOURCES TO MEET NEEDS

Because there are several categories of sources (see [Types of Sources](#)), the options you have to meet your information needs can seem complex.

Our best advice is to pay attention to when only primary and secondary sources are required to meet a need and to when only professional and scholarly sources will work. If your research project is in the arts, also pay attention to when you must use popular sources, such as when you need/use primary sources.

These descriptions and summaries of when to use what kind of source should help.

To Learn Background Information

When you first get a research assignment and perhaps for a considerable time afterward, you will almost always have to learn some background information as you develop your research question and explore how to answer it.

Sources from any category and from any subgroup within a category can meet students' need to learn background information and understand a variety of perspectives—except journal articles, which are usually too specific to be background. From easy-to-understand to more complex sources, read and/or view those that advance your knowledge and understanding.

For instance, especially while you are getting started, secondary sources that synthesize an event or work of art and tertiary sources such as guidebooks can be a big help. Wikipedia is a good tertiary source of background information.

Sources you use for background information don't have to be sources that you cite in your final report, although some may be.



Get a good look at your topic through background reading.

Resources to Learn Background Information

- **Quantitative or Qualitative:** Either—whatever advances your knowledge
- **Fact or Opinion:** Any—whatever advances your knowledge
- **Scholarly, Professional or Popular:** Any—whatever advances your knowledge
- **Primary, Secondary or Tertiary:** Any—whatever advances your knowledge
- **Publication Format:** Any—whatever advances your knowledge

One important reason for finding background information is to learn the language that professionals

and scholars have used when writing about your research question. (It will help you later, particularly when you're searching for sources to answer your research question.)

To identify that language, you can always type the word glossary and then the discipline for which you're doing your assignment in the search engine search box.

Here are two examples to try:

- [Glossary neuroscience](#)
- [Glossary "social media marketing"](#)

(Putting a phrase in quotes in most search boxes insures that the phrase will be searched rather than individual words.)

To Answer Your Research Question

You have to be much more picky with sources to meet this need because only certain choices can do the job. Whether you can use quantitative or qualitative data depends on what your research question itself calls for.

Only primary and secondary sources (from the category called publication mode) can be used to answer your research question and, in addition, those need to be professional and/or scholarly sources for most disciplines (humanities, social sciences, and sciences). But the arts often accept popular sources as primary or secondary sources to answer research questions. Also, the author's purpose for most disciplines should be to educate and inform or, for the arts, to entertain and perhaps even to sell. (As you may remember, primary sources are those created at the same time as an event you are researching or that offer something original, such as an original performance or a journal article reporting original research. Secondary sources analyze or otherwise react to secondary sources. Because of the [information cycle](#), the latest secondary sources are often the best because their creators' have had time for better analysis and more information to incorporate.)



Your research question may call for qualitative or quantitative sources.

Example: Quantitative or Qualitative Data

Suppose your research question is "How did the previous king of Saudi Arabia (King Abdullah) work to modernize his country?"

That question may lend itself to qualitative descriptive judgments—about what are considered the components of modernization, including, for instance, what were his thoughts about the place of women in society.

But it may also be helped by some quantitative data, such as those that would let you compare the numbers of women attending higher education when Abdullah became king and those attending at the time of his death and whether manufacturing increased while he reigned.

So looking for sources that provide both quantitative and qualitative information (not necessarily in the same resource) is usually a good idea.

If it is not clear to you from the formats of sources you are assigned to read for your course, ask your professor which formats are acceptable to your discipline for answering your research question.

Resources to Answer Your Research Question

- **Quantitative or Qualitative:** Will be determined by the question itself
- **Fact or Opinion:** Professional and scholarly for most disciplines; the arts often use popular, as well
- **Scholarly, Professional or Popular:** Professional and scholarly for most disciplines; the arts often use popular, as well
- **Primary, Secondary or Tertiary:** Primary and secondary
- **Publication Format:** Those acceptable to your discipline

To Convince Your Audience

Convincing your audience is similar to convincing yourself and takes the same kinds of sources—as long as your audience is made up of people like you and your professor, which is often true in academic writing. That means using many of those sources you used to answer your research question.

When your audience isn't very much like you and your professor, you can adjust your choice of sources to meet this need. Perhaps you will include more that are secondary sources rather than primary, some that are popular or professional rather than scholarly, and some whose author intent may not be to educate and inform.



Sources that meet the approval of your audience will be more convincing.

Resources to Convince Your Audience

- **Quantitative or Qualitative Data:** Same as what you used to answer your research question if your audience is like you and your professor. (If you have a different audience, use what is convincing to them.)
- **Fact or Opinion:** Those with the purpose(s) you used to answer your research question if your audience is like you and your professor. (If you have a different audience, you may be better off including some sources intended to entertain or sell.)
- **Scholarly, Professional or Popular:** Those with the same expertise level as you used to answer the question if your audience is like you and your professor. (If you have a different audience, you may be better off including some popular.)
- **Publication Mode:** Primary and secondary if your audience is like you and your professor. If you have a different audience, you may be better off including more secondary sources than primary.
- **Publication Format:** Those acceptable your discipline, if your audience is like you and your professor.

To Describe the Situation

Choosing what kinds of sources you'll need to meet this need is pretty simple—you should almost always use what's going to be clear and compelling to your audience. Nonetheless, sources intended to educate and inform may play an out-sized role here.

But even then, they don't have to educate and inform formally, which opens the door to using sources such as fiction or the other arts and formats that you might not use with some other information needs.



Resources to Describe the Situation

Use sources to frame the situation.

- **Quantitative or Qualitative:** Whatever you think will make the description most clear and compelling and your question important to your audience
- **Fact or Opinion:** Often to educate and inform, but sources don't have to do that formally here so they can also be to entertain or sell
- **Scholarly, Professional or Popular:** Whatever you think will make the description most clear and compelling and your question important to your audience
- **Primary, Secondary or Tertiary:** Whatever you think will make the description most clear and compelling and your question important to your audience
- **Publication Format:** Whatever you think will make the description most clear and compelling and your question important to your audience

To Report What Others Have Said

The choices here about kinds of sources are easy: just use the same or similar sources that you used to answer your research question that you also think will be the most convincing to your audience.



Resources to Report What Others Have Said

- **Quantitative or Qualitative:** Those sources that you used to answer your research question that you think will be most convincing to your audience
- **Fact or Opinion:** Those sources that you used to answer your research question that you think will be most convincing to your audience
- **Scholarly, Professional or Popular:** Those sources that you used to answer your research question that you think will be most convincing to your audience

- **Primary, Secondary or Tertiary:** Those sources that you used to answer your research question that you think will be most convincing to your audience
- **Publication Format:** Those sources that you used to answer your research question that you think will be most convincing to your audience

Activity: Meeting Your Information Needs

[Open activity in a web browser.](#)

YOUR SOURCE PLAN

Okay, so once you know what kinds of sources you need to meet your information needs, where should you look for them? Once more, thinking about categories can help.

Where sources are located is generally organized by audience expertise level—by whether they are popular, professional, or scholarly sources. Popular and professional are often grouped together. But scholarly sources tend to hang out by themselves. (That’s why searching Google Scholar locates more of them than just plain old Google, and an academic library has more scholarly sources than a public library.)

Before you start looking, try the Plan for Sources table below along with the suggestions made in this section to think through what sources you’ll need for your own research project. Having your Plan for Sources always at your side while you search for sources will guide where you look and what you’re willing to accept. It will help you keep track of whether you have found the right resources.

PLAN FOR SOURCES				
Course:		Due Date:	Type of Final Product:	
Research Question:				
Information Needs		Kinds of Sources (Popular, Professional, or Scholarly) That Should Meet Each Need	Publication Formats Likely to be Helpful in Meeting Each Need	Where to Look
To learn more background information				
To answer your research question and convince your audience				
To report what others have said				
To describe the situation and why it's important				

Thinking through the types of sources you need to meet your information needs helps you target your search. You can download the Plan for Sources table at <http://go.osu.edu/planforsources>.

You can download the table at <http://go.osu.edu/planforsources>, then fill it out with the help of our [Source Locator](#). Using this table doesn't mean you can't change your mind if you later find another kind of resource that looks too good to pass up. But making a plan first will insure that you don't just grab any resource you come across. The few minutes you take to complete the table will save you time later. And it's nice to have a plan all in one place that you can put into action!

Example: Sample “Plan for Sources” Table

PLAN FOR SOURCES				
Course: ARTS & SCIENCES 3200		Due Date: 2/15/16	Type of Final Product: term paper	
Research Question: In what ways has the checklist movement affected surgery patient outcomes in U.S. hospitals?				
Information Needs		Kinds of Sources (Popular, Professional, or Scholarly) That Should Meet Each Need	Publication Formats Likely to be Helpful in Meeting Each Need	Where to Look
To learn more background information	✓	Popular Professional	Any, including magazine articles, professional blogs, and association websites and publications	Google and Bing
To answer your research question and convince your audience	✓	Professional Scholarly	Books Research journal articles Conference papers	Library catalog Library databases Google Scholar
To report what others have said	✓	Professional Scholarly	Any, including professional blogs and association websites and publications Research journal articles Conference papers	Google and Bing Library databases Google Scholar
To describe the situation and why it's important	✓	Popular Professional	Any, including magazine articles, professional blogs, and association websites and publications	Google and Bing

Completing the table puts all your planning in one place.

Even if you are not using our planning table, [Source Locator](#) can help you see where sources of every audience expertise level (popular, professional, and scholarly) are located. Check it out.

5-PRECISION SEARCHING

WHY PRECISION SEARCHING?



Precise searches turn up more appropriate sources.

Effective searching takes precision. This section shows you how to perform several steps to make your searching more precise—you'll turn up more sources that are useful to you and perhaps, sources that may be even crucial to your research question.

You've probably been searching in a more casual way for years and may wonder: Is going to the trouble of precision searching actually worth it?

Yes, definitely, for searches that are important to you! You're in competition with many people who are working to be as skilled as they can be. So you should use of these steps or course assignments and for information tasks you do on the job. With other tasks and searches, precision searching may be less important.



Search Strategy

This information on precision searching is based on how search tools such as Google and specialized databases operate. If you've been more casual in your searching practices, some of these steps may be new to you.

Starting with a research question helps you figure out precisely what you're looking for. Next, you'll need the most effective set of search terms – starting from main concepts and then identifying related terms. Those search terms need to be arranged in the most effective way as search statements, which you actually type into a search box.

An important thing to remember is that searching is an iterative process: we try search statements, take a look at what we found and, if the results weren't good enough, edit our search statements and search again—often multiple times. Most of the time, the first statements we try are not the best, even though Google or another search tool we're using may give us many results.

It pays to search further for the sources that will help you the most. Be picky.

Here are the steps for an effective search.



The steps in a precise search

MAIN CONCEPTS

Identify the main concepts in your research question by selecting nouns important to the meaning of your question. Leave out words that don't help the search, such as adjectives, adverbs, prepositions and, usually, verbs. Nouns that you would use to tag your research question so you could find it later are likely to be its main concepts.

Finding the main concepts in a research question is a lot like finding the main idea in an essay or story. Often the main idea is in the first paragraph, but not always. Sometimes it's in a later paragraph or even in the conclusion. The same is true with research questions—the main concepts can be at the beginning, middle, or end. Stick to the nouns and only what's necessary, not already implied. Don't read in concepts that are not really there. Be alert to words that may have connotations other than the concept you are interested in. For instance, if you identify depression as a main idea, beware that the search engine won't automatically know whether you mean depression as a psychological state or as a condition of the economy or as a weather characteristic.

Example: How are birds affected by wind turbines?

The main concepts are birds and wind turbines. Avoid terms like affect (except the noun) and effect as search terms, even when you're looking for studies that report effects or effectiveness.

Example: What lesson plans are available for teaching fractions?

The main concepts are lesson plans and fractions. Stick to what's necessary. For instance, don't include: children—nothing in the research question suggests the lesson plans are for children; teaching—teaching isn't necessary because lesson plans imply teaching; available—available is not necessary.

Sometimes the questions themselves can seem complicated. Make sure you've stated the question as precisely as possible (as you learned in [Research Questions](#)). Then apply our advice for identifying main concepts as usual.

Activity: Main Concepts

[Open activity in a web browser.](#)

Activity: More Main Concepts

[Open activity in a web browser.](#)

EXAMPLE: Does the use of mobile technologies by teachers and students in the classroom distract or enhance the educational experience?

Acceptable main concepts are teaching methods and mobile technology. Another possibility is mobile technologies and education.

Watch out for overly broad terms. For example, don't include:

- Educational experience (it misses mobile technology).
- Classroom distractions (too broad because there are distractions that have nothing to do with technology).
- Technology (too broad because the question is focused on mobile technology).

RELATED AND ALTERNATIVE TERMS

For each main concept, list alternative terms, including synonyms and singular and plural forms of the words.

Sometimes synonyms, plurals, and singulars aren't enough. So also consider associations with other words and concepts. For instance, it might help, when looking for information on the common cold, to include the term virus—because a type of virus causes the common cold.

Check to make sure that your terms are not too broad or too narrow for what you want. Figuring out what's too broad or too narrow takes practice and may differ a bit with each search.

Tip: Try a Thesaurus

Have you considered using a thesaurus, such as [thesaurus.com](https://www.thesaurus.com)? Or [adding a thesaurus to your browser search bar](#)?

Activity: Finding Synonyms

When figuring out search terms, you can try your search terms in Visuwords <visuwords.com>, an online graphical dictionary, to see the connections visually in a diagram reminiscent of a neural net. It can help you see connections between terms that are not easy to think of.

Activity: Alternate Terms

[Open activity in a web browser.](#)

Subject Headings Instead of Keywords

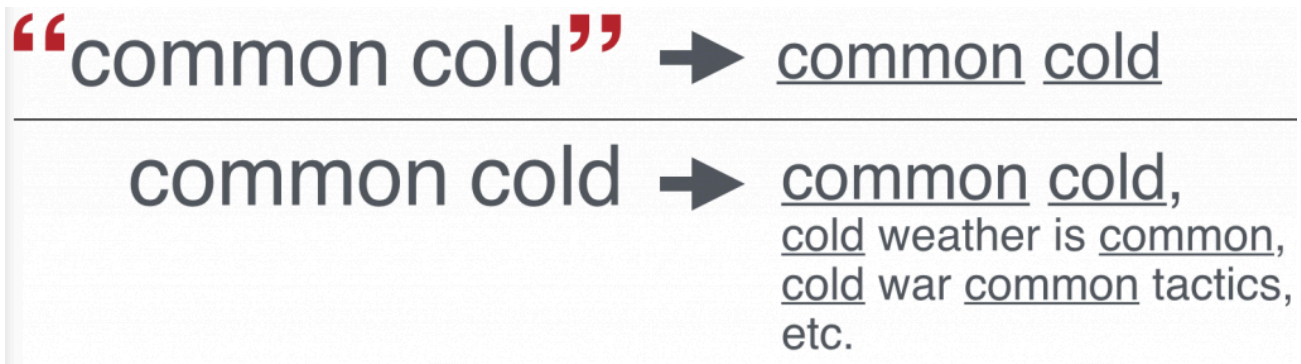
All the searches we have talked about so far have been keyword searches, usually used in search engines. But sometimes it pays to use tools—such as library catalogs and journal article databases—that have subject headings that you can search. Subject headings are standardized terms that are assigned by trained experts. (Some such tools also allow keyword searching.) See the section on [Specialized Databases](#) for more detail about searching subject headings.

SEARCH STATEMENTS

At this point in your search process, you are moving from merely identifying main concepts and similar search *terms* to developing more complicated search *statements* that can do more precise searching.

Use Quotation Marks for Phrases

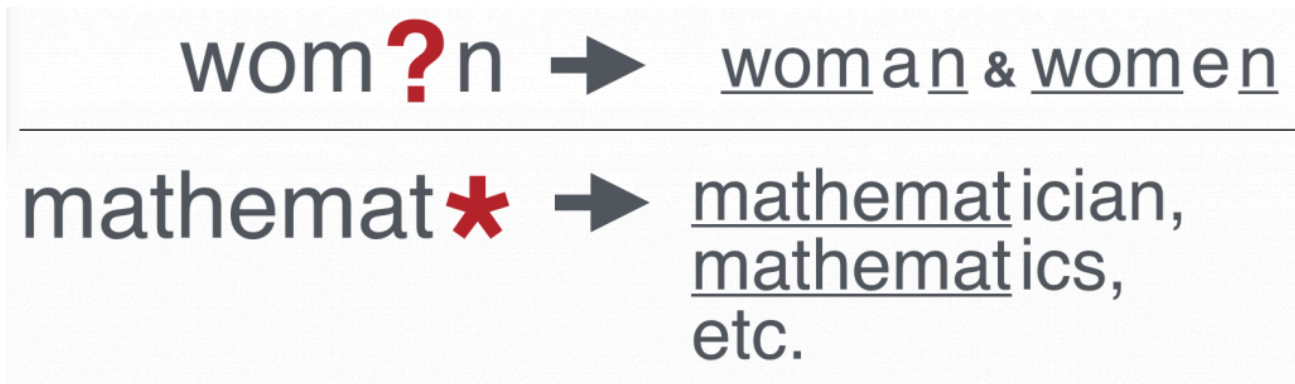
Put quotation marks around any phrases among your terms so that the phrase is what's searched for, rather than the separate words. "Common cold" instead of common cold is a good example. Without those quotation marks, just think how many sources Google or other search tools would waste their/your time on things that have nothing to do with our sniffles.



Putting a phrase in quotes returns results containing that phrase, and not the results for the individual words.

Use Wildcard and Truncation Symbols to Broaden

Consider whether using wild card or truncating symbols would help find variations of a word. For instance, the wildcard symbol in wom?n finds both woman and women, and the truncating symbol in mathematic* finds mathematics, mathematically, mathematician, etc.



