

articles you find, where full bibliographic information on the source may be found. A search for *fracking* resulted in this source:

The screenshot shows a web browser window displaying a search results page from University Libraries. The search term is "AU (attn. Kallin)". The results list one article titled "Belief superiority in the environmental domain: Attitude extremity and reactions to fracking". The article is by Naomi Kallin Tanaka and Mark A. Levy, from Yonsei University, USA. It was published in the Journal of Environmental Psychology in December 2014. The abstract discusses how belief superiority is linked to attitude extremity and reactions to fracking. The page includes a sidebar with navigation options like "QuickSearch", "eJournals", and "Ask-A-Librarian". There are also links to "Related Information" and "Find Similar Results using SmartFeed Searching". At the bottom, there are buttons for "Google Book Preview" and "Goodreads - User Reviews".

Search: QuickSearch
Keyword: AU (attn. Kallin)
Basic Search Advanced Search Search History

Belief superiority in the environmental domain: Attitude extremity and reactions to fracking

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Source: Journal of Environmental Psychology December 2014 40:76-85

Publisher: Elsevier Inc. Pub. Ltd.

Abstract: This study examined belief superiority – the belief that one's own beliefs are more correct than other viewpoints – in the domain of environmental and energy issues. Flipping research in other domains, attitude extremity on even energy issues was associated with belief superiority about those viewpoints. Consequences of belief superiority were also tested: participants read an article that either confirmed or contradicted their position on hydraulic fracturing ("fracking"). People high in belief superiority rated the article's author more harshly when he advocated fracking ("fracking"). People high in belief superiority rated the article's author more harshly when he disagreed with them. However, these participants were also more willing than those low in belief superiority to discuss and work on fracking issues. Those high in belief superiority thought they were better educated about energy than others, and their certainty about their beliefs tended to suppress anger toward the article, even when the article contradicted those beliefs. Implications for belief superiority to energy education and environmental campaigns are discussed.

*Extremity of energy attitudes is tied to feelings of superiority about those beliefs. Belief superiority about fracking attitudes is associated with derogation of opponents. Fracking belief superiority predicts flaming reaction to persuasion attempts. People higher in belief superiority are more willing to discuss fracking, even with opponents.

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Database: ScienceDirect

Google Book Preview
Goodreads - User Reviews

Note the list of author-supplied keywords, which offers options for narrowing and focusing your topic. Each keyword is a link, so simply clicking on it will produce a new list of sources.

Advanced keyword searching. Most search sites have "advanced search" options that will help you focus your research. Some allow you to ask



questions in conversational language: *What did Thomas Jefferson write about slavery?* Others allow you to focus your search by using specific words or symbols. Here are some of the most common ones:

- Type quotation marks around words to search for an exact phrase—"Thomas Jefferson."
- Type AND to specify that more than one keyword must appear in sources: Jefferson AND Adams. Some search engines require a plus sign instead: +Jefferson +Adams.
- Type OR if you're looking for sources that include any of several terms: Jefferson OR Adams OR Madison.
- Type NOT to find sources without a certain word: Jefferson NOT Adams. Some search engines call for a minus sign (actually, a hyphen) instead: +Jefferson -Adams.
- Type an asterisk to search for words in different form. For example, teach* will yield sources containing *teacher* and *teaching*.

Reference Works

The reference section of your school's library is the place to find encyclopedias, dictionaries, atlases, almanacs, bibliographies, and other reference works in print. Many of these sources are also online and can be accessed from any computer that is connected to the internet. Others are available only in the library. Remember, though, that whether in print or online, reference works are only a starting point, a place where you can get an overview of your topic.

General reference works. Consult encyclopedias for general background information on a subject, dictionaries for definitions of words, atlases for maps and geographic data, and almanacs for statistics and other data on current events. These are some works you might consult:



academic
literacies



rhetorical
situations



genres



fields



processes



strategies



research
MLA / APA



media /
design



readings

The New Encyclopaedia Britannica

The Columbia Encyclopedia

Webster's Third New International Dictionary

Oxford English Dictionary

National Geographic Atlas of the World

Statistical Abstract of the United States

The World Almanac and Book of Facts

Caution: Wikipedia is a popular online research tool, but since anyone can edit its entries, you can't be certain of its accuracy. Use it for general overviews, but look elsewhere—including Wikipedia's own references and citations—for authoritative sources.

