

Finding Research Evidence

Why do I have to find research evidence?

• in parts II and IV of the self-management project, you are required to support your answers by citing research evidence

• it is your responsibility to search for, find, and evaluate relevant research evidence on your own

• these are important skills that will serve you well (and are highly valued by employers)

Finding Research Evidence

What sources should I use?

• primary sources: original research articles

- a research article has sections like "methods,"
 "participants," "results," and "discussion"

- typically published in peer-reviewed scientific journals; most available online via UAlberta
 Libraries website

- the best scientific research is typically an experiment using randomized controlled trials

- however, b-mod research mostly uses single-subject experimental designs

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## Finding Research Evidence

What sources should I avoid?

- secondary sources: descriptions or summaries of research performed by someone other than the author
  - these include textbooks, magazines (including Scientific American), newspapers, science websites, blogs, and Wikipedia
  - and narrative literature reviews that are not systematic reviews (see below)



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 online theses or dissertations (are not peerreviewed or published)

- just because an article appears in a peerreviewed journal does not necessarily mean that it is a research article; some articles are opinion papers or policy documents which are *not* primary research studies
- other sources to avoid: encyclopedias, legal documents, opinion papers, and fictional sources (e.g., Harry Potter and the Prisoner of Azkaban)



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# Finding Research Evidence

Non-experimental sources that are acceptable:

- a systematic review is a comprehensive summary of previously published primary research literature on a topic (do not use a narrative review)
- a meta-analysis is a statistical combination of previously published primary research on a topic
- a survey collects data on people's opinions or recollections (e.g., may describe how certain behaviours are socially unacceptable)



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# Finding Research Evidence

Links to some scientific journals on b-mod:

- <u>Behavior Modification</u>
- Journal of Applied Behavior Analysis
- Journal of the Experimental Analysis of Behavior
- Behavior Analysis: Research and Practice
- Behavior Analysis in Practice
- Perspectives on Behavior Science
- Behavior Therapy
- Behaviour Research and Therapy
- Behavioural Interventions

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How do I search for research papers on a topic?

- use the PSYCInfo® database
  - has over 5 million records of peer-reviewed studies in psychology and the behavioral sciences from 1887 to the present
  - helps ensure you have a high-quality source
  - to access it, you must log in via the UAlberta Libraries website: <u>PSYCInfo database</u>



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- UAlberta Library's Psychology Subject Guide:
  - includes information on PSYCInfo, and explains primary and secondary sources
  - curated by Virginia Pow, the Librarian for Psychology, who offers individual consultation



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## Finding Research Evidence

- many behaviour modification articles are indexed by <u>PubMed</u> and <u>PubMed Central</u>
- for certain behaviours, you may need to search other databases, like ERIC (education), EconLit (economics), or MEDLINE (biomedicine): UAlberta Libraries A-Z Databases
- \( \bigchepsilon \) use Google Scholar, EBSCO Discovery
   \( \subseteq \text{Service}, \) Semantic Scholar, etc. at your own risk



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## Finding Research Evidence

Having trouble finding a relevant paper showing that your target behaviour is beneficial?

- look for evidence that *not* doing your target behaviour is *detrimental* 
  - e.g., instead of saving money is good, try having debt is bad
- then search for this opposite behaviour and the phrase "mental health"
  - e.g., "student debt" AND "mental health"



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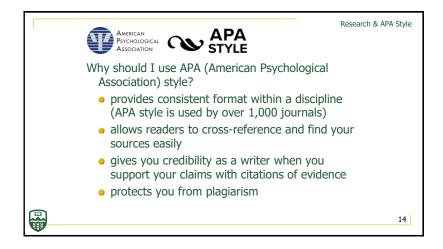
What do I do after I find an article?

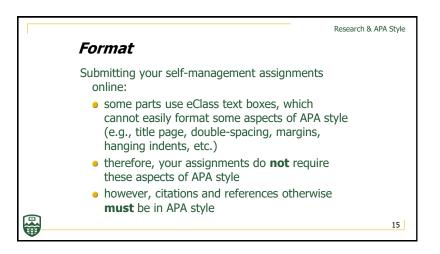
• How to Read and Comprehend Scientific
Research Articles tutorial video

• University of Alberta Library's Foundational
Research Tutorials

• Verywell Mind's Reading Articles in Psychology
Journals

• HuffPost's How to Read and Understand a
Scientific Paper





Citations

Citations

Citations an external source of information.