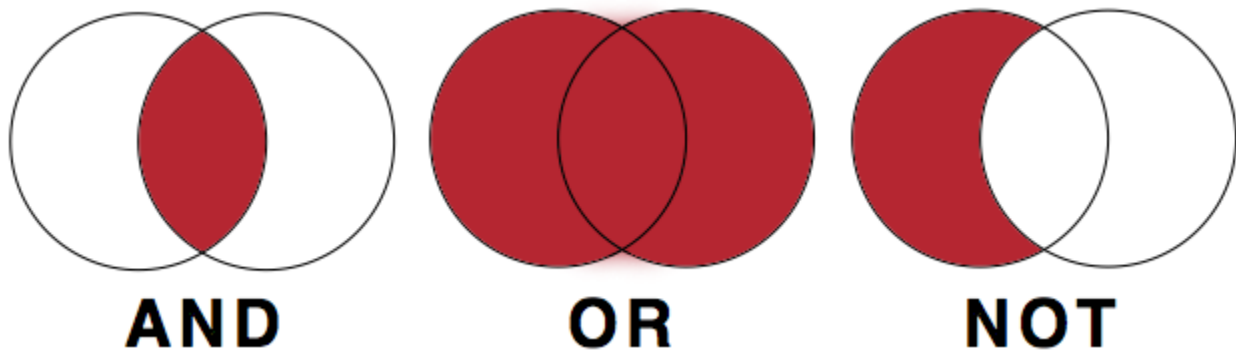
Using wildcard characters allows you to find variations of a word.

Activity: Wildcards and Truncation

[Open activity in a web browser.](#)

Consider AND, OR, NOT

You can often do more precise searching by combining search terms by using the words AND, OR, and NOT. These are known as Boolean Operators. Generally, using these operators narrows your search, making it more precise.



The Boolean operators AND, OR, and NOT exclude or include subsets of sources.

AND – If the main idea contains two or more ideas, you'll want to use AND to combine those terms in your search statement. To look for information about spiders as signs of climate change you'll want to have both terms in the search and perform an AND search. That's what automatically happens in search engines such as Google and Bing unless you tell them to do something different by using OR or NOT.

OR – If the main idea has several synonyms, use OR to combine them. Most search tools search for all terms (AND) by default, so you need to use the term OR between terms to let it know you want to find any of the terms not documents with all the terms. For instance, in the previous example of Latino small business growth, we would want to also use the term Hispanic.

NOT – If the main idea has a common use you want to exclude, use NOT to exclude that word. For example, if we were looking for information about illegal drug use we would want to exclude prescription drugs from the search results. This is commonly done with NOT or the use of the Minus (-) sign. In Google, to exclude a word use word with no space between the - and the word you want to

exclude. If you put a space in there, Google will not exclude the word.(When using some search tools, you have to use AND NOT before the word to exclude it.)

Using Parentheses with Multiple Operators

When a search requires multiple Boolean operators (AND, OR, NOT, or their symbols), you must use parentheses to group the appropriate terms and quotation marks with each Boolean operator. The resulting statements connect terms, remove terms, and organize search terms in ways that result in complex and precise searching.

The use of parentheses may remind you of the mathematical statements written in math courses. The reason parentheses are necessary in searching is that search tools, including Google, generally perform their operations from the left to right of a search statement. If you are using multiple Boolean operators, then the way to make sure that the search is done as a whole statement requires that you use parentheses to combine the sets in your statement.

Never use parentheses unless you are using multiple Boolean operators.

(cat or dog) and (“white house” and president)

Parenthesis are used with Boolean operators to combine terms for complex searches.

Being skillful at this task of envisioning the effects Boolean operators have on a search can help you troubleshoot your own arrangements when they aren’t turning up what you expected.

Example: “United States” AND (immigration or emigration)

Can you tell that the searcher wants to find information about the United States’ immigration or emigration?

The searcher will find more with this arrangement than would turn up if the statement had been “United States” immigration emigration. That’s because the latter arrangement without parentheses would find only information that was about both United States immigration and emigration, instead of either.

Example: (cats OR dogs) AND (treatment OR therapy)

Can you tell that the searcher wants to find information about either treatment or therapy for either cats or dogs?

That’s a different search from what the searcher would have gotten if this statement had been used: cats dogs treatment therapy. Anything found with the latter statement without parentheses would have had to be about both— not just either—therapy and treatment for both—not just either—cats and dogs. So the latter statement would have turned up fewer pieces of information.

Activity: Search Analysis

[Open activity in a web browser.](#)

Practice with Search

Take some time to practice searching precisely – start by identifying main concepts, then listing related and alternative terms (with the help of wildcard and truncation symbols), and finally constructing search statements.

Activity: Search Practice

This activity focused on the research question “How does a person’s diet affect the risk for getting cancer?” Work through the three activities below.

Search Terms – [Open activity in a web browser.](#)

Truncation – [Open activity in a web browser.](#)

Search Statements – [Open activity in a web browser.](#)

Activity: More Search Practice

This activity focuses on the research question “What is the effect of gamma radiation on crops?” Work through the three activities below.

More Search Terms – [Open activity in a web browser.](#)

More Truncation – [Open activity in a web browser.](#)

More Search Statements – [Open activity in a web browser.](#)

6-SEARCH TOOLS

LIBRARY CATALOG

The Ohio State University library catalog is searchable online and contains records for all the items owned or licensed by OSU Libraries. It also includes a circulation system that is used to check out materials. Students can use the system to have books and other materials quickly sent to their residence hall or for pick up at a library on the Columbus campus or at any of the regional campus libraries. Items in the catalog include books, journals (but not individual journal documents), documents, maps, movies, and recordings.

When to Use It

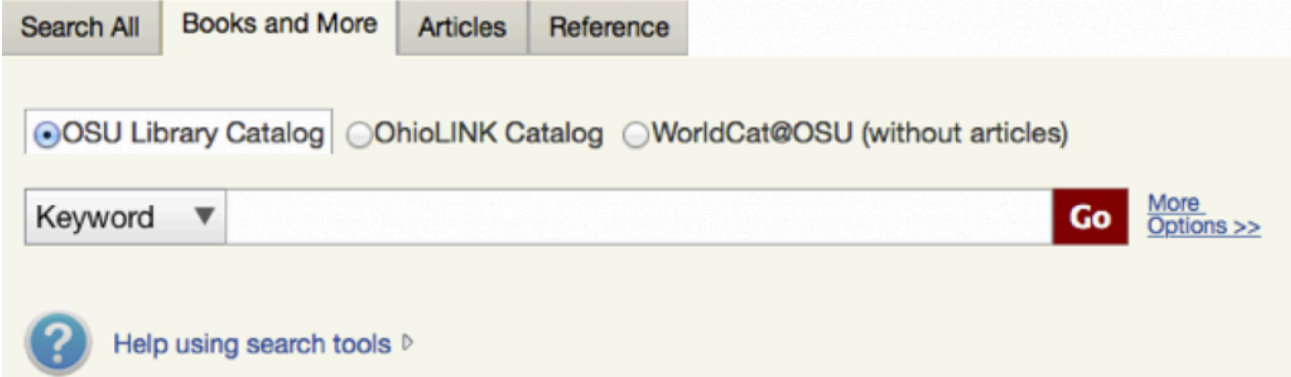
Use the library catalog to search for items that you can access because you are affiliated with Ohio State, to locate where those materials are stored, and to request them.

Note that OSU's library catalog:

- Does not contain the full-text of any materials. However, some items may include a table of contents and a link to full-text digital content.
 - Does not contain specific articles. The catalog can only tell you whether a periodical title is available.
-

How to Use It

To access the catalog, choose the Books and More tab on the OSU Libraries' main page at <http://library.osu.edu>. From there, you can do a search or click on More Options to get access to other search options, including an advanced search.



The screenshot shows the top navigation bar with four tabs: "Search All", "Books and More", "Articles", and "Reference". Below the tabs is a search area with three radio buttons: "OSU Library Catalog" (selected), "OhioLINK Catalog", and "WorldCat@OSU (without articles)". Below the radio buttons is a search input field with a "Keyword" label and a dropdown arrow. To the right of the input field is a red "Go" button and a link "More Options >>". At the bottom left is a blue question mark icon and the text "Help using search tools ▸".

Searching Ohio State's catalog from library.osu.edu

Search Types

The catalog allows searching by author, title, journal title, subject, and keyword as well as specialty numbers such as the Library of Congress call number and ISBN (International Standard Book Number). There is also an option for advanced search.

Additional tips:

- Keyword searches are the broadest search, as they search all information in an item record. (The search tips in [Precision Searching](#), are based on using keywords.)
- Subjects are a very specific set of terms that are helpful for precision searches. Often, the easiest way to find subject terms is to do a keyword search first and then look at the subject terms for those that are good matches for your topic. There is more about subject heading searching in [Specialized Databases](#) later in this section.
- The Advanced Search screen allows a few additional search capabilities, such as multiple search fields to narrow the scope of a search term. You can also limit by year range, language, location, or format.

WORLDCAT@OSU

WorldCat@OSU searches the holdings of libraries from all over the world (including Ohio State University Libraries and OhioLINK libraries), as well as content from thousands of journals and millions of electronic books and web-accessible documents.

When to Use It

WorldCat@OSU is good for quick searches on a topic, as a starting point, and for interdisciplinary topics. However, despite its size, it is not all-inclusive. It does not search all journals and databases, and full-text searching is limited.

How to Use It

To access WorldCat@OSU, choose the Search All tab on the OSU Libraries' main page at <http://library.osu.edu>. (Off-campus users will be asked to sign in with an OSU username and password or proceed as a guest for fewer options.)



Searching WorldCat@OSU from library.osu.edu

Narrowing Searches

- To specific databases – From the Search All tab, click the Advanced Search link to get access to other search options, including selecting specific databases.
- To articles – Under the Articles tab on the OSU Libraries home page, you will be using WorldCat@OSU to search only for articles.

GOOGLE SCHOLAR

Google Scholar is a tool for finding books and journal articles that you might normally get from a library. Where possible, it provides links to online versions and to library copies to help you locate an item.

When to Use It

Use Google Scholar to find scholarly articles and books, verify citations, and explore related resources. When books are available through Google Books, some of their content may be available online.

How to Use It

Go to Google Scholar (<http://scholar.google.com>).

Movie: Using Google Scholar

Watch this tutorial on the basics of Google Scholar use.

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=103>

[View video](#)

Note: Setting your school in Scholar Preferences will help you make direct connections to online sources provided by your library. If you want to locate sources in many different libraries, add WorldCat in addition to your library. (Remember to save your preferences.)

In your search results, you can connect to an online version if there is a linked option following the item's title. (If you've added Ohio State under preferences, a Find It link is shown to provide a link to full-text or to help you request the item if it's not available online. If you've added WorldCat to you preferences, the Library Search link displays the WorldCat record, which shows all of the libraries that own the item. If there are multiple references to the same item, Google Scholar groups them. You can click the versions link following a title to see a list of all versions.)

Additional Tips

- The Any Time link in the left column of results allows you to limit your search results by date.
- Find Advanced Scholar Search by clicking on the three horizontal lines icon. Advance Scholar search provides additional search fields such as author, publication, and date, as well as phrase matching and word exclusion.

SPECIALIZED DATABASES

A specialized database—often called a research or library database—allows targeted searching on one or more specific subject areas (i.e., engineering, medicine, Latin American history, etc.), for a specific format (i.e., books, articles, conference proceedings, video, images), or for a specific date range during which the information was published. Those of what specialized databases contain can not be found by Google or Bing.

There are several types of specialized databases, including:

- Bibliographic – details about published works
- Full-text – details plus the complete text of the items
- Multimedia – various types of media, such as images, audio clips, or video excerpts
- Directory – brief, factual information
- Numeric – data sources
- Product – model numbers, descriptions, etc.
- Mixed – a combination of other types, such as multimedia and full-text

Activity: Database Types

[Open activity in a web browser.](#)

When to Use Specialized Databases

Search specialized databases to uncover scholarly information that is not available through a regular web search. Specialized databases are especially helpful if you require a specific format or up-to-date, scholarly information on a specific topic.

Many databases are available both in a free version and in a subscription version. Your affiliation with a subscribing library grants you access to member-based services at no cost to you. For example, using PubMed via OSU Libraries enables a Find It link to help you request an item.





Tip: Free vs. Subscription?

In some cases, the data available in free and subscription versions are the same, but the subscription version provides some sort of added value or enhancement for searching or viewing items.

Database Scope

Information about the specific subject range, format, or date range a particular specialized database covers is called its scope. A specialized database may be narrow or broad in scope, depending on whether it, for instance, contains materials on one or many subject areas.

If you are using a database licensed by OSU Libraries and have clicked the title in the list of databases, you will see scope information at the bottom of the same page that says “Click on the following to go to the resource.”

Click on the following to go to the resource:	
IEEE Xplore [Full Text] 	
Resource Name	IEEE Xplore [Full Text]
Alternate Resource Name	IEEE Electronic Journals
Authorized locations	All OSU
Authorized users	Faculty, staff, students
Terms of use	Licensed for OSU academic use only; any commercial use prohibited.
	Systematic copying expressly prohibited. Database content may not be distributed to non-OSU users.
Concurrent Users	15
Coverage	1988 to present, plus selected pre-1988 content  Years Covered
Description  Description	Provides full text access to IEEE & IEE journal articles and conference papers from 1988 to present; current IEEE standards; selected IEEE pre-1988 content; and IEEE periodicals cover-to-cover beginning in 2004. Off campus sign in
Subject	Computer Science  Subject Areas Engineering Standards (Technical) Technology

This example shows the scope page for an OSU-licensed database.

[View the live example.](#)

Once you are aware of a database's scope, you'll be able to decide whether the database is likely to have what you want (for instance, journal articles as opposed to conference proceedings). Reading about the scope can save you time you would have otherwise wasted searching in databases that do not contain what you need.

Activity: Determining Subject Scope

[Open activity in a web browser.](#)

Activity: Years of Coverage

Instructions: In addition to subject scope, database descriptions should include years of coverage. Visit Ohio State's [Research Databases List](#) to search for the databases listed below. Which database contains the oldest information? Which covers the fewest years?

- Evidence Based Medicine Reviews
- MathSciNet
- GeoRef

Answer to Activity: Years of Coverage

The answer to the “Years of Coverage” Activity above is:

- The database containing the oldest material is [GeoRef](#), which goes back to 1785.
- The database covering the fewest years is [Evidence Based Medicine Reviews](#), which goes back to 1991.

How to Use Them

Use of each database varies somewhat.

See [Ohio State's research database list](#).

Example: Academic Search Complete

[Academic Search Complete](#) (OSU only) is a general article database available through most academic and large public libraries that is often recommended for undergraduate research projects.

Movie: Academic Search Complete Database in 3 Minutes

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=106>

[View video](#)**Keyword Searching**

Although keyword search principles apply (as described in Precision Searching), you may want to use fewer search terms since the optimal number of terms is related to database size. Google and Bing work best with several terms since they index billions of web pages and additional terms help narrow the results. Each scholarly database indexes a fraction of that number, so you are less likely to be overwhelmed by results even with one or two keywords than you would be with a search engine.

Phrase searching (putting multiple words in quotes so Google or Bing will know to search them as a phrase) is also less helpful in specialized databases because they are smaller and more focused. Databases

are better searched by beginning with only a few general search terms, reviewing your results and, if necessary, limiting them in some logical way. (See Limiting Your Search below.)

Activity: Compare Them!

Instructions:

Compare a search for items containing both phrases “United States” and “female serial killers” in the article database [Academic Search Complete](#) (OSU only) and in the web search engine [Bing](#). (Make sure you include the quotation marks as they will be searched as phrases.) Notice how searching too narrowly (searching for phrases) affects results in the specialized database. How could you revise the specialized database search to get more results?

Limiting Your Search

Many databases allow you to choose which areas (also called fields) of items to search for your search term(s), based on what you think will turn up documents that are most helpful.

For instance, you may think the items most likely help to you are those whose titles contain your search term(s). In that case, your search would not show you any records for items whose titles do not have your term(s). Or maybe you would want to see only records for items whose abstracts contain the term(s).

When this feature is available, directing your search to particular parts of items, you are said to be able to “limit” your search. You are limiting your search to only item parts that you think will have the biggest pay-off at distinguishing helpful items from unhelpful items.

Searching fields such as title, abstracts, and subject classification often gives helpful items.

Tip: Full-Text Searches

Some databases allow for full-text searching, but this option includes results where a search term appears only once in dozens or more pages. Searching fields such as title, abstracts, and subject classification will often give more relevant items than full-text searching.

Subject Heading Searching

One precision searching technique may be helpful in databases that allow it, and that’s subject heading searching. Subject heading searching can be much more precise than keyword searching, as you are sure to retrieve only your intended concept.

Subject searching is helpful in situations such as:

- There are multiple terms for the same topic you’re interested in (example: cats and felines).
- There are multiple meanings for the same word (example: cookie the food and cookie the computer term).
- There are terms used by professionals and terms used by the general public, including slang or shortened terms (example: flu and influenza).

Here’s how it works:

Database creators work with a defined list of subject headings, which is sometimes called a controlled vocabulary. That means the creators have defined which subject terms are acceptable and assigned only those words to the items it contains. The resulting list of terms is often referred to as a thesaurus. When

done thoroughly, a thesaurus will not only list acceptable subject headings, but will also indicate related terms, broader terms and narrower terms for a concept.

Tip: Finding Useful Subject Headings

Try this strategy to find useful subject headings. Remember it by thinking of the letters KISS:

- **K**eyword-search your topic.
- **I**dentify a relevant item from the results.
- **S**elect subject terms relevant to your topic from that item's subject heading.
- **S**earch using these subject terms. (Some resources will allow you to simply click on those subject terms to perform a search. Others may require you to copy/paste a subject term[s] into a search and choose a subject field.)