Specialized reference works. You can also go to specialized reference works, which provide in-depth information on a single field or topic. These may also include authoritative bibliographies, leading you to more specific works. A reference librarian can refer you to specialized encyclopedias in particular fields, but good places to start are online collections of many topic-specific reference works that offer overviews of a topic, place it in a larger context, and sometimes provide links to potential academic sources. Collections that are available through libraries include the following:

CQ Researcher offers in-depth reports on topics in education, health, the environment, criminal justice, international affairs, technology, the economy, and social trends. Each report gives an overview of a particular topic, outlines of the differing positions on it, and a bibliography of resources on it.

Gale Virtual Reference Library (GVRL) offers thousands of full-text specialized encyclopedias, almanacs, articles, and ebooks.

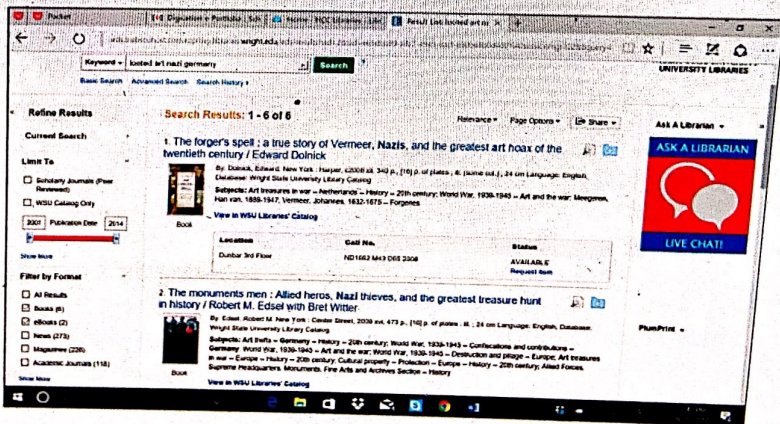
Oxford Reference contains hundreds of dictionaries, encyclopedias, and other reference works on a wide variety of subjects, as well as timelines with links to each item mentioned on each timeline.

SAGE Knowledge includes many encyclopedias and handbooks on topics in the social sciences.

Bibliographies. Bibliographies provide an overview of what has been published on a topic, listing published works along with the information you'll need to find each work. Some are annotated with brief summaries of each work's contents. You'll find bibliographies at the end of scholarly articles and books, and you can also find book-length bibliographies, both in the reference section of your library and online. Check with a reference librarian for bibliographies on your research topic.

Books / Searching the Library Catalog

The library catalog is your primary source for finding books. Almost all library catalogs are computerized and can be accessed through the library's website. You can search by author, title, subject, or keyword. The image below shows the result of a keyword search for material on looted art in Nazi Germany. This search of the library's catalog revealed six items—print books and ebooks—on the topic; to access information on each one, the researcher must simply click on the title or thumbnail image. The image on the next page shows detailed information for one source: bibliographic data about author, title, and publication;



related subject headings (which may lead to other useful materials in the library)—and more. Library catalogs also supply a call number, which identifies the book's location on the library's shelves.

The screenshot shows a web browser window displaying the Wright State University library catalog. The page has a green header with the university name and navigation links. Below the header is a search bar with the record number 63161883 entered. The book details are as follows:

Field	Value
Title	The monuments men: Allied heroes, Nazi thieves, and the greatest treasure hunt in history / Robert M. Edsel with Bret Witter
Author	Edsel, Robert M.
Publish Info	New York : Center Street, 2009
Edition	1st ed.
Permalink Link	http://worldcat.wright.edu:80/ocw/ark:/61902/3Q:67897-92
Location	Dunbar 3rd Floor
Call no.	DS16.A7 E33 2009
Status	AVAILABLE

Additional details include a description of the book as a previously untold story of a little-known WWII Allied division whose mission was to track down European art and treasures that had been looted by the Nazis, and a note about bibliographical references. A 'Request' button is visible on the right side of the page.

