Access all library electronic resources, the catalog (Discover), services, and librarians through one simple URL:

www.utdallas.edu/library

What can you do with DISCOVER?

1. Search for BOOKS, EBOOKS, JOURNALS, EJOURNALS, AUDIOBOOKS, and DVDs along with MILLIONS of ONLINE ARTICLES from leading academic journals, newspapers, and magazines through the Discover search.

2. Search in a subject-focused way, including certain sources that are not part of the DISCOVER search (e.g., certain JOURNALS and EBOOKS, more ARTICLES, STATISTICS, and DISSERTATIONS) through the Databases tab.

Using the Discover Search and Databases to Find Empirical Studies/Articles

From the Georgia State University Library (http://research.library.gsu.edu/c.php?g=115598&p=750881) and McIntyre Library (http://libguides.uwec.edu/empirical):

What is an empirical study?

- Empirical studies are those based on observation and experiment. They are conducted by an author or authors whose work is thoroughly reviewed before going to publication (“peer reviewed”). (See the section Peer-Reviewed or Scholarly Journals vs. Magazines: What’s the difference? for a full explanation of peer-reviewed journals.)

- Empirical research studies will always be published in peer-reviewed or scholarly journals. That being said, not every peer-reviewed or scholarly journal article will be an empirical study.
What types of research make an article empirical?

An empirical article may report a study that used **quantitative research methods**, which generate numerical data and seek to establish causal relationships between two or more variables. They may also report on a study that uses **qualitative research methods**, which objectively and critically analyze behaviors, beliefs, feelings, or values with few or no numerical data available for analysis.

How can I tell if a study is empirical? What are common traits of an empirical study?

Most empirical studies comprise but are not limited to:

- **Abstract** (a brief summary of the article’s content, such as details on the kind of study conducted, including participants or subjects involved)
- **Introduction** (often with a review of relevant literature)
- **Method** (Methods or Methodology)
- **Results**
- **Discussion** (and/or Conclusion)
- **References** (works cited or reference list)
- **Length** (with few exceptions, empirical studies tend to be very lengthy, i.e., longer than three to five pages.)

How do I search for empirical studies?

While there is no 100% reliable way to limit to empirical studies, the following tips should greatly increase your chances of finding them:

- Use the **Discover Search** (default search tab) or online Databases to limit your results to peer-reviewed or scholarly journals.

- Try adding the following terms to your search: *empirical or empirical study, research study, study, quantitative*, or any of the terms highlighted above that describe the characteristics of an empirical study (e.g., *discussion, method, quantitative, or statistics*).

- Some scientific databases (e.g., *PsycInfo, Medline*) will feature a limiter for **empirical studies, clinical case studies**, or **case studies** under their advanced features or limiters (e.g., Methodology, Clinical Queries, or Publication Type/Document Type).

- Read the abstract of the article and skim through the text to find the characteristics stated above. If the article is arranged with an introduction, method/methodology, results, discussion and so on, then it is more than likely an empirical study.
In essence, use common sense and critical thinking skills to determine whether the article is an empirical study. If you are still unsure, please ask your instructor or a librarian for help!

**Peer-Reviewed or Scholarly Journals vs. Magazines: What’s the difference?**

One of the main reasons researchers turn to use the ABM search or databases is to have the ability to search for peer-reviewed articles. The following briefly explains how peer-reviewed articles differ from popular articles.

**Popular Magazines (Time, People, etc.)**
- Intended for a general audience.
- Articles written by journalists who may or may not have special training in what they are writing about.
- Articles do not have footnotes.
- For Profit.
- Not Peer-reviewed.

**Scholarly/Peer Reviewed Journals (JAMA, etc.)**
- Intended for an audience with knowledge in the field.
- Articles are written by scholars, whose names are listed along with credentials.
- Articles are footnoted and list sources used.
- Usually not for profit.
- Peer-reviewed.

**How do I find articles from Peer-Reviewed Journals?**

Use a scholarly database rather than a general database (e.g., MEDLINE vs. Newspaper Abstracts). In many databases, you can limit to scholarly-peer-reviewed journals easily with the click of a filter.

**Is my journal peer-reviewed?**

The **Ulrichsweb** database is an online periodical (journal) directory. Search for your journal by title or ISSN and find out if it is peer-reviewed (aka academic, scholarly, or refereed) or not (popular or consumer magazine).