Activity: Searching Specialized Databases

[Open activity in a web browser.](#)

Records and Fields

The information researchers usually see first after searching a database is the “records” for items contained in the database that also match what was asked for by the search.

Each record describes an item that can be retrieved and gives you enough information so that, hopefully, you can decide whether it should meet your information need. The descriptions are in categories that provide different types of information about the item. These categories are called “fields.” Some fields may be empty of information for some items, and the fields that are available depend on the type of database.

Example: Database Fields

A **bibliographic database** describes items such as articles, books, conference papers, etc. Common fields found in bibliographic database records are:

- Author.
- Title (of book, article, etc.).
- Source title (journal title, conference name, etc.).
- Date.
- Volume/issue.
- Pages.
- Abstract.
- Descriptive or subject terms.

In contrast, a **product database** record might contain the following fields:

- Product Name.
- Product Code number.
- Color.
- Price.

- Amount in Stock.

WEB SEARCH ENGINES

Web search engines use special software programs (called robots, spiders, or crawlers) to find Web pages and list (or index) all words within each one to make searching large quantities of page faster. Indexes capture the largest amount of information on the Web, but no index lists everything on the Internet.

Commonly used search engines include Google (<https://www.google.com>) and Bing (<http://www.bing.com>).

In addition to search engines, there are also:

- Specialized web search engines – A tool that has a specialty, usually either a subject or format focus. It ignores the rest of the information on the web. Examples include science.gov (<http://www.science.gov/>) and TinEye Reverse Image Search (<https://www.tineye.com>).
 - Metasearch engines – Tools that search multiple web search engines and gives you results from all of them. Some of these return the best results from the search engines they search. Examples include Dogpile (<http://www.dogpile.com>) and WebCrawler (<https://www.webcrawler.com>).
 - Web directories – Tools created by editors or trained researchers who categorize or classify web sites by subject. Directories are more selective than search engines. An examples includes Ipl2 (<http://www.ipl.org>).
-

When to Use Them

Web Search Engines and related web search tools are helpful for locating background information, news (especially if it's recent), and public opinion.

However, scholarly information is often not available through a regular web search. If you do find scholarly information through a web search engine, especially if you are off campus, you may be asked for payment to access it. Ohio State Libraries can usually get you what you need without additional payment.

Remember to follow the advice in Source Evaluation to determine whether information you locate online is suitable for your information needs.

How to Use Them

See links above. Use of each tool varies. If a search engine has an advanced search, it may include options such as specifying format, language, domain, or date range.

TIPS FOR COMMON SEARCH TOOLS

Academic Search Complete

- **AND:** default (alternatively: term AND term)
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

Bing

- **AND:** default
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** Not available
-

Google

- **AND:** default
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

WorldCat

- **AND:** term AND term
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

[OSU Library Catalog](#)

- **AND:** term AND term
- **OR:** term OR term
- **NOT:** term NOT term
- **Exact Phrase:** “exact phrase search”
- **Grouping:** term AND (term OR term)

7-EVALUATING SOURCES

THINKING CRITICALLY ABOUT SOURCES



Evaluating sources often involves piecing together clues.

Source evaluation usually takes place in two stages:

- First you try to determine which sources are credible and relevant to your assignment.
- Later, you try to decide which of those relevant and credible sources contain information that you actually want to quote, paraphrase, or summarize. This requires a closer reading, a finer examination of the source.

This lesson teaches the first kind of evaluation—how to weed out sources that are irrelevant and not credible and how to “weed in” those that are relevant enough and credible enough.

Because there often aren’t clear-cut answers when you evaluate sources, **most of the time you have to make inferences—educated guesses from available clues**—about whether to use information from the website or other source.

The clues are factors you should consider when trying to decide whether a source is:

- A relevant source of information – Is it truly about your topic and from the right time period?
 - A credible source of information – Is there sufficient reason to believe it's accurate?
-

Good Enough for Your Purpose?

Not every resource you turn up in your searches will be credible and relevant enough to meet your information needs. So, how will you ferret out the very best to use?

Sources should always be evaluated relative to your purpose—why you're looking for information. Your information needs will dictate:

- What kind of information will help.
- How serious you consider the consequences of making a mistake by using information that turns out to be inaccurate. When the consequences aren't very serious, it's easier to decide a site and its information are good enough for your purpose. Of course, there's a lot to be said for always having accurate information, regardless.
- How hard you're willing to work to get the credible, timely information that suits your purpose. (What you're learning here will make it easier.)

Thus, your standards for relevance and credibility may vary, depending on whether you need, say:

- Information about a personal health problem
- An image you can use on a poster
- Evidence to win a bet with a rival in the dorm
- Dates and times a movie is showing locally
- A game to have fun with
- Evidence for your argument in a term paper

For your research assignments, the consequences may be great if you use information that is not relevant or not credible.

What Do You Already Know?

You must already be continually evaluating information sources in your personal life. Think for a minute about what information you have acted on today (where to go, what to do, what to eat, whether to read this page, etc.). What helped you decide whether the information was relevant and credible?

Which of the factors below do you consider to be criteria for evaluating sources of information?

- My instructor recommended the source
- Other sources I like are linked to it
- I know who runs the site
- Its information makes sense with what I already know
- I recognize the truth when I see it
- The site fits with how I was raised
- All my friends accept its information / A friend recommended the website
- I've used similar sources before / I've used the source before and nothing bad happened
- The website is easy to use / It has all the information I need so I don't have to go to a lot of sites

- What kind of site it is / The website looks professional

You probably chose at least several factors that we would agree with. Take a look at what we recommend on the next page.

Activity: Quick Check

[Open activity in a web browser.](#)

EVALUATING WEBSITES

What are the clues for inferring a source's relevancy and credibility? Let's start with evaluating websites, since we all do so much of our research online. But we'll also include where to find clues relevant to sources in other formats when they differ from what's good to use with websites. Looking at specific places in the sources will mean you don't have to read all of every resource to determine its worth to you.

Note: Since we all do so much of our research online, this lesson emphasizes how to evaluate websites as sources. But along the way, we'll interject information about evaluating sources in other formats, too, when it differs from what's used with websites.

What Used to Help

It used to be easier to draw conclusions about an information source's credibility, depending on whether it was a print source or a web source. We knew we had to be more careful about information on the web—simply because all the filters that promoted accuracy involved in the print publishing process were absent from most web publishing. After all, it takes very little money, skill, and responsible intent to put content on the web, compared with what has to be done to convince print publishers your content is accurate and that they will make money by printing it.

However, many publishers who once provided only print materials have now turned to the web and have brought along their rigorous standards for accuracy. Among them are the publishers of government, university, and scholarly (peer-reviewed) journal websites. Sites for U.S. mainline news organizations also strive for accuracy rather than persuasion—because they know their readers have traditionally expected it. All in all, more websites now take appropriate care for accuracy than what used to be true on the web.

Nonetheless, it still remains very easy and inexpensive to publish on the web without any of the filters associated with print. So we all still need the critical thinking skills you'll learn here to determine whether websites' information is credible and relevant enough to suit your purpose.

6 Factors to Consider

Evaluating a website means considering the six factors below in relation to your purpose for the information. These factors are what you should gather clues about and use to decide whether a site is right for your purpose.

- The source's neighborhood on the web
- Author and/or publisher's background
- The degree of bias
- Recognition from others

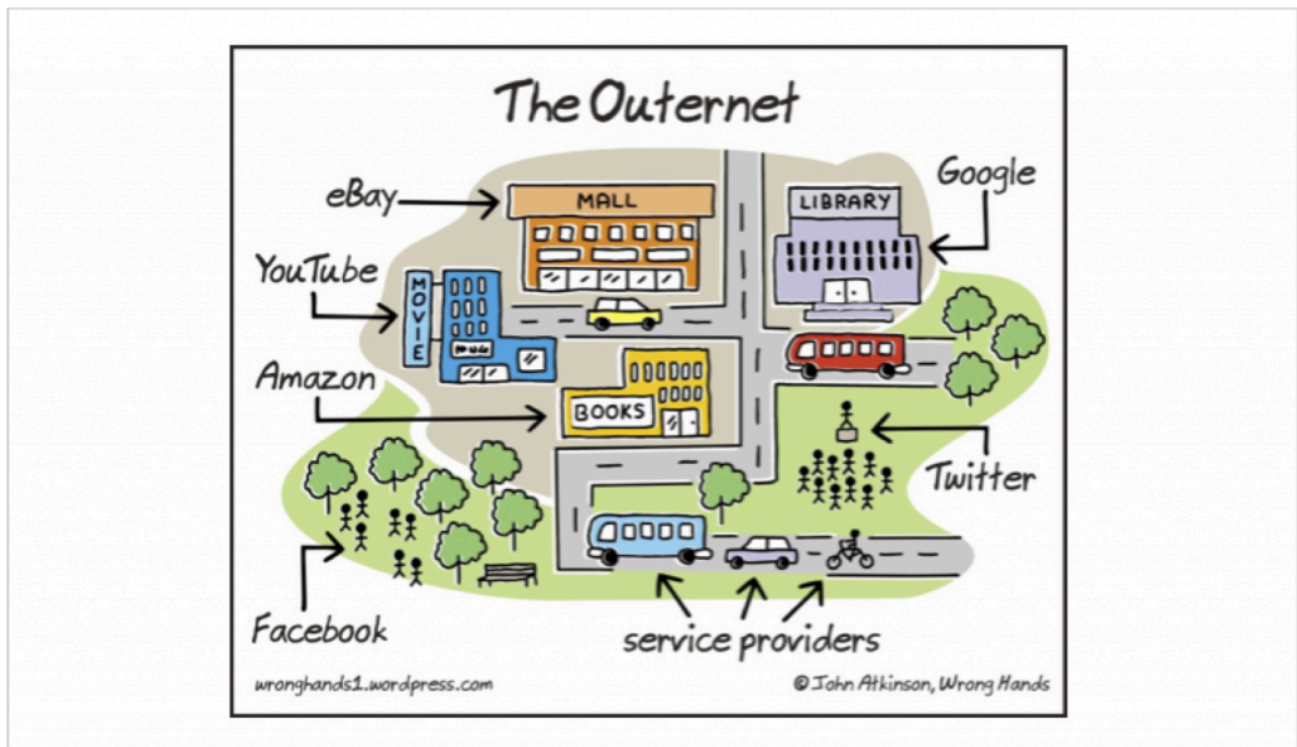
- Thoroughness of the content
- Currency of the content

How many factors you consider at any one time depends on your purpose when seeking information. In other words, you'll consider all six factors when you're looking for information for a research project or other high-stakes situation where making mistakes have serious consequences. But you might consider only the first three factors for many of your other information needs.

A SOURCE'S NEIGHBORHOOD

To understand this concept and begin to use it, imagine that all the sites on the web constitute a community. Just like in a geographical community, there are neighborhoods in which individual sites hang out.

Thinking about what neighborhood a source is in on the web can help you decide whether the site is credible, relevant, and suits your purpose.



Visualize the web as a community. (Image source: John Atkinson, [Wrong Hands](#))

Audio: Neighborhoods on the Web

Listen to the audio clip (or read the text version) to hear how intuitive this concept is. After you listen, the next activity will show you how to apply the concept.

[Listen to Audio](#) | [View Text Version](#)

Tip: Author's Purpose for Print

Rather than examine print sources for their web neighborhood, examine them for their author's

purpose. Read the introduction and conclusion and look at the table of contents to discern the author's purpose.

For instance, did the author intend to use the book or magazine article to inform/educate, persuade, sell, or entertain?

And is the author's purpose suitable for your purpose? For instance, does the fact that a resource was intended to persuade mean it can't help you answer your research question? (As you know from [Sources and Information Needs](#), yes.)

Activity: Self-Check

Why might you want to read information on an advocacy site (from the neighborhood of sites that promote particular ideas and behavior)—even when you're writing a term paper and it's not acceptable to cite that source because it persuades instead of educates and is not objective? See the bottom of the page for the answer.

Clues About a Website's Neighborhood

Watch the Understanding Google Search Results movie to better understand how you can quickly determine what kind of information you've turned up in a Google search.

Movie: Understanding Google Search Results (no audio)

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=119>

[View Video](#) | [View Text Version](#)

On a website, check pages labeled About This Site, Mission, Site Index, and Site Map, if available. (If such pages or similarly labeled ones don't exist, it may be a sign that the site may be less trustworthy.)

Ask yourself these questions to gather clues that will help you decide what neighborhood you're in:

- **Is the site selling products and/or services (even if there are articles and other useful information, too)?** Perhaps it's a retail, service center, or corporate site.
- **Are there membership applications and requests for contributions of money or time anywhere on the site?** They're usually a sign that you're on a site that promotes particular ideas or behavior – in other words, they're in the advocacy neighborhood.
- **Do postings, articles, reports, and/or policy papers give a one-sided view or multiple views on issues, people, and events?** If they're one-sided, the site is probably a commercial site or in the advocacy group neighborhood. If the information is even-handed and includes different sides of an issue, the site is more likely to be on the library/museum, school, or traditional U.S. news side of town. Sites there usually provide information designed to educate rather than persuade. (This does not apply to material labeled something like Opinion, of course, just as it doesn't apply to the editorial pages of print newspapers.)

Activity: Neighborhoods on the Web

Work through the three activities below to practice the concept of neighborhoods on the web.

Matching Site to Neighborhood – [Open activity in a web browser.](#)

Matching Neighborhood to Purpose – [Open activity in a web browser.](#)

Which Neighborhood? – [Open activity in a web browser.](#)

Example: Check Them Out

Think we're making a mountain out of a molehill about being careful about web sources? Please click the web icons below to look at three websites. Is there an inference(s) you can make that applies to all three? Perhaps that whether a website looks professionally done is not enough to insure that it is credible.

- RYT Hospital: Dwayne Medical Center – <http://rythospital.com>
 - Dog Island – <http://www.thedogisland.com>
 - The Manhattan Airport Foundation – <http://manhattanairport.org>
-

Making the Inference

Consider the clues. Then decide the extent that the site's neighborhood is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the resource's grade for neighborhood so you can combine it later with the grades you give the other factors.

Answer to Activity: Self-Check

The answer to the "Self-Check" Activity above is:

Advocacy sites are useful to learn about a particular viewpoint. They may provide a wealth of information—you just have to keep in mind that it's just one side's view and then also seek out the other side's view.

AUTHOR AND PUBLISHER

You'll always want to know who's providing the information for a website or other source. Do they have the education, training, or other experience that make you think they are authorities on the subject covered? Or do they just have opinions?

The more you know about the author and/or publisher, the more confidence you can have in your decision for or against using content from that source.

Authors and publishers can be individuals or organizations, including companies. (Web masters usually put things on the site, but do not don't decide what goes on all but the smallest websites. They often just carry out others' decisions.)

Sites that do not identify an author or publisher are generally considered less credible for many purposes, including term papers and other high-stakes projects. The same is true for sources in other formats.



The reputation of the author and publisher influences your confidence in a source.

Clues About an Author's and/or Publisher's Background

If they're available, take a look at pages called such things as About This Site, About Us, or Our Team first. But you may need to browse around a site further to determine its author. Look for a link labeled with anything that seems like it would lead you to the author. Other sources, like books, usually have a few sentences about the author on the back cover or on the flap inside the back cover.

You may find the publisher's name next to the copyright symbol, ©, at the bottom of at least some pages on a site. In books the identity of the publisher is traditionally on the back of the title page.

Sometimes it helps to look for whether a site belongs to a single person or to a reputable organization. Because many colleges and universities offer blog space to their faculty, staff, and students that uses the university's web domain, this evaluation can require deeper analysis than just looking at the address. Personal blogs may not reflect the official views of an organization or meet the standards of formal publication.

In a similar manner, a tilde symbol (~) preceding a directory name in the site address indicates that the page is in a "personal" directory on the server and is not an official publication of that organization. For example, you could tell that Jones' web page was not an official publication of XYZ University if his site's address was: <http://www.XYZuniversity.edu/~jones/page.html>. The tilde indicates it's just a personal web page—in the Residences, not Schools, neighborhood of the web.

Unless you find information about the author to the contrary, such blogs and sites should not automatically be considered to have as much authority as content that is officially part of the

university's site. Or you may find that the author has a good academic reputation and is using their blog or website to share resources he or she authored and even published elsewhere. That would nudge him or her toward the Schools neighborhood.

Learning what they have published before can also help you decide whether that organization or individual should be considered credible on the topic. Listed below are sources to use to look for what the organization or individual may have published and what has been published about them.

Tip: Find Out What the Author (Person or Organization) Has Published

Library Catalogs – Search in a large library catalog to find books written by the author.

For example:

- [OhioLINK](#)
- [WorldCat@OSU](#)

Web Article Database – Use a free web article database to search for articles by this author. Note: While you can search for free, you may not be able to retrieve articles unless searching through a library.

For example:

- [Google Scholar](#)
- [MagPortal.com](#)

Specialized Database – Locate articles written by the author by using a specialized database that covers the same topical area as information on the website. Check your library's website to find databases that you can use for this purpose. (Such databases are also called periodical indexes.)

For example:

- Use [ERIC](#) (OSU users only) to locate any articles published by the author of an education website.

Tip: Find Out What Has Been Written About The Author

Web Search Engine – Use a search engine to find web pages where the author's name is mentioned. (Be sure to search for the name as a phrase, as in "Jane Doe")

For example:

- [Google](#)
- [Yippy](#)

Full-Text Article Database – Use a database that searches the full-text of articles (not just descriptive information about the article) to find those that mention people and organizations.

For example:

- [Academic Search Complete](#) (OSU only)
- [LexisNexis Academic](#) (OSU only)

Specialized Biographical Sources – Use directories and indexes provided by your library to find backgrounds of people.