Ebooks / Finding Books Online

Many books in the library catalog are available online. Some may be downloaded to a tablet or mobile device. In addition, thousands of classic works that are in the public domain—no longer protected by copyright—may be read online. *Bartleby*, *Google Books*, *Open Library*, and *Project Gutenberg* are four collections of public-domain works. Here are some other sources of ebooks:

Hathi Trust Digital Library offers access to millions of ebooks, about a third of them in the public domain, contributed by university libraries.

Internet Archive includes millions of ebooks as well as audio, video, music, software, images, and the Way Back Machine, which archives historical webpages.

The Gale Virtual Reference Library (GVRL), *Oxford Reference*, and *SAGE Knowledge* all contain large ebook collections.

Periodicals / Searching Indexes and Databases

To find journal, magazine, and newspaper articles, you will need to search periodical indexes and databases. Indexes provide listings of articles organized by topics; many databases provide the full texts. Some indexes are in print and can be found in the reference section of the library; most are online. Some databases are available for free; most of the more authoritative ones, however, are available only by subscription and so must be accessed through a library.

Many databases now include not only scholarly articles but also dissertations, theses, book chapters, book reviews, and conference proceedings. Dissertations and theses are formal works of scholarship done as requirements for graduate degrees; book reviews offer critical evaluations of scholarly and popular books; and conference proceedings are papers presented, usually orally, at scholarly meetings.

When you access a source through a database, the URL or link address is different each time you log in, so if you want to return to a source, look for a *stable URL*, *permalink*, or *document URL* option and choose it to copy and paste into your list of sources.

General indexes and databases. A reference librarian can help you determine which databases will be most helpful to you, but here are some useful ones:

Academic Search Complete and *Academic Search Premier* are multidisciplinary indexes and databases containing the full text of articles in thousands of journals and indexing of even more, with abstracts of their articles.

FirstSearch offers access to millions of full-text, full-image articles in dozens of databases covering many disciplines.

InfoTrac offers millions of full-text articles in a broad spectrum of disciplines and on a wide variety of topics from thousands of scholarly and popular periodicals, including the *New York Times*.

JSTOR archives scanned copies of entire publication runs of scholarly journals in many disciplines, but it may not include current issues of the journals.



LexisNexis contains full-text publications and articles from a large number of newspapers and business and legal resources.

ProQuest Central provides access to full-text articles from thousands of books, scholarly journals, conference papers, magazines, newspapers, blogs, podcasts, and websites and a large collection of dissertations and theses.

Single-subject indexes and databases. The following are just a sample of what's available; check with a reference librarian for indexes and databases in the subject you're researching.

America: History and Life indexes scholarly literature on the history and culture of the United States and Canada.

BIOSIS Previews provides abstracts and indexes for thousands of sources on a wide variety of biological and medical topics.

ERIC is the U.S. Department of Education's Educational Resource Information Center database. It includes hundreds of journal titles as well as conference papers, technical reports, and other resources on education.

Historical Abstracts includes abstracts of articles on the history of the world, excluding the United States and Canada, since 1450.

Humanities International Index contains bibliographic references to more than 2,200 journals dealing with the humanities.

MLA International Bibliography indexes scholarly articles on modern languages, literature, folklore, and linguistics.

PsycINFO indexes scholarly literature in a number of disciplines relating to the behavioral and social sciences.

PubMed includes millions of citations for biomedical literature, many with links to full-text content.