**General Tips for Database Searching**

- **Input essential keywords and short phrases, not sentences, into your searches.** The library catalog and databases will not parse full questions and sentences and then search them for you. You must break down your query into essential terms and input them, e.g., “artificial sweeteners” AND obesity is a valid search string, not “How do artificial sweeteners contribute to or help combat obesity?”

- **When possible, use the “Advanced Search” screen.** For extra search fields and additional search options such as Boolean operators (AND, OR, and NOT) to help connect terms and phrases together.

- **Try the database Thesaurus or Subject Terms if you need help selecting terms.**

- **Skim abstracts of articles, find new terms to add to and/or replace your original terms, and reiterate your search again and again (and again) to improve it!** Look for terms that continuously appear or jump out at you, and then resubmit your search with new terms added or replaced.

- **If you are getting too few results,** skim the abstracts of the articles returned and see if you can reword your search. Remove those terms which are not absolutely necessary and retry. Lastly, see if there is an “All Text” search or a “search within the full text of the articles” feature. Most databases do not search in article
Use wildcards, truncation keys, and “quotation marks” for added precision and flexibility. A wildcard - typically “?” - replaces a single character in a word. It can be used anywhere and is normally for singulars and plurals of a term, e.g., wom?n for women and woman. Truncation - typically “*” - is similar to a wildcard, but it must be used at the end of a term to replace one or more characters, e.g., comput* for computer, computing, computation, etc. Final tip: surround a search phrase in quotation marks, e.g., “no child left behind”. The “ ” will instruct the database to return matches for the exact phrase only.

“What do I do if the library doesn’t have what I need?”

Interlibrary Loan and TexShare

Interlibrary Loan (ILL)
If UTD does not own the journal or book you need, you may submit an Interlibrary Loan (ILL) request at www.utdallas.edu/library/services/ill/index.html (under Interlibrary Loan & Document Delivery on the right side of the homepage). The library will try to get the item within 7-10 days (1-2 business days for articles) at no cost to you. Only supplementary readings - no textbooks or required course books - can be requested.

TexShare
www.utdallas.edu/library/services/texshare/ With a TexShare card, you can check out materials from participating libraries across the entire state of Texas, which include most public, community college, and university libraries. Use the link above to apply for the card. To find out which libraries in the area own an item you need, go to the WorldCat database under “Databases” on the library site or access www.worldcat.org/.

Writing Resources

Citation Style Guides
The most popular citation style guides (MLA, APA, Chicago/Turabian) can be found behind the Reference Desk (2nd floor). Other copies may be available in the Main Stacks (4th floor) or in Reference (2nd floor) for checkout. Check the Library Catalog for availability.

Online Citation Resources

• Useful Web Sites -> Citation & Style Manuals
  www.utdallas.edu/library/research-instruction/websites/#cite Get assistance with the APA, MLA, Chicago/Turabian and other paper formats (e.g., IEEE).

• RefWorks Citation Manager – manage citations and automatically generate works cited for your papers. www.utdallas.edu/library/research-instruction/refworks/

Group Code: RWUTexDallas.
Writing an Annotated Bibliography

See the Online Writing Lab (OWL) of Purdue for guidance on writing an annotated bibliography:

• **Annotated Bibliographies** - [http://owl.english.purdue.edu/owl/resource/614/01/](http://owl.english.purdue.edu/owl/resource/614/01/)
  What and annotated bibliography is and why you should write one.

• **Annotated Bibliography Samples** - [http://owl.english.purdue.edu/owl/resource/614/03/](http://owl.english.purdue.edu/owl/resource/614/03/)
  Sample annotated bibliographies in MLA, APA, and Chicago Manual Style (CMS) formats. Samples are provided in a PDF file as well.

In-Person Writing and Citing Assistance

- **Writing Center, Student Success Center** – [www.utdallas.edu/studentsuccess/writing/index.html](http://www.utdallas.edu/studentsuccess/writing/index.html) in MC 1.312, 972-883-6736. The lab can help proofread, spell-check, and citation-check your paper. Call or go online to book an appointment with the Writing Center help.

Still Need Help? Click [How Can We Help?](http://www.utdallas.edu/library/how-can-we-help/)

Or click the “Chat with us” button on our site for online help, call us at **972-883-2643**, or visit us in person at the Services Desk.

Access the online companion to this handout at [http://libguides.utdallas.edu/BIS3320](http://libguides.utdallas.edu/BIS3320)