For example:

- [Biography Reference Bank](#) (OSU only)

Activity: Identifying Authors

[Open activity in a web browser.](#)

Making the Inference

Consider the clues. Then decide the extent that the source's author and/or publisher is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the source's grade for author and/or publisher so you can combine it later with the grades you give the other factors.

DEGREE OF BIAS

Most of us have biases, and we can easily fool ourselves if we don't make a conscious effort to keep our minds open to new information. Psychologists have shown over and over again that humans naturally tend to accept any information that supports what they already believe, even if the information isn't very reliable. And humans also naturally tend to reject information that conflicts with those beliefs, even if the information is solid. These predilections are powerful. Unless we make an active effort to listen to all sides we can become trapped into believing something that isn't so, and won't even know it.

— A Process for Avoiding Deception, [Annenberg Classroom](#)

Probably all sources exhibit some bias, simply because it's impossible for their authors to avoid letting their life experience and education have an effect on their decisions about what is relevant to put on the site and what to say about it.

But that kind of unavoidable bias is very different from a wholesale effort to shape the message so the site (or other source) amounts to a persuasive advertisement for something important to the author.

Even if the effort is not as strong as a wholesale effort, authors can find many—sometimes subtle—ways to shape communication until it loses its integrity. Such communication is too persuasive, meaning the author has sacrificed its value as information in order to persuade.

While sifting through all the web messages for the ones that suit your purpose, you'll have to pay attention to both what's on the sites and in your own mind.

That's because one of the things that gets in the way of identifying evidence of bias on websites is our own biases. Sometimes the things that look most correct to us are the ones that play to our own biases.



Look for evidence of bias in your sources.

Clues About Bias

Review the website or other source and look for evidence that the site exhibits more or less bias. The factors below provide some clues.

Examples: Bias

- [The Cigarette Papers](#) – Sources of information are documented for each chapter.
- [Public Agenda Issue Guide: Immigration](#) – Presents a wide range of opinion on this controversial topic.
- [White Poison: The Horrors of Milk](#) – Claims are not supported by documentation.

Coverage

Unbiased: This source's information is not drastically different from coverage of the topic elsewhere. Information and opinion about the topic don't seem to come out of nowhere. It doesn't seem as though information has been shaped to fit.

Biased: Compared to what you've found in other sources covering the same topic, this content seems to omit a lot of information about the topic, emphasize vastly different aspects of it, and/or contain stereotypes or overly simplified information. Everything seems to fit the site's theme, even though you know there are various ways to look at the issue(s).

Citing Sources

Unbiased: The source links to any earlier news or documents it refers to.

Biased: The source refers to earlier news or documents, but does not link to the news report or document itself.

Evidence

Unbiased: Statements are supported by evidence and documentation.

Biased: There is little evidence and documentation presented, just assertions that seem intended to persuade by themselves.

Vested Interest

Unbiased: There is no overt evidence that the author will benefit from whichever way the topic is decided.

Biased: The author seems to have a "vested interest" in the topic. For instance, if the site asks for contributions, the author probably will benefit if contributions are made. Or, perhaps the author may get to continue his or her job if the topic that the website promotes gets decided in a particular way.

Imperative Language

Unbiased: Statements are made without strong emphasis and without provocative twists. There aren't many exclamation points.

Biased: There are many strongly worded assertions. There are a lot of exclamation points.

Multiple Viewpoints

Unbiased: Both pro and con viewpoints are provided about controversial issues.

Biased: Only one version of *the truth* is presented about controversial issues.

Making the Inference

Consider the clues. Then decide the extent that the bias you detected on the source is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the source's grade for bias so you can combine it later with the grades you give the other factors.

RECOGNITION FROM OTHERS

Checking to see whether others have linked to a website or tagged or cited it lets you know who else on the web recognizes the value of the site's content. Reader comments and ratings can also be informative about some sites you may be evaluating, such as blogs.

If your source is a book, the blurbs on the front or back cover give you information from authors, experts, or other well-known people who were willing to praise the book and/or author. The same kind of "mini-reviews" may be available on the publisher's website. You can also look for reviews of the book or other source by using Google and Google Scholar.

Those links, tags, bookmarks, citations, and positive reader comments and ratings are evidence that other authors consider the site exemplary. Book reviews, of course, may be either positive or negative.



Ratings and positive comments and review are evidence that others find a source valuable.

Exactly which individuals and organizations are doing the linking, tagging, citing, rating and commenting may also be important to you. There may be some company you'd rather your site not keep! Or, maybe the sites that link to the one you're evaluating may help solidify your positive feelings about the site.

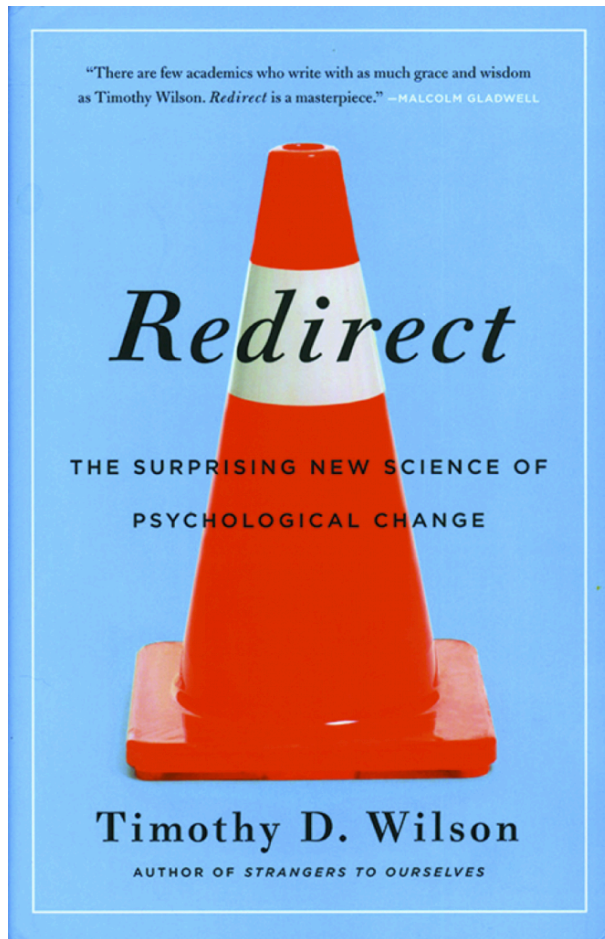
Don't let an absence of links, tags, citations, ratings, and comments damn the site in your evaluation. Perhaps it's just not well-known to other authors. The lack of them should just mean this factor can't add any positive or negative weight to your eventual decision to use the site—it's a neutral.

Tip: Peer Review as Recognition

The peer review most articles undergo before publication in a scholarly journal lets you know they're considered by other scholars to be worth publishing. You might also be interested to see to what extent other researchers have used an article after it was published. (That use is what necessitates their citation.) But keep in mind that there may not be any citations for very new popular magazines, blogs, or scholarly journal articles.

Activity: Influence You

Would the blurb on the front cover of *Redirect* by psychologist Timothy Wilson influence you positively or negatively in your evaluation of the book?

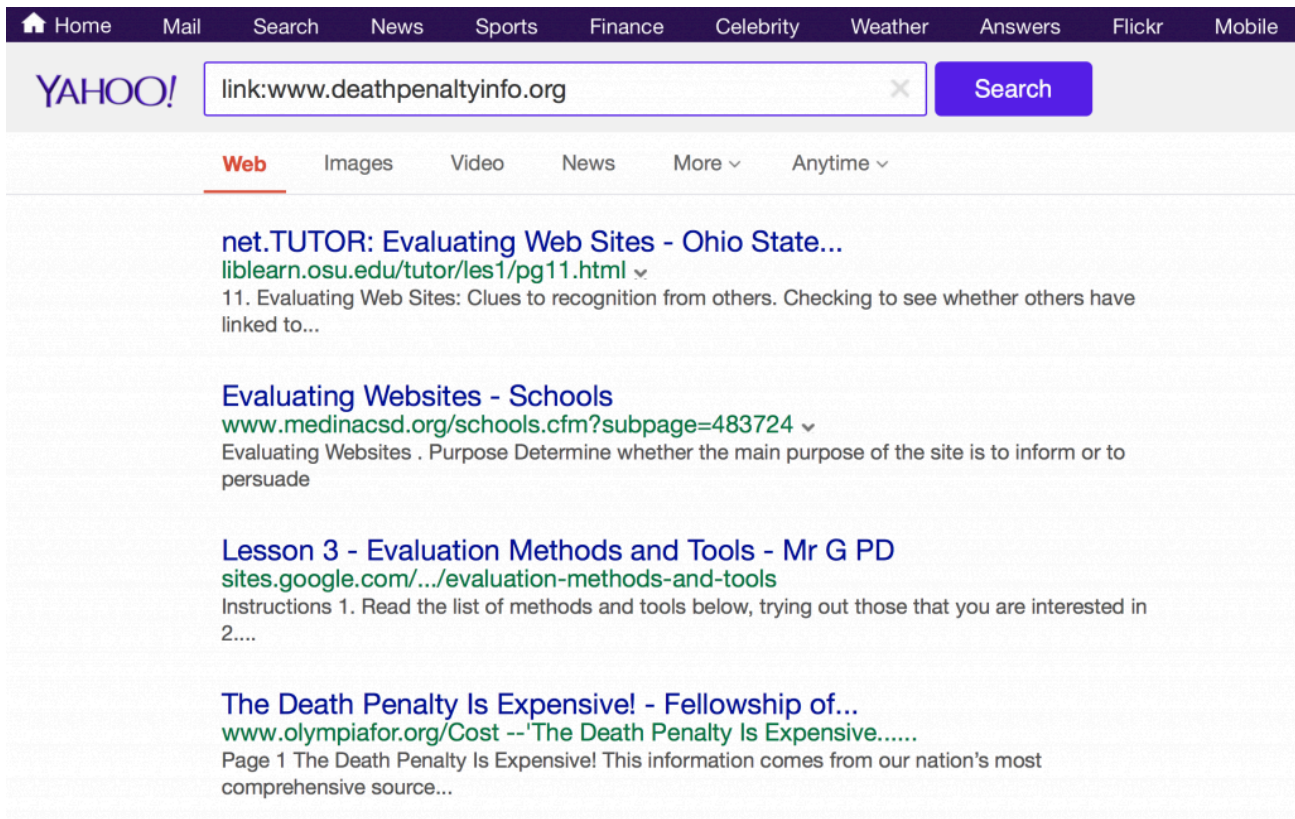


The blurb says: "There are few academics who write with as much grace and wisdom as Timothy Wilson. *Redirect* is a masterpiece. – Malcolm Gladwell"

Clues about Recognition

Find sites that link to a particular URL. For Google and Yahoo!, enter link:[URL of known site] in the search box

For example: link:www.deathpenaltyinfo.org



Use Yahoo! or Google to see which sites link to a particular URL.

[View the live example.](#)

Find citations of an article. Although there is no simple way to find every source that cites an article in a popular magazine, a blog, or a scholarly journal, there are some ways to look for these connections.

For articles published in popular magazines or blogs, enter the title of the article in quotes in the search box of a search engine like Google. The resulting list should show you the original article you're evaluating, plus other sites that have mentioned it in some way. Click on those that you want to know more about.

Example: Finding Mentions

Here's an example using Google to find mentions for a blog article called [Help Wanted: 11 million college grads](#) by Bill Gates.

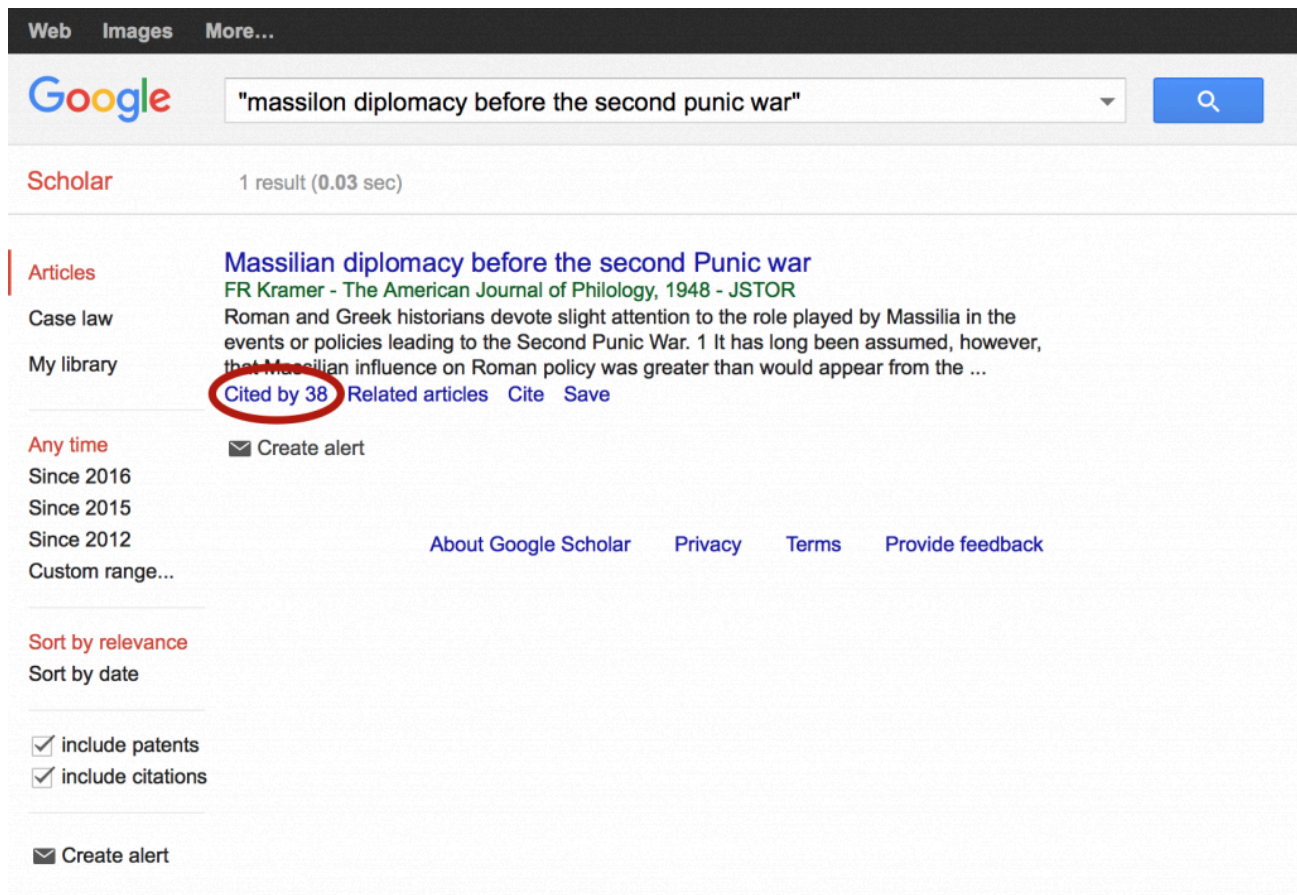
Activity: Inferences

Use Google Search to determine how many sites have made links to these sites. Click each link below to launch your web browser. Notice what is filled in the search bar to find linked sites.

- www.ipl.org
- www.goaskalice.columbia.edu

For articles published in scholarly journals, use Google Scholar to enter the title of the article in quotes. In the results list, find the article you're evaluating. (Many articles have similar titles.) Look for the number of citations in the lower left of the listing for your article. If you want more information

on the authors who have done the citing, click on the citation number for a clickable list of articles or papers and get the names of authors to look up at the end of the articles or with a search engine. (This is a good way to discover more articles about your topic, too.)



Google Scholar shows how many articles have cited a given article.

[View the live example.](#)

You can also use specialized citation databases, such as [Web of Science](#) and [Scopus](#) (both OSU only), to find where an article or author has been cited.

Making the Inference

Consider the clues. Then decide the extent that the source's recognition from others is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

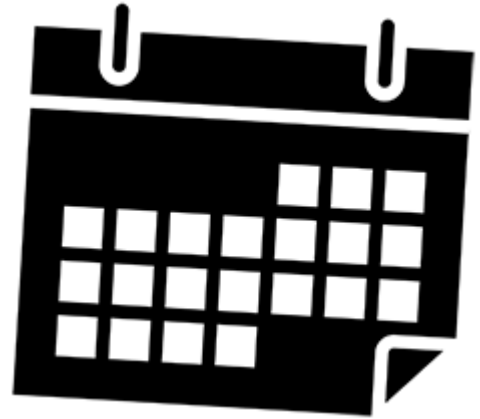
- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the source's grade for recognition so you can combine it later with the grades you give the other factors.

CURRENCY OF THE CONTENT

If the topic of your research is time-sensitive, the currency of information in the source will be important to your decision about whether it fits your purpose. You'll be asking yourself whether its information is from the right time period to suit your purpose.

For some topics, that may mean you want the most up-to-date information. But for other topics, you may need primary sources—those created at the same time as the event or condition you're researching. (Secondary sources are those that cite, comment on, or build on primary sources.)



Clues About Currency

Check dates and other indicators that a source is current.

Click around a website to gather clues as to how recent the information is. Look for statements about when the information was created:

- The dateline on a newspaper article represented there, for instance, and/or when it was posted on the site
- Page creation or revision dates
- A “What’s New” page that describes when content was updated
- Press releases or any other dated materials

Also test links on a website to see whether they work or are broken. If several are broken, perhaps no one is looking after the site anymore, which could indicate there is newer information that is relevant to the site that has never been posted there.

In a book, look at the back of the title page to see when it was published. Also take a look at the publication dates for sources listed in the bibliography. That will help you determine how current the information cited in the book is.

Activity: Currency

Click the image to open a web browser to the website Jewish Studies Resources, <http://www.princeton.edu/~pressman/jewish.html>.

Notice that tilde (~) in the URL. As mentioned earlier, that indicates this is not an official page of Princeton University but instead is a personal page. Find the name of the person who seems to be identified as the author of the home page at the bottom of that page. Is she an expert on history sources?