Print indexes. You may need to consult print indexes to find articles published before the 1980s. Here are six useful ones:

The Readers' Guide to Periodical Literature (print, 1900–; online, 1983–)

InfoTrac Magazine Index (print, 1988–; online, 1973–)

The New York Times Index (print and online, 1851–)

Humanities Index (print, 1974–; online, 1984–)

Social Sciences Index (print, 1974–; online, 1983–)

General Science Index (print, 1978–; online, 1984–)

Images, Sound, and More

Your library likely subscribes to various databases that allow you to find and download video, audio, and image files. Here is a sampling:

AP Images provides access to photographs taken for the Associated Press, the cooperative agency of thousands of newspapers and radio and television stations worldwide.

ArtStor provides images in the arts, architecture, humanities, and sciences.

Dance in Video offers hundreds of videos of dance productions and documentaries on dance.

Education in Video includes thousands of videos of teaching demonstrations, lectures, documentaries, and footage of students and teachers in their classrooms.

Naxos Music Library contains more than 130,000 classical, jazz, and world music recordings, as well as libretti and synopses of hundreds of operas and other background information.

Theatre in Video provides videos of hundreds of performances of plays and film documentaries.

The following indexes and databases are freely available on the internet:

The WWW Virtual Library is a catalog of websites on a wide range of subjects, compiled by volunteers with expertise in particular subject areas.

CSA Discovery Guides provide comprehensive information on current issues in the arts and humanities, natural sciences, social sciences, and technology, with an overview of each subject, key citations with abstracts, and links to websites.

Voice of the Shuttle, or *VoS*, offers information on subjects in the humanities, arranged to mirror "the way the humanities are organized for research and teaching as well as the way they are adapting to social, cultural, and technological changes."

The Library of Congress offers online access to information on a wide range of subjects, including academic subjects, as well as prints, photographs, and government documents.

JURIST is a university-based online gateway to authoritative legal instruction, information, scholarship, and news.

Searching the Web

The web provides access to countless sites containing information posted by governments, educational institutions, organizations, businesses, and individuals. Such websites are different from other sources—including the kinds of online sources you access through indexes and databases—in two key ways: (1) their content varies greatly in its reliability and (2) they are not stable, which means that what you see on a site today may be different (or gone) tomorrow. Anyone who wants to can post material on the web, so you need to evaluate carefully what you find there to eliminate sources that are not current, lack credibility, or are primarily advertisements or promotional in nature.

Because it is so vast and dynamic, finding what you need on the web for academic writing can be a challenge. The primary way of finding information on the web is with a search site. You may find the most suitable results for academic writing by using *Google Scholar*, a search site that finds scholarly literature, including peer-reviewed papers, technical reports, and abstracts. Here are other ways of searching the web:

- **Keyword searches.** Google, Yahoo!, Microsoft Edge, and most other search sites all scan the web looking for keywords that you specify.
- **Subject directories.** Google, Yahoo!, and some other search sites offer directories that arrange information by topics, much like a library cataloging system. Such directories allow you to broaden or narrow your search if you need to—for example, a search for “birds” can be broadened to “animals” or narrowed to “blue-footed booby.”
- **Metasearches.** Yippy, Dogpile, and ZapMeta are metasearch sites that allow you to use several search engines simultaneously. They are best for searching broadly; use a single search site for the most precise results.
- **Twitter searches.** In addition to Twitter Search, you can find Twitter content through search sites such as Social Mention and Keyhole.

Each search site and metasearch site has its own protocols for searching; most have an “advanced search” option that will help you search more productively. Remember, though, that you need to be careful about **EVALUATING SOURCES** that you find on the web because the web is unregulated and no one independently verifies the information posted on its sites.



Doing Field Research

Sometimes you'll need to do your own research, to go beyond the information you find in published sources and gather data by doing field research. Three kinds of field research you might want to consider are interviews, observations, and questionnaires.

Interviewing experts. Some kinds of writing—a profile of a living person, for instance—almost require that you conduct an interview. And sometimes you may just need to find information that you haven't been able to find in published sources. To get firsthand information on the experience of serving as a soldier in Afghanistan, you might interview your cousin who served a tour of duty there; to find current research on pesticide residues in food, you might need to interview a toxicologist. Whatever your goal, you can conduct interviews in person, using video-calling software such as Skype or FaceTime, by telephone, through email, or by mail. In general, you will want to use interviews to find information you can't find elsewhere. Below is some advice on planning and conducting an interview.

