Description

The process of scientific research is inextricably linked to the results of published work. Scientists frequently design their own experiments based on the findings of others. Therefore, it is important that the sources of these findings be acknowledged to avoid plagiarism. This is mostly done by citing these authors in one's own writing. Besides acknowledging the work of other scientists, this also helps the reader to find the source article if they are interested in obtaining more information.

One of the steps that is often overlooked in the beginning is keeping track of the sources of information. Prior to writing an article or a thesis, it is very common to read many papers on a topic of interest. However, when you begin to write, it is easy to remember the data but not where you read it. This makes citing the appropriate paper difficult. It might, therefore be useful to devise a note taking system. You could list each paper with brief notes about the key ideas covered in that particular publication. Returning to this document would then help to ensure that you cite the correct reference for each claim in your own article or thesis without having to re-read several papers to identify the correct reference.

The process of identifying appropriate, trustworthy scientific data has been simplified with the advent of the internet through online searches that can be performed around the area of interest using tools such as Google Scholar or PubMed. Selecting the articles that will be helpful to you requires that you read each one critically. Does it help to clarify the question you have? Does it shed new light on the topic? Is the experimental design appropriate? Often, reading one paper will lead to many others as you may want to read at least some of the articles cited within that paper.

Act of In-Text Citing

The purpose of citations and bibliographies is to give credit where it is due. There is no one citation style. The choice of style will depend on who you are writing for. If you are preparing a thesis, your university or faculty will more than likely have a preferred citation style that you would need to use. If you are writing for a journal, you should consult their Instructions for Authors page to determine the citation style they use. Once the citation style has been selected, it is very important to adhere to the citation style guide consistently throughout your document.

There are three fairly popular ways to handle in-text citations. One is the Name-Year format and involves placing the first author's surname and the year of publication in brackets after the relevant

information.

E.g.: “This type of gene regulation is termed quorum sensing (Fuqua et al., 1997) and is a generic phenomenon described in many Gram-negative (Eberl, 1999; Greenberg, 1997) and Gram-positive bacteria (Kleerebezem et al., 1997).”

In this sentence taken from Hentzer et al., 2002, the source of each idea is cited soon after the idea is mentioned in the text. In this way, there can be no confusion as to which authors developed each idea.

The next two popular styles are very similar to each other. One is Citation-Sequence and the other is Citation-Name. In both citation formats, in-text citation is a number that corresponds to the full reference in the bibliography. In Citation-Sequence, the number corresponds to each article’s chronological appearance while in Citation-Name, the bibliography is arranged alphabetically. For instance, if the first article referenced in your paper was written by Wang, then this paper would be assigned the number 1. In the numbered bibliography, Wang would be the first reference in the list if you were using the Citation-Sequence style. If you were using Citation-Name, the bibliography would be arranged alphabetically and the in-text number assigned to Wang would correspond to whatever position Wang has in the bibliography.

Style Guides for Bibliography

It is important that you adhere to your chosen style guide for the bibliography. It should be noted that footnotes are generally not used in scientific writing. Some styles require abbreviation of journal names. The full names corresponding to journal abbreviations can be found here.

The following examples of citation styles are taken from the Chicago Manual of Style.

- Citing books requires the publishing house, its city, and the page numbers:

Michael Pollan, *The Omnivore’s Dilemma: A Natural History of Four Meals* (New York: Penguin, 2006), 99–100.

- A printed journal article should be referenced as shown below. It is important that all aspects of the style are maintained such as italicizing the journal’s name and placing the title of the article in quotes.

Joshua I. Weinstein, “The Market in Plato’s *Republic*,” *Classical Philology* 104 (2009): 440.

- Dates are important when citing websites in your work:

McDonald’s Corporation. “McDonald’s Happy Meal Toy Safety Facts.” Accessed July 19, 2008. http://www.mcdonalds.com/corp/about/factsheets.html.

Reference Management Tools

The act of ensuring strict compliance to your chosen style guide by formatting your text and reference lists can be tedious. Luckily, there are now many reference management tools available that can help ensure compliance with a variety of style guides. Mendeley will not only assist with reference

management but collaborations and job searches. Like Mendeley, Zotero is free and allows you to collect various types of files for citing including papers, audio files, and newspaper articles. EndNote and Papers are also reference managers but these must be purchased. However, both these options offer academic or student discounts.

It is the author's responsibility to acknowledge the sources of information they used in preparing their research paper or thesis. This is best done by choosing a citation style guide and following it closely since doing this manually can be time-consuming. Many authors, therefore, rely on reference managers to help them adhere to the text formatting required by their chosen style guide. Citing your references properly will also assist in helping you avoid plagiarism while giving your readers the option to read the works you cited.

Reference

Hentzer, Morten, Kathrin Riedel, Thomas B. Rasmussen, Arne Heydorn, Jens Bo Andersen, Matthew R. Parsek, Scott A. Rice et al. "Inhibition of quorum sensing in *Pseudomonas aeruginosa* biofilm bacteria by a halogenated furanone compound." *Microbiology* 148, no. 1 (2002): 87-102.

Category

1. Reference Management
2. Reporting Research

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