Now consider how you could determine whether the site's information is current enough for your purpose.

Example: Currency

Check out how currency is handled on [TED](#). This site provides videos of speakers talking about new ideas in technology, entertainment, and design. (That's what TED stands for.) There's a New Releases page and every video has the date on which the speaker presented. See the bottom of the page for the answer.

Making the Inference

Consider the clues. Then decide the extent that the source's currency is acceptable for your purpose. It might help to grade the extent that this factor contributes to the source being suitable on a scale like this one:

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the resource's grade for currency so you can combine it later with the grades you give the other factors.

Answer to Activity: Currency

The answer to the "Currency" Activity above is:

Nancy Pressman Levy.

The author is Nancy Pressman Levy. Searching that name shows that, among other library positions, she's been the head of the library for public and international affairs at Princeton and has written many guides and other items about history and other subjects for Princeton University's library. It's fair to say she is an expert in history sources.

The home page of this site on web sources about Jewish Studies was last updated 11/2003. However, this page serves as an index to other pages, which may have different degrees of being up-to-date. So you could consider the currency of each.

THOROUGHNESS

Figuring out whether a website or other source is suitable for your purpose also means looking at how thoroughly it covers your topic

You can evaluate thoroughness in relation to other sources on the same topic. Compare your source to how other sources cover the material, checking for missing topics or perspectives.



Clues About Thoroughness

Click around a site to get some idea of how thoroughly it covers the topic. If the source you are evaluating is a print resource, read the introduction and conclusion and also the table of contents to get a glimpse of what it covers. Look at the index to see what subject is covered with the most pages. Is it thorough enough to meet your information need?

Consider how well a source covers your topic.

Tip: Related Sites

Use Google to find other sites on the same topic by entering **related:[the URL of the site you know]** in the search box.

For example: [related:guides.osu.edu](https://www.google.com/search?q=related:guides.osu.edu)

Use this technique to browse other sites Google turns up. Do other sites cover aspects of the topic that are missing from the site you are evaluating? Or does your site stack up pretty well against the competition?

Activity: Evaluating Websites

[Open activity in a web browser.](#)

Making the Inference

Consider the clues. Then decide the extent that the source's thoroughness is acceptable for your

purpose. It might help to grade the extent that this factor contributes to the source being suitable on a scale like this one:

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

You'll want to make a note of the source's grade for thoroughness so you can combine it later with the grades you give the other factors.

COMBINING THE FACTORS

Once you've considered each factor used in evaluating a source, it's important to take a look at the inferences you made about them. Now is the time to look at those grades all together—to average them if you've been assigning grades—and to make one more inference.

Taking the grade on each factor into account, can you infer that the source is relevant and credible enough for your purpose? If it isn't, this is one source that can't be helpful in your project. If it is relevant and credible enough, you can use information from that resource with confidence.

Making the Final Inference

Assume you're writing a term paper and are considering using information from Site XYZ. You ran through the evaluation process as you looked over the site, and you made notes about the grades you assigned.

The grades you gave individual factors are:

- Neighborhood: A
- Author/publisher's background: B
- Degree of bias: A
- Recognition from others: No Evidence
- Thoroughness: C
- Currency of the content: A

You average the grades (A=4, B=3, C=2, D=1, F=0), remembering not to include the factor on which you gave no grade. The score was 3.4, about a B, which is a "Good, but could be better" score on the scale we used in this tutorial. You decide to use information from this site in your project.

- A – Very Acceptable
- B – Good, but could be better
- C – OK in a pinch
- D – Marginal
- F – Unacceptable

8-ETHICAL USE OF SOURCES

ETHICAL USE AND CITING SOURCES



It's helpful to understand why to cite your sources.

You likely know that research projects always need a reference or a works cited page (also called a bibliography). But have you ever wondered why?

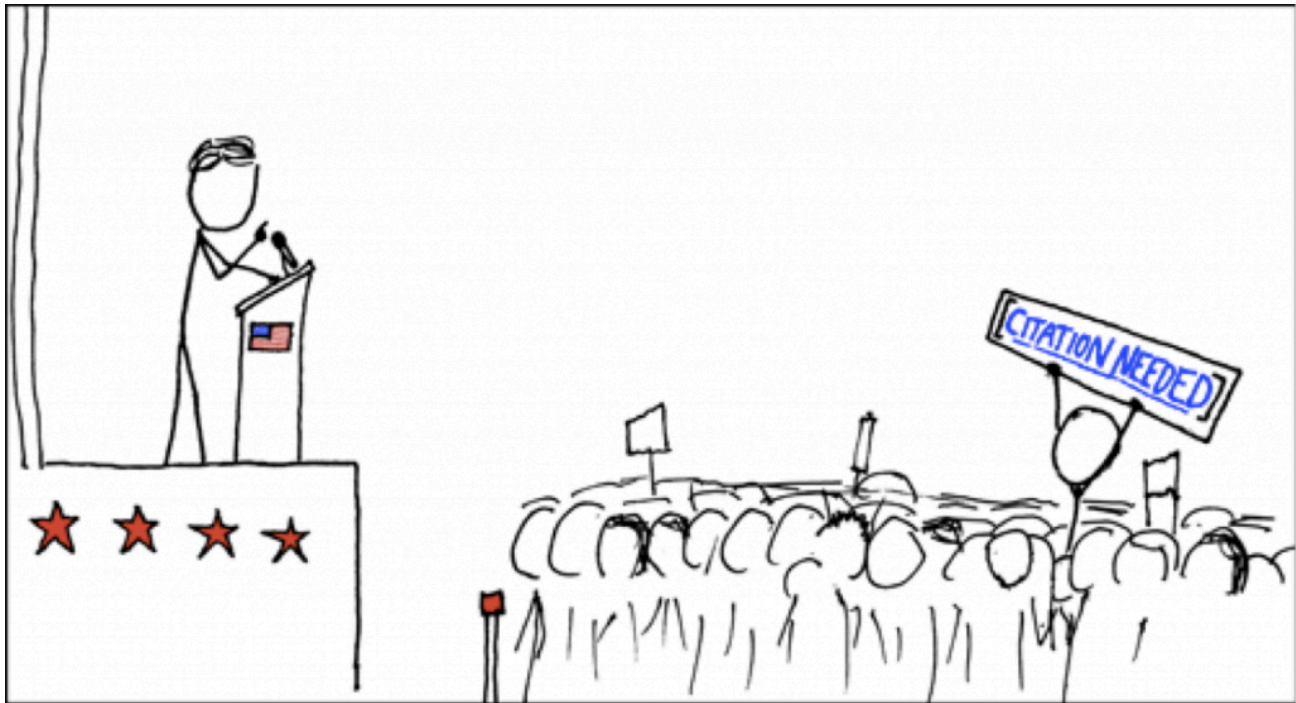
There are some big picture reasons that don't often get articulated that might help you get better at meeting the citation needs of research projects. It's helpful to understand both the theory behind citing, as well as the mechanics of it, to really become a pro.

Tip: How to Cite Sources

This section introduces the concept of citing source, so you can begin your search for sources with it in mind. See the next section, [How to Cite Sources](#) for examples and the steps for citing appropriately.

In everyday life, we often have conversations where we share new insights with each other. Sometimes these are insights we've developed on our own through the course of our own everyday experiences,

thinking, and reflection. Sometimes these insights come after talking to other people and learning from additional perspectives. When we relate the new things we have learned to our family, friends, or co-workers, we may or may not fill them in on how these thoughts came to us.



In everyday conversation and political speeches, evidence for arguments is often not provided. (Image source: [XKDC](#))

Academic research leads us to the insight that comes from gaining perspectives and understandings from other people through what we read, watch, and hear. In academic work we must tell our readers who and what led us to our conclusions. Documenting our research is important because people rely on academic research to be authoritative, so it is essential for academic conversation to be as clear as possible. Documentation for clarity is a shared and respected practice, and it represents a core value of the academy called “academic integrity.” It is a way to distinguish academic conversations (or discourse) from everyday conversations (or discourse).

It is hard to talk about citation practices without considering some related concepts. Here are some definitions of those concepts that are often mentioned in assignments when citation is required.

What Is Academic Integrity?

Different universities have different definitions. Ohio State University uses this definition:

Academic integrity is a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action.

Please take a few moments to read the [Office of Undergraduate Education web page](#) that describes these values in more detail.

In other words, you must take full responsibility for your work, acknowledge your own efforts, and acknowledge the contributions of others’ efforts. Working/Writing with integrity requires accurately

representing what you contributed, as well as acknowledging how others have influenced your work. When you are a student, an accurate representation of your knowledge is important because it will allow both you and your professors to know the extent to which you have developed as a scholar. Part of that development is evidenced by how you apply the ruler for acknowledging the work of others.

What Is Academic Misconduct?

As you might imagine, academic misconduct is when you do not use integrity in your academic work. Academic misconduct includes many different unacceptable behaviors, but the one most relevant to what we are discussing here is submitting plagiarized work:

Submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's work or ideas as one's own; it includes the unacknowledged word-for-word use and/or paraphrasing of another person's work, and/or the inappropriate unacknowledged use of another person's ideas.

To see the full definition of academic misconduct, refer to the [Ohio State University Code of Student Conduct](#).

Note: Check Your Syllabi

You might have noticed a reference to the Code of Student Conduct on several of your syllabi, as faculty are asked to include this statement for your benefit:

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the [Code of Student Conduct](#).

What Is Plagiarism?

Plagiarism is defined by the OSU First Year Experience Office in this way:

At any stage of the writing process, all academic work submitted to the teacher must be a result of a student's own thought, research or self-expression. When a student submits work purporting to be his or her own, but which in any way borrows organization, ideas, wording or anything else from a source without appropriate acknowledgment of the fact, he/she is engaging in plagiarism.

Take time to look at the [full definition](#), which also describes another form of academic misconduct called "collusion."

Plagiarism can be intentional (knowingly using someone else's work and presenting it as your own) or unintentional (inaccurately or inadequately citing ideas and words from a source). It may be impossible for your professor to determine whether plagiarized work was intentional or unintentional. But in either case, plagiarism puts both you and your professor in a compromising position.

While academic integrity calls for work resulting from your own effort, scholarship requires that you learn from others. So in the world of academic scholarship you are actually expected to learn new things from others AND come to new insights on your own. There is an implicit understanding that as a

student you will be both using other's knowledge as well as your own insights to create new scholarship. To do this in a way that meets academic integrity standards you must acknowledge the part of your work that develops from others' efforts. You do this by citing the work of others. You plagiarize when you fail to acknowledge the work of others and do not follow appropriate citation guidelines.

For more information on plagiarism, see [Handouts – Plagiarism](#) from OSU's Center for the Study and Teaching of Writing.

What Is Citing?

Citing, or citation, is a practice of documenting specific influences on your academic work. See [How to Cite Sources](#) for details.

In other words, you must cite all the sources you quote directly, paraphrase, or summarize as you:

- Answer your research question
- Convince your audience
- Describe the situation around your research question and why the question is important
- Report what others have said about your question

WHY CITE SOURCES?

As a student citing is important because it shows your reader (or professor) that you have invested time in learning what has already been learned and thought about the topic before offering your own perspective. It is the practice of giving credit to the sources that inform your work.

Our definitions of academic integrity, academic misconduct and plagiarism, also give us important reasons for citing the sources we use to accomplish academic research. Here are all the good reasons for citing.

To Avoid Plagiarism & Maintain Academic Integrity

Misrepresenting your academic achievements by not giving credit to others indicates a lack of academic integrity. This is not only looked down upon by the scholarly community, but it is also punished. When you are a student this could mean a failing grade or even expulsion from the university.

To Acknowledge the Work of Others

One major purpose of citations is to simply provide credit where it is due. When you provide accurate citations, you are acknowledging both the hard work that has gone into producing research and the person(s) who performed that research.

Think about the effort you put into your work (whether essays, reports, or even non-academic jobs): if someone else took credit for your ideas or words, would that seem fair, or would you expect to have your efforts recognized?

To Provide Credibility to Your Work & to Place Your Work in Context

Providing accurate citations puts your work and ideas into an academic context. They tell your reader that you've done your research and know what others have said about your topic. Not only do citations provide context for your work but they also lend credibility and authority to your claims.

For example, if you're researching and writing about sustainability and construction, you should cite experts in sustainability, construction, and sustainable construction in order to demonstrate that you are well-versed in the most common ideas in the fields. Although you can make a claim about sustainable construction after doing research only in that particular field, your claim will carry more weight if you can demonstrate that your claim can be supported by the research of experts in closely related fields as well.

Citing sources about sustainability and construction as well as sustainable construction demonstrates the diversity of views and approaches to the topic. In addition, proper citation also demonstrates the

ways in which research is social: no one researches in a vacuum—we all rely on the work of others to help us during the research process.

To Help Your Future Researching Self & Other Researchers Easily Locate Sources

Having accurate citations will help you as a researcher and writer keep track of the sources and information you find so that you can easily find the source again. Accurate citations may take some effort to produce, but they will save you time in the long run. So think of proper citation as a gift to your future researching self!

CHALLENGES IN CITING SOURCES

Here are some challenges that might make knowing when and how to cite difficult for you. Our best advice for how to overcome these challenges is in the first item.

Running Out of Time

When you are a student taking many classes simultaneously and facing many deadlines, it may be hard to devote the time needed to doing good scholarship and accurately representing the sources you have used. Research takes time. The sooner you can start and the more time you can devote to it, the better your work will be. From the beginning, be sure to include in your notes where you found information you could quote, paraphrase, and summarize in your final product.

Having to Use Different Styles

Different disciplines require that your citations be in different styles: which publication information is included and in what order. So your citations for different courses could look different for different courses, particularly for courses outside your major.

Not Really Understanding the Material You're Using

If you are working in a new field or subject area, you might have difficulty understanding the information from other scholars, thus making it difficult to know how to paraphrase or summarize that work properly.

Running Out of Time

When you are a student taking many classes simultaneously and facing many deadlines, it may be hard to devote the time needed to doing good scholarship and accurately representing the sources you have used. Research takes time. The sooner you can start and the more time you can devote to it, the better your work will be. From the beginning, be sure to include in your notes where you found information you could quote, paraphrase, and summarize in your final product.

Shifting Cultural Expectations of Citation

Because of new technologies that make finding, using, and sharing information easier, many of our cultural expectations around how to do that are changing as well. For example, blog posts often “reference” other articles or works by simply linking to them. It makes it easy for the reader to see where the author’s ideas have come from and to view the source very quickly. But in these more informal writings, blog authors do not have a list of citations (bibliographic entries). The links do the work for them. This is a great strategy for online digital mediums, but this method fails over time when links break and there are no hints (like an author, title and date) to know how else to find the reference, which might have moved.

This example of a cultural change of expectations in the non-academic world might make it seem that there has been a change in academic scholarship as well, or might make people new to academic scholarship even less familiar with citation. But in fact, the expectations around citing sources in academic research remain formal.

9-HOW TO CITE SOURCES

CITATION AND CITATION STYLES



Sources that influenced your thinking and research must be cited in academic writing.

Citing sources is an academic convention for keeping track of which sources influenced your own thinking and research. (See [Ethical Use of Sources](#) for many good reasons why you should cite others' work.)

Most citations require two parts:

- The full bibliographic citation on the Bibliography page or References page, or Works Cited page of your final product.
- An indication within your text (usually author and publication date and maybe the page number from which you are quoting) that tells your reader where you have used something that needs a citation.

With your in-text citation, your reader will be able to tell which full bibliographic citation you are referring to by paying attention to the author's name and publication date.

Let's look at an example.

Example: Citations in Academic Writing

Here's a citation in the text of an academic paper:

Studies have shown that compared to passive learning, which occurs when students observe a lecture, students will learn more and will retain that learning longer if more active methods of teaching and learning are used (Bonwell and Eison 1991; Fink 2003).

The information in parentheses coordinates with a list of full citations at the end of the paper.

At the end of the paper, these bibliographic entries appear in a reference list:

Bonwell, C. G., and Eison, J. A. 1991. "Active learning: Creating excitement in the classroom." ASHE-ERIC Higher Education Rep. No. 1, George Washington Univ., Washington, D.C.

Fink, L. D. 2003. *Creating significant learning experiences*, Wiley, New York.

You can see the [full article](#) [OSU login required] from which this example was taken online.

Citation Styles

Style guides set the specific rules for how to create both in-text citations and their full bibliographic citations.

There are over a dozen kinds of citation styles. While each style requires much of the same publication information to be included in a citation, the styles differ from each other in formatting details such as capitalization, punctuation, and order of publication information, and whether the author's name is given in full or abbreviated.

Example: Differences in Citation Styles

The image below shows bibliographic citations in four common styles. Notice that they contain information about who the author is, article title, journal title, publication year, and information about volume, issue, and pages. Notice also the small differences in punctuation, order of the elements, and formatting that **do make a difference**.

APA:

Rosenhan, D. L. (1973). On Being Sane in Insane Places. *Science*, 179(4070), 250-258. doi:10.1126/science.179.4070.250

Chicago:

Rosenhan, D. L. "On Being Sane in Insane Places." *Science* 179, no. 4070 (1973): 250-58. doi:10.1126/science.179.4070.250.

MLA:

Rosenhan, David L. "On Being Sane in Insane Places." *Science* 179.4070 (1973): 250-258. Web. 4 May 2016.

AMA:

Rosenhan DL. On being sane in insane places. *Science*. 1973; 179(4070):250-258. doi:10.1126/science.179.4070.250

Differences between citation practices occur mainly in formatting.

Compare citation elements (including the punctuation and spacing) in the same color to see how each style handles their information.

STEPS FOR CITING

To write a proper citation we recommend following these steps, which will help you maintain accuracy and clarity in acknowledging sources.