Before the interview

1. Once you identify someone you want to interview, email or phone to ask the person, stating your **PURPOSE** for the interview and what you hope to learn.
2. Once you've set up an appointment, send a note or email confirming the time and place. If you wish to record the interview, be sure to ask for permission to do so. If you plan to conduct the interview by mail or email, state when you will send your questions.
3. Write out questions. Plan questions that invite extended response and supporting details: "What accounts for the recent spike in gasoline prices?" forces an explanation, whereas "Is the recent spike in gas prices a direct result of global politics?" is likely to elicit only a yes or a no.

At the interview

4. Record the full name of the person you interview, along with the date, time, and place of the interview; you'll need this information to cite and document the interview accurately.



5. Take notes, even if you are recording the interview.
6. Keep track of time: don't take more than you agreed to beforehand unless both of you agree to keep talking. End by thanking your subject and offering to provide a copy of your final product.

After the interview

7. Flesh out your notes with details as soon as possible after the interview, while you still remember them. What did you learn? What surprised you? Summarize both the interviewee's words and your impressions.
8. Make sure you've reproduced quotations from the interview accurately and fairly. Avoid editing quotations in ways that distort the speaker's intended meaning.
9. Be sure to send a thank-you note or email.

Observation. Some writing projects are based on information you get by observing something. For a sociology report, you may observe how students behave in large lectures. For an education course, you may observe one child's progress as a writer over a period of time. The following advice can help you conduct observations.

Before observing

1. Think about your research **PURPOSE**: What are you looking for? What do you expect to find? How will your presence as an observer affect what you observe? What do you plan to do with what you find?
2. If necessary, set up an appointment. You may need to ask permission of the people you wish to observe and of your school as well. (Check with your instructor about your school's policy in this area.) Be honest and open about your goals and intentions; college students doing research assignments are often welcomed where others may not be.

While observing

3. If you're taking notes on paper, you may want to divide each page down the middle vertically and write only on the left side of the page, reserving the right side for information you will fill in later. If you're using a laptop, you can set up two columns or a split screen.



443-51



462-70



98-130



4. Note descriptive details about the setting. What do you see? What do you hear? Do you smell anything? Get down details about color, shape, size, sound, and so on. Consider photographing or making a sketch of what you see.
5. Who is there, and what are they doing? **DESCRIBE** what they look like, and make notes about what they say. Note any significant demographic details—about gender, race, occupation, age, dress, and so on.
6. What is happening? Who's doing what? What's being said? Make note of these kinds of **NARRATIVE** details.

After observing

7. As soon as possible after you complete your observations, use the right side of your notes to fill in gaps and include additional details.
8. **ANALYZE** your notes, looking for patterns. Did some things appear or happen more than once? Did anything stand out? surprise or puzzle you? What did you learn?

Questionnaires and surveys. Various kinds of questionnaires and surveys can provide information or opinions from a large number of people. For a political science course, you might conduct a survey to ask students who they plan to vote for. Or, for a marketing course, you might distribute a questionnaire asking what they think about an advertising campaign. The advice in this section will help you create useful questionnaires and surveys.

Define your goal. The goal of a questionnaire or survey should be limited and focused, so that every question will contribute to your research question. Also, people are more likely to respond to a brief, focused survey.

Define your sample. A survey gets responses from a representative sample of the whole group. The answers to these questions will help you define that sample:

1. Who should answer the questions? The people you contact should represent the whole population. For example, if you want to survey undergraduate students at your school, your sample should reflect your school's enrollment in terms of gender, year, major, age, ethnicity, and so forth as closely as possible.

academic
literacies



rhetorical
situations



genres



fields



processes



strategies



research
MLA / APA



media /
design



readings





2. How many people make up a representative sample? In general, the larger your sample, the more the answers will reflect those of the whole group. But if your population is small—200 students in a history course, for example—your sample must include a large percentage of that group.