• do cite all external sources of information (this helps protect you against plagiarism)

• do not copy-and-paste from sources

• do not include direct quotes; summarize or paraphrase (put it in your own words) instead and cite the source

• see self-management project document for more resources on citing, summarizing, and paraphrasing

Citations

Location: in the body of text (not a footnote)

- at the end of a sentence in parentheses with a comma after the author's name:
   PSYCH 282 was found to be cool (Loepelmann, 2024).
- in the sentence itself with the year in parentheses right after the author's name:
   Loepelmann (2024) found PSYCH 282 to be cool.



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**Citations** 

Format: depends on the number of authors

- if there is one author, give surname of author and year of publication:
  - (Freud, 1900)
- if there are two authors, give surnames of both authors and year of publication:
  - (Freud & Jung, 1974)
- if there are three or more authors, give surname of first author, "et al." and year of publication:

(Einstein et al., 1933)

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#### References

References provide a standard set of information that enables the reader to find the cited source in a library or online, or order it via a bookstore.

- located at the end of the document
- centre and bold the word References
- example entry:

Achterberg, J., McGraw, P., & Lawlis, G. F. (1981). Rheumatoid arthritis: A study of relaxation and temperature biofeedback training as an adjunctive therapy. *Biofeedback and Self-Regulation*, *6*(2), 207-223. https://doi.org/10.1007/bf00998870

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References

APA style format for a scientific journal article reference **must** include the following:

- author's surname, comma, author's initials (repeat for all authors separated by commas; put ampersand before final author's surname):
  - Achterberg, J., McGraw, P., & Lawlis, G. F.
- year of publication in parentheses, period: (1981).





References

• title of article (Do Not Capitalize Each Word, do not italicize, "do not use quotes"), period:
Rheumatoid arthritis: A study of relaxation and temperature biofeedback training as an adjunctive therapy.

(words in title following a colon are capitalized)

• journal title in italics (capitalize important words; do not abbreviate), comma:
Biofeedback and Self-Regulation,

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References

• journal volume number in italics:
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• journal issue number in parentheses (this article was published in the February issue and the issue number is 2; do not italicize), comma:
(2),
• page range (or article number if no page range is given), period:
207-223.

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References

• digital object identifier (DOI®):
https://doi.org/10.1021/ed075p1270

- DOI takes you to article online even if it has moved or the URL has changed

- format DOI as a hyperlink

- give DOI even if it takes you to a paywall

- Can't find DOI of article? Enter title of paper at search.crossref.org

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URLs (Uniform Resource Locators):
- e.g., https://www.nature.com/
- only use URL if DOI is not available
- DO NOT give URL with "ezproxy.library.
ualberta.ca" in it (this requires UAlberta
credentials, which expire when you log out)
- if no DOI exists, and you cannot find a URL to
the article without "ezproxy" in it, then give
the URL of the official journal home page

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#### Advance Online Publication

Some papers have been accepted for publication but have not yet been published (they may be called "OnlineFirst," or be on sites like PsyArXiv or ResearchGate).

• add "Advance online publication" to reference: Norris, H. M., & Greer, B. D. (2024). Relative preference for distinct reinforcers maintaining destructive behavior. Journal of Applied Behavior Analysis. Advance online publication. https://doi.org/10.1002/jaba.1051



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Citations & References

♠ Every source that has an in-text citation must also have a corresponding reference at the end (and vice-versa).

♠ Do **not** use online APA style citation/reference generators--they are all flawed and will cost you marks.



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#### Disclaimer

This presentation does **not** cover everything you need to know about APA style! For example:

- When do you use "and" or "&" between authors?
- What if no author name is given because an article was written by an organization?
- What if there's no DOI or URL to an article?
- What if there's an article number instead of a page range?
- Is Dr. Phil a real psychologist?

See More Resources...

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# More Resources



American Psychological Association. (2020). Publication Manual of the American Psychological Association (7th ed.). APA.



APA Style website apastyle.apa.org and apastyle.apa.org/blog



Purdue Online Writing Lab owl.purdue.edu/owl/research and citation/ apa style/