Step 1: Choose Your Citation Style

Find out the name of the citation style you must use from your instructor, the directions for an assignment, or what you know your audience or publisher expects. Then search for your style at the [Purdue Online Writing Lab](#) (OWL) or use Google or Bing to find your style's stylebook/handbook and then purchase it or as for it at a library.

Step 2: Create In-Text Citations

Find and read your style's rules about in-text citations, which are usually very thorough. Luckily, there are usually examples provided that make it a lot easier to learn the rules.

EXAMPLE: Style Guides Are Usually Very Thorough

For instance, your style guide may have different rules for when you are citing:

- Quotations rather than summaries rather than paraphrases
 - Long, as opposed to short, quotations.
 - Sources with one or multiple authors.
 - Books, journal articles, interviews and email, or electronic sources.
-

Step 3: Determine the Kind of Source

After creating your in-text citation, now begin creating the full bibliographic citation that will appear on the References or Bibliography page by deciding what kind of source you have to cite (book, film, journal article, webpage, etc.).

EXAMPLE: Using a Style Guide to Create an In-Text Citation

Imagine that you're using APA style and have the [APA style guide rules for in-text citations open in OWL](#). In your psychogeography paper, you want to quote the authors of the book *The Experience of Nature*, Rachel Kaplan and Stephen Kaplan, which was published in 1989. What you want to quote is from page 38 of the book.

Here's what you want to quote:

“The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one’s path is clear or blocked.”

1. Skim the headings in the style guide to remind yourself of what its rules concern.

Since it has rules about the length of quotations, you count the number of words in what you want to quote and find that your quote has 38, which is within the range for short quotations (less than 40), according to the APA style guide. According to the rule for short quotations, you see that you’re supposed to introduce the quote by attributing the quote to the author (last name only) and adding the publication date in parentheses. You write:

According to the Kaplans (1989), “The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one’s path is clear or blocked.”

2. Then you notice that the example in the style guide includes the page number on which you found the quotation. It appears at the end of the quote (in parentheses and outside the quote marks but before the period ending the quotation). So you add that:

According to the Kaplans (1989), “The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one’s path is clear or blocked” (p.38).

3. You’re feeling pretty good, but then you realize that you have overlooked the rule about having multiple authors. You have two and their last names are both Kaplan. So you change your sentence to:

According to **Kaplan and Kaplan** (1989), “The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one’s path is clear or blocked” (p.38).

So you have your first in-text citation for your final product:

According to Kaplan and Kaplan (1989), “The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one’s path is clear or blocked” (p.38).

Step 4: Study Your Style’s Rules for Bibliographic Citations

Next, you’ll need a full bibliographic citation for the same source. This citation will appear on the References page or Bibliography page or Works Cited page. (APA style, which we’re using here, requires a page called References.) Bibliographic citations usually contain more publication facts than you used for your in-text citation, and the formatting for all of them is very specific.

EXAMPLE: Bibliographic Citation Rules Are Very Specific

- Rules vary for sources, depending, for instance, on whether they are books, journal articles, or online sources.
- Sometimes lines of the citation must be indented.

- Authors' names usually appear last name first.
 - Authors' first names of authors may be initials instead.
 - Names of sources may or may not have to be in full.
 - Names of some kinds of sources may have to be italicized.
 - Names of some sources may have to be in quotes.
 - Dates of publication appear in different places, depending on the style.
 - Some styles require Digital Object Identifiers (DOIs) in the citations for online sources.
-

Step 5: Identify Citation Elements

Figure out which bibliographic citation rules apply to the source you've just created an in-text citation for. Then apply them to create your first bibliographic citation.

Example: Using a Style Guide to Create a Bibliographic Citation

Imagine that you're using APA style and have the [APA style guide rules for bibliographic citations open in OWL](#). Your citation will be for the book called *The Experience of Nature*, written by Rachel Kaplan and Stephen Kaplan and published in 1989.

1. You start by trying to apply OWL's basic rules of APA style, which tell you your citation will start with the last name of your author followed by his or her first initial, and that the second line of the citation will be indented. So you write: **Kaplan, R. and Kaplan, S.** and remind yourself to indent the second line when you get there.
 2. Since you have two authors, you look for a rule regarding that situation, which requires a comma between the authors and an ampersand between the names. So you write: Kaplan, R., & Kaplan, S.
 3. Because you know your source is a book, you look for style guide rules and examples about books. For instance, the rules for APA style say that the publication date goes in parentheses, followed by a period after the last author's name. And that the title of the book is italicized. You apply the rules and examples and write the publication information you know about your source: Kaplan, R., & Kaplan, S. (1989). **The Experience of Nature.**
 4. Next, you look at the rules and examples of book citations and notice that they show the city where the book was published and the publisher. So you find that information about your source (in a book, usually on the title page or its back) and write: Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature*. **Cambridge: Cambridge University Press.**
 5. Congratulations, especially about remembering to indent that line! You have created the first bibliographic citation for your final product.
-

Step 6: Repeat the steps for creating an in-text citation and a bibliographic citation for each of your sources.

Create your bibliographic citation by arranging publication information to match the example you chose in Step 4. Pay particular attention to what is and is not capitalized and to what punctuation and spaces separate each part that the example illustrates.

Movie: Finding the Information You Need: PDF and HTML Journal Articles

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=155>

[View video](#)

Movie: Finding the Information You Need: Citing Information for Web and Online Multimedia Sources

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=155>

[View video](#)

Tip: Citation Software

If you like, you can use citation generator software to arrange the information needed for your citation according to the style guide you chose. Learn more later in this section.

Activity: Deciphering Citations

[Open activity in a web browser.](#)

CITATION SOFTWARE

You may be familiar with the many citation generators that allow you to auto-generate reference lists from citation data. Some allow you to save and store citations to reuse them in different lists and in different work, as needed.

Such tools are worth investigating and learning about for any long-term research project. Zotero is online and available for free to anyone from anywhere. RefWorks and EndNote are available to all OSU students, faculty, and staff from anywhere because OSU Libraries subscribes to this service. For information about using any of these tools, go to [software available to OSU students](#).



Common Citations Tools

Good reasons to use citation generation software include:

- To save time: it takes citation generation software only a few seconds to create a citation.
- To easily convert citations from one style to another.
- To have a centralized source list that is not attached to a specific project, which allows you to reuse references and their citations in various projects.

Care you must use with citation generation software includes:

- Citation generation software is only as good as the information entered into it. In other words, if you provide incorrect information or do not include some information, then your citation will be incorrect.
- Most citation generation software can create citations by searching for the information online. Sometimes software can pull the information from the wrong edition of a source, for example, or specific formatting (such as italics) might be lost. Or perhaps the generator didn't use the latest version of the style guide.
- **Always review the citations you create with this software.**

WHEN TO CITE

Citing sources is often described as a straightforward, rule-based practice. But in fact, there are many gray areas around citation, and learning how to apply citation guidelines takes practice and education. If you are confused by it, you are not alone – in fact you might be doing some good thinking. Here are some guidelines to help you navigate citation practices.

Cite when you are directly quoting. This is the easiest rule to understand. If you are stating word-for-word what someone else has already written, you must put quotes around those words and you must give credit to the original author. Not doing so would mean that you are letting your reader believe these words are your own and represent your own effort.

Cite when you are summarizing and paraphrasing. This is a trickier area to understand. First of all, summarizing and paraphrasing are two related practices but they are not the same. Summarizing is when you read a text, consider the main points, and provide a shorter version of what you learned. Paraphrasing is when you restate what the original author said in your own words and in your own tone. Both summarizing and paraphrasing require good writing skills and an accurate understanding of the material you are trying to convey. Summarizing and paraphrasing are difficult to do when you are a beginning academic researcher, but these skills become easier to perform over time with practice.

Cite when you are citing something that is highly debatable. For example, if you want to claim that the Patriot Act has been an important tool for national security, you should be prepared to give examples of how it has helped and how experts have claimed that it has helped. Many U.S. citizens concerned that it violates privacy rights won't agree with you, and they will be able to find commentary that the Patriot Act has been more harmful to the nation than helpful. You need to be prepared to show such skeptics that you have experts on your side, too.

Tip: Why Cite Sources?

This section covers how and when to cite sources. For a discussion of *why* to cite sources, see [Ethical Use of Sources](#).

When Don't You Cite?

Don't cite when what you are saying is your own insight. As you learned in [The Purpose of Academic Argument](#), research involves forming opinions and insights around what you learn. You may be citing several sources that have helped you learn, but at some point you must integrate your own opinion, conclusion, or insight into the work. The fact that you are *not* citing it helps the reader understand that this portion of the work is your unique contribution developed through your own research efforts.

Don't cite when you are stating common knowledge. What is common knowledge is sometimes difficult to discern. In general, quick facts like historical dates or events are not cited because they are common knowledge.

Examples of information that would not need to be cited include:

- The Declaration of Independence was signed in 1776.
- Barack Obama became the 44th president of the United States in January, 2009.

Some quick facts, such as statistics, are trickier. For example, the number of gun-related deaths per year probably should be cited, because there are a lot of ways this number could be determined (does the number include murder only, or suicides and accidents, as well?) and there might be different numbers provided by different organizations, each with an agenda about gun laws.

A guideline that can help with deciding whether or not to cite facts is to determine whether the same data is repeated in multiple sources. If it is not, it is best to cite.

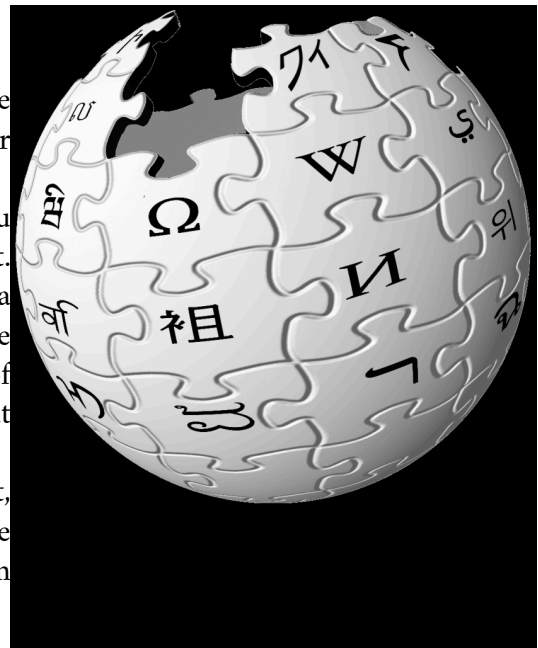
The other thing that makes this determination difficult might be that what seems new and insightful to you might be common knowledge to an expert in the field. You have to use your best judgment, and probably err on the side of over-citing, as you are learning to do academic research. You can seek the advice of your instructor, a writing tutor, or a librarian. Knowing what is and is not common knowledge is a practiced skill that gets easier with time and with your own increased knowledge.

Tip: Why You Can't Cite Wikipedia

You've likely been told at some point that you can't cite Wikipedia, or any encyclopedia for that matter, in your scholarly work.

The reason is that such entries are meant to *prepare* you to do research, not be evidence of your having done it. Wikipedia entries, which are tertiary sources, are already a summary of what is known about the topic. Someone else has already done the labor of synthesizing lots of information into a concise and quick way of learning about the topic.

So while Wikipedia is a great shortcut for getting context, background, and a quick lesson on topics that might not be familiar to you, don't quote, paraphrase, or summarize from it. Just use it to educate yourself.



Wikipedia, while good for early research and background information, shouldn't be cited as a source because it's already a summary.

Activity: To Cite or Not to Cite?

[Open activity in a web browser.](#)

10-WRITING TIPS

WHEN TO QUOTE, PARAPHRASE, OR SUMMARIZE



This section features advice for using sources well in your writing projects.

If your final product is a term paper or essay, much of your writing will be devoted to:

- Reporting what others have said about your research question.
- Convincing your audience that your answer is correct or, at least, the most reasonable answer. (Giving them evidence.)
- Describing the situation surrounding your research question for your audience and explaining why it's important.

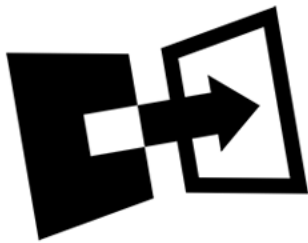
To do that writing you will often use direct quotes from your sources and will paraphrase and summarize sources. But how should you choose which technique to use when?

Tip: Citing Sources

Remember to cite your sources when quoting, paraphrasing, and summarizing. See [How to Cite Sources](#) for details.



Choose a direct quote when it is more likely to be accurate than would summarizing or paraphrasing, when what you're quoting is the text you're analyzing, when a direct quote is more concise than a summary or paraphrase would be and conciseness matters, when the author is a particular authority whose exact words would lend credence to your argument, and when the author has used particularly effective language that is just too good to pass up.



Choose to paraphrase or summarize rather than to quote directly when the meaning is more important than the particular language the author used and you don't need to use the author's preeminent authority to bolster your argument at the moment.

Choose to paraphrase instead of summarizing when you need details and specificity. Paraphrasing lets you emphasize the ideas in source materials that are most related to your term paper or essay instead of the exact language the author used. It also lets you simplify complex material, sometimes rewording to use language that is more understandable to your reader.



Choose to summarize instead of paraphrasing when you need to provide a brief overview of a larger text. Summaries let you condense the resource material to draw out particular points, omit unrelated or unimportant points, and simplify how the author conveyed his or her message.

The OSU Writing Center has more on [paraphrasing and summarizing](#), including an example of how to do one of each. While you're at this site, you'll notice other helpful information available about essays and term paper construction.

Activity: Quote, Paraphrase, or Summarize?

[Open activity in a web browser.](#)

HELPING OTHERS FOLLOW

As you switch from component to component in your paper, you'll be making what are called rhetorical moves—taking subsequent steps to move your argument along and be persuasive. Your readers will probably know what you're doing because the components in everyday oral argument are the same as in written argument. But why you're switching between components of your argument, and with these particular sources, might be less clear.

Note:

The ideas and examples in this section are informed by all three editions of Gerald Graff and Cathy Birkenstein. [They Say/I Say](#). The third edition of the *They Say/I Say* provides templates of actual language to be used in written arguments. This can be extremely helpful to beginning writers because it takes some of the mystery out of what to say and when to say it. For these templates, check the book out from your library.

You can help readers follow your argument by inserting phrases that signal why you're doing what you're doing. Here are some examples:

- **To state that what you're saying in your thesis (answer to your research question) is in opposition to what others have said:**
“Many people have believed ..., but I have a different opinion.”
- **To move from a reason to a summary of a research study that supports it (evidence).** “Now let's take a look at the supporting research.”
- **To introduce a summary of a resource you've just mentioned.**
“The point they make is...”
- **If the objection is that you're not being realistic.**
“But am I being realistic?”
- **To acknowledge an objection you believe a reader could have.**
“At this point I should turn to an objection some are likely to be raising...”
- **To move from the body of an essay to the conclusion.**
“So in conclusion...”

Phrases like these can grease the skids of your argument in your readers' minds, making it a lot easier for them to quickly get it instead of getting stuck on figuring out why you're bringing something up at a particular point. You will have pulled them into an argument conversation.

Examples: The Language of Arguments

The blog that accompanies the book *They Say/I Say with Readings*, by Gerald Graff, Cathy Birkenstein, and Russel Durst, contains short, elegantly constructed contemporary arguments from a variety of publications. Take a look at the [They Say/I Say blog](#) for a moment and read part of at least one of the readings to see how it can be helpful to you the next time you have to make a written argument.

Additional Advice Sources

Take a look at these sites for argument essay advice for students:

- [Developing Your Thesis – Dartmouth Institute for Writing & Rhetoric](#)
- [Handouts](#) – Ohio State Center for the Study and Teaching of Writing
- [Introductions, Body Paragraphs, and Conclusions for an Argument Paper](#) – Purdue Online Writing Lab (OWL)
- [Argument Handout](#) – University of North Carolina Writing Center
- [Rewriting: how to do things with texts](#) – Utah State University Press (Project Muse affiliates only)

SYNTHESIS OF YOUR OWN IDEAS

Professors want to see evidence of your own thinking in your essays and papers. Even so, it will be your thoughts in reaction to your sources:

- What parts of them do you agree with?
- What parts of them do you disagree with?
- Did they leave anything out?
- What was the author really trying to say?
- What does an author's work lead you to say?

It's wise to not only analyze—take apart for study—the sources, but also to try to combine your own ideas with ideas you found in class and in the sources.

Professors frequently expect you to interpret, make inferences, and otherwise synthesize—bring ideas together to make something new or find a new way of looking at something old. (It might help to think of synthesis as the opposite of analysis.)

Activity: Creative Thinking

Synthesis is a creative act. Are there places, things, activities, or situations that you already use to spark your creativity? Sometimes even simple things can help us be more creative. Take a look at the article [5 Ways to Spark Your Creativity](#) for some tips.

The book *Thinker Toys*, by Michael Michalko, can help you expand your ability to think creatively. The [author's web page](#) contains fun but challenging thinking exercises, including this one that lets you practice making associations between seemingly disparate concepts.

Getting Better at Synthesis

To get an A on essays and papers in many courses, such as literature and history, what you write in reaction to others' work should use synthesis to create new meaning or show a deeper understanding of what you learned.

To do so, it helps to look for connections and patterns. One way to synthesize when writing an argument essay, paper, or other project is to look for themes among your sources. So try categorizing ideas by topic rather than by resource—making associations across sources.

Synthesis can seem difficult, particularly if you are used to analyzing others' points but not used to making your own. Like most things, however, it gets easier as you get more experienced at it. So don't be hard on yourself if it seems difficult at first.

Example: Synthesis in an Argument

Imagine that you have to write an argument essay about Woody Allen's 2011 movie *Midnight in Paris*. Your topic is "nostalgia," and the movie is the only resource you can use.