Decide on a medium. Will you ask the questions face-to-face? over the phone? on a website such as SurveyMonkey? by mail? by email? Face-to-face questions work best for simple surveys or for gathering impersonal information. You're more likely to get responses to more personal questions with printed or online questionnaires, which should be neat and easy to read. Phone interviews may require well-thought-out scripts that anticipate possible answers and make it easy to record these answers.

Design good questions. The way you ask questions will determine the usefulness of the answers you get, so take care to write questions that are clear and unambiguous. Here are some typical question types:

- **Multiple-choice**

What is your current age?

___ 15-20 ___ 21-25 ___ 26-30 ___ 31-35 ___ Other

- **Rating scale**

How would you rate the service at the campus bookstore?

___ Excellent ___ Good ___ Fair ___ Poor

- **Agreement scale**

How much do you agree with the following statements?

	Strongly Agree	Agree	Disagree	Strongly Disagree
The bookstore has sufficient numbers of textbooks available.	☐	☐	☐	☐

	Strongly Agree	Agree	Disagree	Strongly Disagree
Staff at the bookstore are knowledgeable.	☐	☐	☐	☐
Staff at the bookstore are courteous.	☐	☐	☐	☐



- **Open-ended**

How often do you visit the campus bookstore?

How can the campus bookstore improve its service?

Include all potential alternatives when phrasing questions to avoid biasing the answers. And make sure each question addresses only one issue—for example, “Bookstore staff are knowledgeable and courteous” could lead to the response “knowledgeable, agree; courteous, disagree.”

When arranging questions, place easier ones at the beginning and harder ones near the end (but if the questions seem to fall into a different natural order, follow it). Make sure each question asks for information you will need—if a question isn’t absolutely necessary, omit it.

Include an introduction. Start by stating your survey’s purpose and how the results will be used. It’s also a good idea to offer an estimate of the time needed to complete the questions. Remind participants of your deadline.

Test the survey or questionnaire. Make sure your questions elicit the kinds of answers you need by asking three or four people who are part of your target population to answer them. They can help you find unclear instructions, questions that aren’t clear or that lack sufficient alternatives, or other problems that you should correct to make sure your results are useful. But if you change the questionnaire as a result of their responses, don’t include their answers in your total.

IF YOU NEED MORE HELP

See **EVALUATING SOURCES** for help determining their usefulness. See also Chapter 49 for help **TAKING NOTES** on your sources.

511–18

526–28

academic
literatures

rhetorical
situations

genres

fields

processes

strategies

research
MLA / APA

media /
design

readings

What are the environmental effects of fracking?

Who should determine when and where fracking can be done?

Should fracking be expanded?

Select one question, and use it to help guide your research.

Drafting a tentative thesis. When your research has led you to a possible answer to your question, try to formulate your answer as a tentative **THESIS**. Here are three tentative thesis statements, each one based on a previous research question about fracking:

By injecting sand, water, and chemicals into rock, fracking may pollute drinking water and air.

The federal government should strictly regulate the production of natural gas by fracking.

Fracking can greatly increase our supplies of natural gas, but other methods of producing energy should still be pursued.

A tentative thesis will help guide your research, but you should be ready to revise it as you continue to learn about your subject and consider many points of view. If you hold too tightly to a tentative thesis, you risk focusing only on evidence that supports your own views—but research should be a process of inquiry in which you approach a topic with an open mind, ready to learn.

R-1d Finding Appropriate Sources

You'll need to choose from many sources for your research—from reference works, books, periodicals, and the web to surveys, interviews, and other kinds of field research that you yourself conduct. Which sources you turn to will depend on your topic. If you're researching a literary topic, you might consult biographical reference works and scholarly works of criticism. If you're researching a current issue, you would likely consult newspapers and other periodicals, books, and perhaps blogs on your topic. For a report on career opportunities in psychology, you might interview someone working in the field.