

## Campus Academic Resource Program

### Citations in Science Writing

#### This handout will:

- Define what citations are and when they should be used.
- Explain the difference between quotes and paraphrasing or summarizing.
- Explain what information does not need to be cited.
- Show how to cite information in-text and on a work cited page based on discipline.
- Review how to organize a work cited page.

In technical writing scientists communicate the general state of knowledge in a particular field. To communicate this knowledge it is crucial to put your ideas in context with other academic works in a variety of ways. From supporting or refuting data, to assisting in shaping your own ideas: any use of non-original work, while a vital part of academic writing, must be cited. The exceptions to this are when you are talking about your original work or analysis, or if you are referring to something that qualifies as common knowledge.

#### What Are Citations?:

Citations help writers build credibility by allowing readers to trace and explore the data and ideas utilized to their original sources. Additionally they are the most effective way to clearly demark that you are not plagiarizing.

- For this handout we will be working with an excerpt from the article “Seasonal Shrinkage of Monterey Pine and Redwood Trees” by Ferdinand W. Haasis: *It has for some time been a matter of observation that Monterey pine trees growing at Carmel, California, show a notable increase in diameter in the late fall or early winter months, apparently preceding the beginning of new spring growth*

#### Quotes, Paraphrasing or Summarizing:

Quotations are when you directly copy words from an article.

- If you wanted to quote the passage above, then you would simply copy it and put quotation marks around it.
  - Example: “It has for some time been a matter of observation that Monterey pine trees growing at Carmel, California, show a notable increase in diameter in the late fall or early winter months, apparently preceding the beginning of new spring growth”

But what if you are putting the author’s ideas in your own words? Do you need to cite that? When you want to put the author’s ideas into your own words it is called paraphrasing or summarizing and it requires a citation. Why? Because despite the fact that you’re using your own language it is still the author’s original idea.

- Paraphrasing is typically used to sum up a sentence or paragraph. An example of paraphrasing from the excerpt above could be: Monterey pines show a distinct increase in diameter in the months before their new spring growth.
  - This new sentence uses different words but it is still Haasis’ idea so it needs to have a citation.

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- Summarizing is typically used to sum up an entire chapter, article, or book. An example of summarizing for Haasis' article could be: The diameter of Monterey pines are influenced by external factors in the Carmel Valley.
  - This new sentence uses different words but is still Haasis' idea so it need to have a citation.

#### When Not to Cite:

Citations are unnecessary when it is your original ideas or considered common knowledge (like formulas).

#### How to Cite Information:

When citing information it must appear in two places in your paper: in your text and in a reference list or work cited page at the end of your paper. This will ultimately be determined by the citation style you are required to use based on the discipline you are writing for or your professor's preference.

#### In Text Citations:

Depending on the citation style you are using in text citations will appear in one of these forms:

- As a parenthetical citation
  - (Haasis, 1932)
- By incorporating the author's name in the sentence:
  - When paraphrasing: Haasis notes that Monterey pines show a distinct increase in diameter in the months before their new spring growth.
  - When quoting: Scientist Ferdinand W. Haasis notes, "*it has for some time been a matter of observation that Monterey pine trees growing at Carmel, California, show a notable increase in diameter in the late fall or early winter months, apparently preceding the beginning of new spring growth*"
- With a number at the end of the sentence for footnotes, endnotes, or references. These are formally known as superscript and can be inserted into your writing in a variety of word processing programs.
  - Monterey pines show a distinct increase in diameter in the months before their new spring growth<sup>1</sup>

#### Citation Styles:

Science writing uses a variety of citation styles that can vary by discipline and journal so it is crucial to ask your professor or the journal you are submitting to which style they prefer. Regardless of which format you use, it is important to remain consistent in your citation style throughout your writing.

- APA: The American Psychological Association. APA is the citation style most commonly used in science classes.
  - In-Text Example:
    - (Author's Last Name, Date of Publication)
  - Bibliographical Examples:

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- Journal Article: Author' Last name, First initial.(Date of publication). Title of article. *Title of Journal, volume number, page range.* doi:0000000/000000000000 or <http://dx.doi.org/10.0000/0000>
  - Books: Author' Last name, First initial. (Year of publication). *Title of work: Capital letter also for subtitle.* Location: Publisher.
  - Websites: Author' Last name, First initial. (Date). Article Title. *Name of Website.* Retrieved from URL.
- Biology: When writing for Biology use the Council of Science Editors or CSE citation style.
    - In-text Examples:
      - (Author's Last Name, Date of Publication)
      - Information you are providing.<sup>1</sup>
    - Citation Organization systems: The Council of Science Editors (CSE) offers three systems of documentation.
      - Citation-Name: In this system your sources are numbered alphabetically by each author's last name in the reference list at the end of your paper. In the sentences of your paper, cite these sources using the number from the reference list. This means that the in-text citation <sup>1</sup> refers to the first source in your alphabetical list.
      - Citation-Sequence: In this variation of CSE your sources are numbered in the order in your endnotes by the order in which they appear in your paper. This means that the in-text citation <sup>1</sup> refers to the first source mentioned in your text.
      - Name-Year: In this system sources are arranged alphabetically in the reference list at the end of your paper. In the sentences of your paper, cite these sources by giving the author's last name and year of publication in parentheses.
    - Work Cited Examples:
      - Book: Author' Last name, First initial. Title. Edition. Place of publication: publisher; date. Extent.
      - Journal Article: Author' Last name, First initial. Article title. Abbreviated journal title. Date; volume (issue): pages.
      - Webpage: Author' Last name, First initial. Article Title [Internet]. Publication City (State):Publisher; Year Month Day [citation date]. Available from URL.
  - Chemistry: When writing a lab report, research paper, or journal article for Chemistry use the American Chemical Society or ACS citation style. Here are some examples of basic citation formats:
    - In-text Examples:
      - (Author's Last Name, Date of Publication)
      - Information you are providing.<sup>1</sup>
    - Work Cited Examples:
      - Book: Author' Last name, First initial. *Title, # ed.;* Publisher: Publication City, Date.

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- Journal Article: Author' Last name, First initial. Article Title. *Abbreviated Journal Title*. Date, *Vol #*, Page Numbers.
  - Webpage: Author. Publisher. Title. URL (access date).
  - For more information consult *The ACS Style Guide: Effective Communication of Scientific Information*.
- Computer Science: In writing for Computer Science the Chicago Citation style is typically used.
    - In-Text Example:
      - Information you are providing.<sup>1</sup>
    - Work Cited Examples:
      - Book: Author Last Name, First Name. *Title*. Place of Publication: Publisher, Year.
      - Journal Article: Author Last Name, First Name. "Title." *Journal Title* Volume # (Year): Page Number.
      - Webpage: Author Last Name, First Name. "Article Title." Last modified Date. URL.
  - Medicine: When writing for Medicine there are two citation styles that may be utilized depending on your professor preference: the American Medical Association (AMA) or the National Library of Medicine (NLM)
    - American Medical Association (AMA):
      - In-Text Examples:
        - Information you are providing.<sup>1</sup>
      - Work Cited Examples:
        - Book: Author' Last name, First initial. Title, edition. *Journal Title*. Vol #. Publication City, State: Publisher; Year: Page Numbers.
        - Journal Article: Author' Last name, First initial. Title. *Journal Acronym*. Publication Date; Volume Number: Page Numbers.
        - Webpage: Author' Last name, First initial. Article Title. *Website Title*. Publication Month Publication Year. Available at: URL. Accessed Date.
    - National Library of Medicine (NLM):
      - In-Text Examples:
        - (Author's Last Name, Date of Publication)
      - Work Cited Examples:
        - Book: Author' Last name, First initial. Title. Publication City: Publisher; Year of Publication. Page Number.
        - Journal Article: Author Last Name. Title. Abbreviated Journal Title. Year Month of Publication; Volume Number (Edition Number): Page Number.

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- Physics: When writing for Physics the American Institute of Physics or AIP citation style is used.
  - In-Text Examples:
    - Information you are providing.<sup>1</sup>
  - Work Cited Examples:
    - Book: Author First Name Last Name, *Journal Title*, Edition Number followed by ed. (Publisher, City of Publication, State, Year), pp. Page Number.
    - Journal Article: First Name Last Name, Journal Name using abbreviations **Volume Number** (Issue Number), Starting page number, (year)

#### Organizing Your Work Cited Page:

Your “Work Cited” will be the last page of your paper and will contain all of your citations in a bibliographical or endnote format. The citation style you are working with will determine if you are using a bibliography or endnotes, also known as a reference list, and there are some differences in how they are organized on a Work Cited page.

- Endnotes:
  - Endnotes are arranged by the order in which they appear in your paper and on your Work Cited page they will be numbered in a way that correspond to the number used in your in text citation.

#### Endnotes

1. Michael Pollan, *The Omnivore's Dilemma: A Natural History of Four Meals* (New York: Penguin, 2006), 99–100.
2. Geoffrey C. Ward and Ken Burns, *The War: An Intimate History, 1941–1945* (New York: Knopf, 2007), 52.

- Bibliography:
  - In a bibliography your sources are arranged in alphabetical order by author's last name.

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- Ward, Geoffrey C., and Ken Burns. *The War: An Intimate History, 1941–1945*. New York: Knopf, 2007.

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