In the movie, a successful young screenwriter named Gil is visiting Paris with his girlfriend and her parents, who are more politically conservative than he is. Inexplicably, every midnight he time-travels back to the 1920's Paris, a time period he's always found fascinating, especially because of the writers and painters—Hemingway, Fitzgerald, Picasso—that he's now on a first-name basis with. Gil is enchanted and always wants to stay. But every morning, he's back in real time—feeling out of sync with his girlfriend and her parents.

You've tried to come up with a narrower topic, but so far nothing seems right. Suddenly, you start paying more attention to the girlfriend's parents' dialogue about politics, which amount to such phrases as "we have to go back to..." "it was a better time," "Americans used to be able to..." and "the way it used to be."

And then it clicks with you that the girlfriend's parents are like Gil—longing for a different time, whether real or imagined. That kind of idea generation is synthesis.

You decide to write your essay to answer the research question: How is the motivation of Gil's girlfriend's parents similar to Gil's? Your thesis becomes "Despite seeming to be not very much alike, Gil and the parents are similarly motivated, and Woody Allen meant *Midnight in Paris's* message about nostalgia to be applied to all of them."

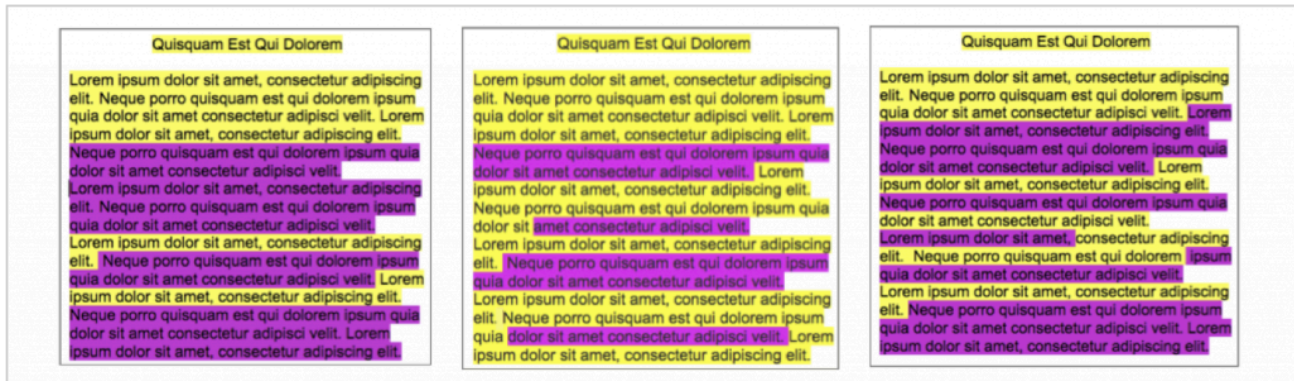
Of course, you'll have to try to convince your readers that your thesis is valid and you may or not be successful—but that's true with all theses. And your professor will be glad to see the synthesis.

There is a lot more you can learn about creating synthesis in scholarly writing. One place synthesis is usually required is in literature reviews for honors' theses, master's theses, and Ph.D. dissertations. In all those cases, literature reviews are intended to contribute more than annotated bibliographies do and to be arguments for the research conducted for the theses or dissertations. If you are writing an honors thesis, master's thesis, or Ph.D. dissertation, you will find more help here.

Activity: Balancing Sources and Synthesis

Here's a technique to quickly assess whether there is enough of your original thought in your essay or paper, as opposed to information from your sources: Highlight what you have included as quotes, paraphrases, and summaries from your sources. Next, highlight in another color what you have written yourself. Then take a look at the pages and decide whether there is enough you in them.

For the mocked-up pages below, assume that the yellow-highlighted lines were written by the writer and the pink-highlighted lines are quotes, paraphrases, and summaries she pulled from her sources. Which page most demonstrates the writer's own ideas? See the bottom of the page for the answer.



Mocked-up passages showing the division between quotes, paraphrases, and summaries and original ideas

Source: Joy McGregor. "A Visual Approach: Teaching Synthesis," *School Library Monthly*, Volume XXVII, Number 8/May-June 2011.

Answer to Activity: Balancing Sources and Synthesis

The answer to the "Balancing Sources and Synthesis" Activity above is:

The Middle Sample.

The yellow-highlighted sections in The Middle Sample show more contributions from the author than from quotes, paraphrases, and summaries of other sources.

11-COPYRIGHT BASICS

WHAT IS COPYRIGHT?



Copyright gives creators an incentive to produce and share new works by granting them exclusive rights to their work for a limited time.

Copyright is the law. While digital technology has made some aspects of copyright more complex, knowing the basics can help you to use material legally and to protect your own creative works.

You create copyrighted works regularly. When you write an original email or paper, record a song or video, or take a photograph you have created a work that is protected by copyright. It is important to know how to manage your rights as a creator.

Every day you work with copyrighted materials created by other people. Whenever you read a book, download a song, stream a video or play a video game, you are potentially dealing with copyrighted materials. It is important to understand what is and is not covered by copyright law and the ways you may use these works under the law.

Copyright Law

U.S. Copyright Law has its origin in the U.S. Constitution:

The Congress shall have the power ... to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

– U.S. Constitution Article 1, Section 8



The U.S. Congress has the power to create laws that govern copyright. (Image Source: National Archives and Records Administration. Public Domain.)

The purpose of copyright is to encourage the creation and sharing of creative works. Copyright gives creators an incentive to produce and share new works by granting them exclusive rights to their work for a limited time. This provides an opportunity for a creator to benefit from his or her work.

Congress determines the limits of this monopoly, including the length of time that copyright coverage lasts. These limits can (and have) changed over time.

WHAT COPYRIGHT COVERS

The kinds of works covered by copyright are listed in Section 102 of the Copyright Act. In order for a work to be covered by copyright, it must be an original work of authorship fixed in a tangible medium of expression. (See the detailed explanations below.)



Copyright covers original work that is fixed in a tangible medium of expression.

There are several types of works that can be protected, including:

- literary works
- musical works, including any accompanying words
- dramatic works, including any accompanying music
- pantomimes and choreography
- pictorial, graphic, and sculptural works
- motion pictures and other audiovisual works
- sound recordings
- architectural works

In addition to these, new formats such as email, software, video games, and digital works including web pages and online images have all been determined to be covered by copyright protection.

Definition: Original Work of Authorship

In copyright law, originality means that a work should have at least a minimum amount of creativity. For example, an alphabetized list of names and phone numbers would not receive copyright protection because it required no creativity to produce.

Definition: Tangible Medium of Expression

For a work to be “fixed in a tangible medium,” it must exist in some perceptible format for more than a transitory duration. For example, a work that is fixed in a tangible medium could be written on paper, saved to a computer hard drive, or recorded on film. An improvised jazz performance that is not recorded would not have copyright protection, because the creative expression of the musician has not been saved in any tangible format.

What ISN'T Covered by Copyright?

Not all works are covered by copyright. Those not covered include:

Works already in the public domain (discussed in detail later in this book)

- *Moby Dick*
- Shakespeare's plays
- Beethoven's works

Works not fixed in a tangible medium

- A song in your head, but not recorded or written down

Ideas

- Boy meets girl, they fall in love and live happily ever after
- Hero protagonist saves the world with the help of wacky sidekick

Facts

- $1+1=2$
- George IV died in 1830
- Copenhagen is the capital of Denmark

Works of the U.S. Government produced by government employees

- Federal government reports
 - Acts/Bills of Congress
 - www.whitehouse.gov
-

Copyright in Cases of a Work Made for Hire

If you create something as part of your job duties, it is likely a work made for hire. In these cases, the employer is considered the author and rights holder of a work made for hire rather than the employee.

Read the United States Copyright Office's [Works Made for Hire](#) circular for a more nuanced discussion.

Activity: Copyrightable?

[Open activity in a web browser.](#)

RIGHTS GRANTED BY COPYRIGHT

So, now that you know what kinds of works are covered by copyright, what exactly are the rights granted to a copyright holder?

Five exclusive rights are granted to the creator of a copyrighted work. We call these the Author's Bundle of Rights. This means the copyright holder is the only person who has the right to do these things and has the authority to grant permission for others to do these things.

If you are not the copyright holder and want to do any of the activities on the right, you may need to get permission to do so from the holder of the copyright.

Author's Bundle of Rights

To Reproduce

- Example: Making physical and digital copies
-

To Prepare Derivative Works

- Example: Creating foreign language translations, movie adaptation of a book, etc.
-

To Distribute

- Example: Sharing over Peer-to-Peer networks or posting online, as well as distributing physical copies.
-

To Display Publicly

- Example: Displaying in a gallery, putting posters on a noticeboard, etc.
-

To Perform Publicly a sound recording by means of a digital audio transmission

- Example: Streaming recording music online.

Activity: Author Rights

[Open activity in a web browser.](#)

When Does Copyright Apply?

Under current U.S. law, copyright applies as soon as an original work is fixed in a tangible medium of expression. This means that when you save a file, take a photograph, record a song, or paint a picture your work has copyright protection.

As the creator, provided that the work is not a work made for hire, you are the owner of the copyright on your work. You do not have to register the work with the U.S. Copyright Office, publish it, or put a copyright notice on it.

If you wish to give away, sell or license any or all of the copyright on your work, you have the right to do so.

If you give away or sell your exclusive copyright to someone else, you no longer have the rights mentioned above and need to treat the work the same as any other copyrighted work created by someone else.

See Public Domain and Term of Copyright later in this section for details about the duration of copyright.

RESPECTING COPYRIGHT

While working with other people's copyrighted works, remember that their works are under copyright protection from the moment of creation.

Additionally, U.S. Copyright Law applies to works found on the Internet. Many of the works you find online are protected by copyright, even if there is no copyright notice. The availability of and the ability to access copyrighted materials on the Internet does not mean that those works are in the public domain, and thus free to use, reuse and distribute in any manner you wish. It is important to respect copyright, whether the works are in a physical or digital format.

Risks of Infringing Copyright

If you infringe upon one or more of the exclusive rights, the copyright owner can bring a claim against you for copyright infringement. There are a few different penalties that are possible if you are accused of copyright infringement:

- Under specific circumstances, U.S. copyright law allows criminal prosecution in cases of willful infringement.
- If the infringing work is online, such as a video posted to YouTube, the copyright owner can send a takedown notice. The material will be taken down and you will be notified of the accusation of infringement. If you believe that your use of the material is legal, you can respond with your explanation of why. Some Internet Service Providers will cut off your access if you receive too many takedown notices.
- The copyright owner can sue you. They could ask for an injunction to stop your use of their work. They can also ask for either actual damages or statutory damages. Actual damages are the actual amount of money the copyright owner lost due to your activity plus any profit you made from using the work. These can be hard to determine, so the law also allows for statutory damages. These are a set range, from \$750 to \$30,000 per infringed work, that the judge or jury awards to the rights holder if you are found guilty. These damages can increase to \$150,000 per infringed work if your use is determined to be "willful" infringement.
- Some rights holders will offer the option of settling out of court for a few thousand dollars. This is cheaper than the cost of a trial for the rights holder and you.

The accusation of infringement is not the same as a conviction. You always have the right to defend your use.

EXCEPTIONS TO COPYRIGHT

U.S. Copyright Law includes exceptions that limit the rights of the copyright holder. These exceptions allow for certain uses of copyrighted material without seeking permission. Congress created these exceptions in order to balance the rights of creators and users and to enable some socially beneficial uses of copyrighted works.

Some of these exceptions are explained below.

Fair Use

Fair Use (Sec. 107) allows for various uses of copyrighted works. This is the most flexible of the exceptions in the copyright law and can apply in a wide variety of situations.

To learn more check out our section on [Fair Use](#).

Reproduction for Libraries

[Section 108 of the Copyright Act](#) allows libraries and archives to make copies of copyrighted works under very specific conditions. For example, a patron can ask the library to make a copy of a journal article or portion of a book in the library's collection as long as it is for the patron's personal study.

First Sale Doctrine

The first sale doctrine (Sec. 109) allows you to distribute a legally acquired physical copy of a copyrighted work. This allows libraries to lend books and individuals to lend or sell used books, movies or CDs.

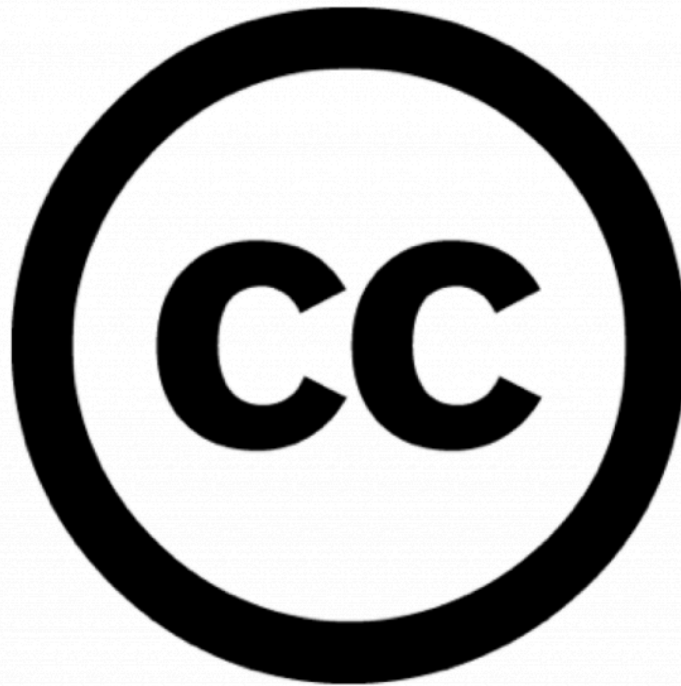
Classroom Display or Performance

Under Section 110(1) it is okay to display or perform copyrighted works in a face-to-face classroom setting at a non-profit educational institution. This allows a teacher to show a video or students to create and display multimedia projects in class. Section 110(2) allows for the display or performance of copyrighted works for distance learning (e.g. on a course management system), but you must fulfill many specific requirements in order to qualify for this exception.

CREATIVE COMMONS – AN ALTERNATIVE

The internet has made the creation and sharing of creative works much easier than it has ever been. Most of these new works are protected by copyright as soon as they are created. But not everyone wants to lock up their creativity behind the protection of copyright. Many people want their work to be freely shared and even built upon.

[Creative Commons](#) (CC) was developed out of the desire to make it easier to share and use copyrighted works. Creative Commons allows a creator to grant licenses to their work that could include the ability to share, adapt and/or use material for commercial purposes without having to ask for permission. The creators still own the copyright, but they proactively decide to let others use their works under certain conditions.



Creative Commons allows a creator to grant licenses to their work without requiring they grant individual permission.

Movie: Get Creative

The origin and adventures of the creative commons licensing project.

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=204>

[View video](#)

Activity: Finding Creative Commons Works

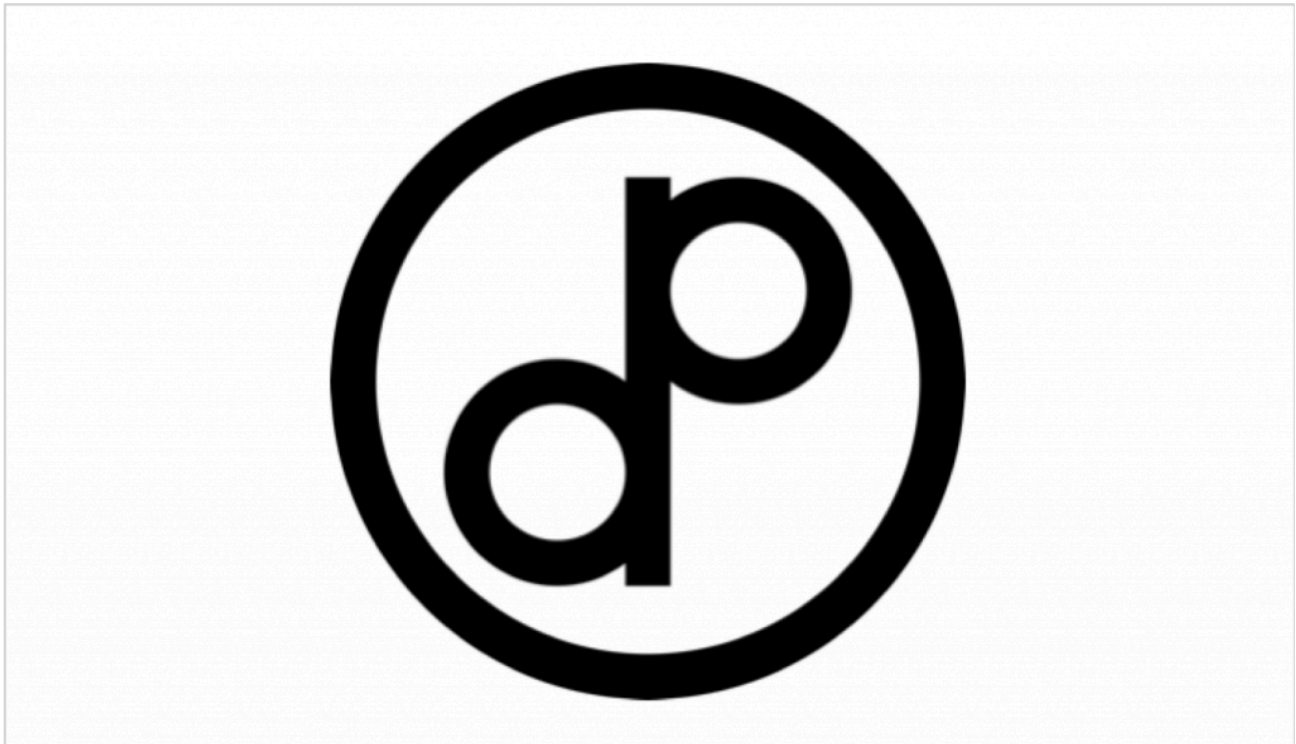
Many websites include CC licensed works. You can search them to find materials that you can freely use in creating your own work provided that you comply with the terms of the license. You can also upload your own CC licensed works to share with others.

Examples include:

- [Flickr](#)
- [YouTube](#)
- [The Noun Project](#)
- [Wikipedia's Wikimedia Commons](#)

PUBLIC DOMAIN AND TERM OF COPYRIGHT

Copyright protection of a work doesn't last forever. Once the copyright term ends for a work, it enters the public domain. This means that no one owns the rights to the work anymore, so the work may be used by anyone, for any purpose, without permission. The public domain includes works where copyright has expired and works that were never protected by copyright in the first place (such as works of the U.S. federal government created by federal employees).



The public domain includes works where copyright has expired and works that were never protected by copyright.

Activity: Finding Works in the Public Domain

The public domain provides a great source of materials that you can use for any purpose, without requesting permission or paying a fee. The internet is full of useful sites that can help you find Public Domain materials, including:

- [Columbia University list of Public Domain Sources](#)
- [HathiTrust](#)

- [Internet Archive](#)
 - [Project Gutenberg](#)
-

When Does a Work Enter The Public Domain?

Due to U.S. participation in international treaties and changes to U.S. copyright law, Congress has placed a limitation on the length of copyright so that works can eventually become part of the public domain and be re-used and built upon by others. Over the years the term of copyright has changed significantly.

The current term is:

- 70 years after death of author. If there are multiple authors, then it is 70 years after the death of the last author.
 - If corporate, or anonymous, authorship the term is either 95 years from date of first publication, or 120 years from the date of creation, whichever comes first.
-

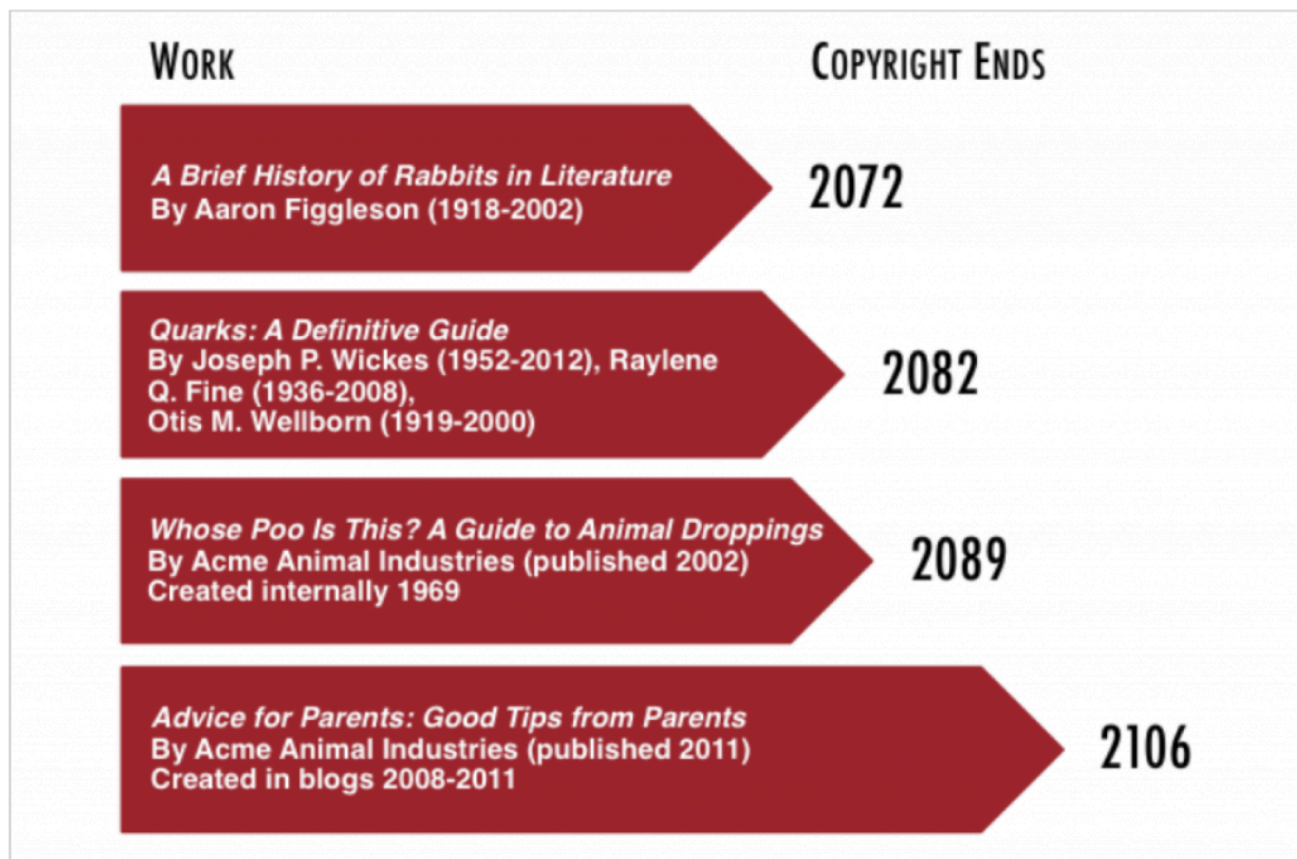
Term of Copyright

Since the duration of copyright has changed throughout the years, it can be difficult to determine when copyright expires for a particular work. Below are links to a couple of online sources to help you determine when a particular work enters the public domain.

- [Copyright Term and the Public Domain in the United States](#)
- [ALA Copyright Genie](#)

Examples: Copyright Duration

The duration of copyright depends on when the work was created and whether it was the work of a single author, multiple authors, or an anonymous or corporate author.



Copyright terms are based on factors such as the date of death of the author and on what laws were in effect when a work was created.

- *A Brief History of Rabbits in Literature* by Aaron Figgleson (1918-2002):
Copyright ends 2072 – 70 years after the author's death
- *Quarks: A Definitive Guide* by Joseph P. Wickes (1952-2012, Raylene O. Fine (1936-2008), and Otis M. Wellborn (1919-2000):
Copyright ends 2082 – 70 years after the death of the last author to die
- *Whose Poo Is This? A Guide to Animal Droppings* by Acme Animal Industries (published 2002) – Created internally 1969:
Copyright ends 2089 – 120 years from the date of creation
- *Advice for Parents: Good Tips from Parents* by Acme Animal Industries (published 2011) – Created in blogs 2008-2011:
Copyright ends 2106 – 95 years from the date of first publication

12-FAIR USE

WHAT IS FAIR USE?



Fair Use is an exception to U.S. copyright law that allows use of copyrighted work under certain conditions.

Are you incorporating any materials in your research final product that were created by someone else, such as images or text from other works? These materials could be protected by copyright. For example, content you find online, text, books, movies, songs, email, images, and videos are most likely copyrighted. Fortunately, U.S. copyright law includes an exception that allows you to use copyrighted work in your assignments for class.

However, if you would like to share your research product outside of the classroom (such as on a webpage or blog or in your portfolio), you will need permission from the copyright owner(s) unless your use is covered under another statutory exception. Fair use is one such exception, and it can apply to a wide variety of uses.

Note: Fair Use and Educational Use

Fair Use plays an important role in education. Although educational use receives several protections in copyright law, not all educational use is automatically fair use. It's important to know that there are limits to how you can use others' creative works even as a student or teacher in the classroom.

In this section, you will learn about fair use and strategies to help determine whether or not a proposed use of someone else's copyrighted works falls under the fair use exception. Understanding how to properly perform a fair use analysis and assert your fair use rights can help you to build upon others' works with confidence.

Fair Use and Copyright – A Balance

Copyright in the U.S. is intended to promote the creation of new works by providing an incentive for creators. However, recognizing that new works often build on or incorporate existing works, the law strikes a balance between the rights of creators and the rights of users via exceptions to the exclusive rights of the creator.

The fair use exception is detailed in Section 107 of the U.S. Copyright Act. Unlike other copyright exceptions, fair use is flexible and can apply to a broad array of uses. It is designed to be adaptable to new uses and technologies so that Congress doesn't have to create new exceptions before a new technology can be utilized.

Movie: What Is Fair Use?

Watch a short introduction to fair use from the OSU Libraries' [Copyright Resources Center](#).

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/eslchoosingsources/?p=212>

[View video](#)

THE FOUR FACTORS

Most of the copyright exceptions are very specific about what kinds of uses may qualify for the exception and often include various restrictions about who can use the exception and under what precise conditions.

Fair use, on the other hand, is much more flexible and can apply to a wide variety of uses. Instead of specifying an exact type of user, type of material or amount that qualifies for this exception, the fair use statute provides a framework for the analysis and application of four factors that determine whether or not a particular use may qualify as fair use.

The four factors of fair use are:

- Purpose & character of use, including whether commercial (i.e. publishing a book) or non-commercial (i.e. using in a classroom assignment)
- Nature of the original material (i.e., is the work published or unpublished? Fact or fiction? Highly creative?)
- Amount and substantiality of the original work (are you using the entire work or just a portion?)
- Effect on the marketplace or on the work's value (will your use have a financial impact on the creator?)

When considering whether a proposed use of a copyrighted work may qualify as fair use, you must weigh all four factors together. Each factor is equally important.

Transformation

The courts have recently emphasized the concept of transformation or a transformative purpose, which falls under the first factor of fair use.

Transformation means that the way in which the work is being used is significantly different than the original use for which it was created.

In many cases a transformative use of a copyrighted work will strongly favor a determination of fair use.

There are two ways in which a use can be transformative.

First, you could actually make changes to the original work in order to use it for a new purpose. An example would be to take short clips of popular movies and remix them to create a video for the purpose of social commentary or teaching.

The second form of transformative use does not require that you alter the original work in any way. Instead, you simply use the work for a purpose that is significantly different than the use for which it was created. An example of this would be using clips from a blockbuster movie that was originally sold for mass market entertainment for the purpose of teaching and research.

Movie: Remix Culture

See examples of remixing that fall under fair use.

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EVALUATING YOUR CASE FOR FAIR USE

Copyright law lacks specificity, so it can be difficult to determine whether or not a particular use may qualify as fair use. Fortunately, there are a number of useful tools available online to help you consider the four fair use factors as they apply to your intended use.

A [Fair Use Checklist](#) can be very helpful for conducting a fair use analysis. The checklist indicates various criteria for each factor which have been found in a court of law to favor or oppose a finding of fair use. It is highly recommended that you use a fair use checklist to evaluate the strength of your argument for fair use.

Movie: Follow the Four Factors of Fair Use

Watch this video to see a fair use analysis using a fair use checklist.

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In a fair use analysis, you consider each of the four factors in light of your proposed use and determine whether your use is favoring or opposing fair use for that factor.

You then weigh all four factors together. You cannot rely on a numerical tallying of criteria in favor and opposing fair use in order to make a determination. You must consider all four factors holistically and determine if, taken as a whole, they favor or oppose fair use, and to what extent (e.g. strongly favoring fair use, slightly favoring, etc.).

- If, overall, your use favors fair use, then you may proceed.
- If your use instead opposes fair use, you should reassess your use and determine if you can make any changes that could strengthen your case for fair use.

There are other tools in addition to the checklist that can help you conduct a fair use analysis. The American Library Association has developed a tool called the [Fair Use Evaluator](#).

Activity: Fair Use Criteria

Visit the [Fair Use Checklist](#) and review the criteria for each of the four factors.

Activity: Fair Use or Not Fair Use?

[Open activity in a web browser.](#)

Tips for Best Practice

While it is important to perform a fair use evaluation for each and every use of copyrighted material, there are some general rules that can often help you to strengthen a fair use claim.

Below are a few tips to consider when relying on the fair use exception in order to use copyrighted works in your endeavors.

- **Use only lawfully acquired copyrighted works** – To be able to claim fair use you must have used a legal copy of the original work.
- **Acknowledge all of your sources with a bibliographic citation** – Giving proper credit to the original creator demonstrates good faith and may help strengthen your fair use case.
- **Use only the amount of the original work that you need to accomplish your goal** – Since the amount of the original work that is used is one of the fair use factors, it is always important to only use what you need and not add extra material.
- **Restrict the audience and/or make only the number of copies that you need** – The less you copy and share the parts of the original work, the less effect you have on the market for it.
- **Use Creative Commons licensed or public domain works** – If you use works that expressly allow you to use them or have no copyright protection, you do not need to rely on fair use and can be more confident that your use is legal.
- **Use works that you created** – If you created it, you own the copyright, with the exception of works made for hire. (When you create things for your job, typically your employer owns the copyright.)

If you are in doubt about your fair use claim, either reassess and make changes to your proposed use in order to make a stronger claim or ask for permission to use the copyrighted material – It is much easier to make changes or ask for permission before you use copyrighted material than to get hit with an infringement claim and have to make changes or face a law suit after your use.

Further Reading on Fair Use

A number of groups have developed Codes of Best Practices in Fair Use for different types of activities. These codes propose examples of fair use within specific communities of practice. Below are links to some of these Codes of Best Practices.

- [Code of Best Practices in Fair Use for Online Video](#)
- [Code of Best Practices in Fair Use for Poetry](#)
- [Code of Best Practices in Fair Use for OpenCourseWare](#)
- [Documentary Filmmakers' Statement of Best Practices in Fair Use](#)
- [Association of Research Libraries Codes of Best Practices in Fair Use for Academic and Research Libraries](#)

COMMON EXAMPLES OF FAIR USE

Students and teachers rely on fair use in order to accomplish many of their educational goals. Below are some, but by no means all, educational activities that rely upon fair use.

Student Projects

Includes both media and text.

Your fair use analysis will change depending on how the project is presented, i.e. only the professor sees it, you present it to the whole class, you present it to a group outside of the class, or you post it online for anyone to see.

Course Reserves

Includes electronic reserves.

Instructors may copy or post small portions of books or journals for supplementary student readings, but cannot copy entire copyrighted works as a replacement for materials that students would normally be required to purchase.

Sound or Video Clips for Teaching

Students and teachers can make use of video or sound clips in creating multi-media presentations for use in the classroom.

Digitization Projects

Many university libraries rely on fair use in order to create large scale digitization projects that preserve older materials, as well as providing improved access to their collections for the purpose of research. For an example of this type of digitization project check out the [HathiTrust Digital Library](#).

Content in Scholarly Articles

It is common to quote other researchers' writings or use others' images, graphs or charts in your own scholarly writing. These practices have long been considered acceptable under fair use.

Access for the Disabled

When specific exemptions don't fit.

While there are specific exceptions that allow for making copies of copyrighted works in order to provide access to the visually handicapped, they are sometimes too narrow to provide complete access. In these cases it is possible to rely upon fair use in order to provide access to materials.

Fair Use for Non-Educational Purposes

Fair use is not only available for educational purposes. Many other commercial and non-commercial activities depend upon fair use. Some of these common fair uses include:

- Quotes in books, news reports and blogs
- Mash-ups and remixes
- Parody, such as on television shows like South Park or Saturday Night Live
- Video or sound clips in documentary films
- Thumbnail images on search engines

Movie: Sesame Street: Gone With the Wind

Check out this parody from Sesame Street.

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Myths about Fair Use

Many people have heard of fair use and have some ideas about what it is. Unfortunately, there are many myths or misunderstandings about exactly what fair use covers, what the law states or how it can be applied. Below we dispel just a few of the most common myths about fair use.

Myth 1: All educational use is fair use.

Fact: While many educational uses are considered fair use, there are some activities that do not meet the fair use criteria. For example, a teacher can't make copies of an entire text book so that students don't have to buy it.

Myth 2: Every educational use is transformative.

Fact: Using copyrighted works for teaching can often be a transformative use, but not always. For example, using a text book created to teach Biology 101 to teach Biology 101 is not transformative.

Myth 3: All socially beneficial use is fair use.

Fact: Fair use is designed to help balance the rights of the creator and the social benefit of using copyrighted works in certain ways. Not all uses of copyrighted works that would be socially beneficial,

however, qualify as fair use. For example, scanning and posting an entire medical text book online for anyone to access for free is socially beneficial but probably not fair use.

Myth 4: All commercial use precludes fair use.

Fact: Many commercial activities, such as newspapers and online news sites, rely heavily on fair use.

Myth 5: It is not possible to have a fair use when a permissions scheme exists for a work.

Fact: Just because rights holders are willing to charge you to use their copyrighted material, does not mean that fair use cannot apply. For example, the Associated Press created a licensing scheme to quote from AP stories but quoting from news stories has long been considered fair use.

Myth 6: Fair use specifies a percentage or amount of a work that is okay to use.

Fact: The law does not state that using 10% of a book or 30 seconds of a song or video clip is fair use. You can often use more than these arbitrary limits, while sometimes using even less might not be fair use. The amount of the original work used is only one of the four factors to consider.

CREDITS

The content of this book was edited by Cheryl Meredith Lowry. The visual design and layout are by Robyn Ness. Contact us at choosingsources@osu.edu. It was adapted for use for English language learners (ESL Composition Program) by Karen Macbeth.

Much of its content originated from a series of tutorials, called net.TUTOR, by Ohio State University Libraries. These people contributed significantly to net.TUTOR's content:

- Shannon Baird
 - Leila Ben-Nasr
 - Beth Black
 - Karen Diaz
 - Danny Dotson
 - Sandra Enimil
 - Deborah Kuzawa
 - Brian Leaf
 - Cheryl Lowry
 - Tingting Lu
 - Anastasia Nurre
 - Nancy O'Hanlon
 - Amy Pickenpaugh
 - Diana Ramey
 - Melanie Schlosser
 - Yih Yee Wong
-

Credits

College Writing

Ballard, B., & Clanchy, J. (1997). *Teaching international students: A brief guide for lecturers and supervisors*. Deakin, Australia: Education Australia.

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<https://www.wightco.com/projects/elementary-school-building>
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Sample Writing Assignments

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