

Natural Resource Conservation & Management
Guide to Writing Laboratory Reports
(Updated Fall 2008)

All reports must be typed in 12-point font and double-spaced with 1-inch margins

Title:

Your title should be descriptive and suggest what your report is about. LAB 2 is not an acceptable title!

Introduction:

The introduction has two functions: 1) to provide the context for the lab report and 2) to identify the question(s) asked and the rationale for doing the lab. If appropriate, the introduction should state the hypothesis being tested. [If you're not testing a hypothesis then the overall purpose of the work and a list of objectives should be given] Begin the introduction by reviewing background information that will enable the reader to understand the objective of the study and the significance of the problem. Most ideas in the introduction will come from outside sources, such as scientific journals or books dealing with the topic you are investigating, or perhaps from class notes or the lab handout, itself. All sources of information *must be referenced* and included in the Literature Cited (or References) section of the paper, but the introduction must be *in your own words*. Rarely is it appropriate in scientific writing to include text copied directly from sources.

Methods:

The methods section of your report should describe how you collected and analyzed your data. It should be clear from your introduction *why* you collected these specific data. Consider the following when writing your methods section:

- x Past tense must be used – you already did the work, so use PAST TENSE!
- x Un-necessary details should be omitted! It does not matter who did what, and it usually does not matter in what order the data were collected (even though you have this information in your field notes). For example, it does not matter that a crew of four collected the data, or that Suzie measured diameters and Bob measured tree heights, nor does it matter that diameters were measured before heights. So, do NOT include this information in your methods. However, it DOES matter that diameter was measured with a DBH tape and heights were measured with a clinometer, so you *should include this information*.
- x Information to include: the location, all variables that were measured, and the type of heights are measured, not taken.
- x Data calculations and statistics

_____ : Any calculations or statistical tests that you used to summarize your data should be described. In many cases it will be useful to illustrate how some values were calculated to allow your instructor to check your work. These calculation details are often hidden in the black box of spreadsheets.

- x Did you use standard methods or techniques? If you did, then it is usually enough to identify the technique that you used (sometimes with a citation) without having to describe all of the details of that technique. For example, if you collected vegetative data using the Point Quarter method, then it is usually enough to state that fact without going into all of the intricacies of the method.

Conclusion:

You should summarize your key findings in a conclusion. The objective is to highlight the important points that you observed or learned. These should have been identified previously in the results and discussion section (s). The conclusion is NOT a place to introduce new thoughts or ideas. For short lab reports you may not need a separate conclusion section, but instead can make your concluding statements in a single paragraph at the end of the discussion section.

Literature Cited or References:

Again, in scientific writing, it is important that you cite the sources of your information. When citing references you must use the APA format both in the text and on a Literature Cited page. You can find a complete listing of the guidelines for this format online on the Hunter Library website at http://www.wcu.edu/writingcenter/isource.asp?page=apa_format.html. Some of the more common situations are presented below:

Citing information within your paper.

All citation information in parenthesis

- x Research has shown that men and women use generic pronouns in different ways (Martyna, 1978).

Authors name(s) are used in a sentence

- x According to Stanford (1981), numerous differences...
- x Rogers and Rosen (1989) found...

Author plus date mentioned in sentence followed by page number (when text is quoted)

- x Kwitzel (1976) notes that "humanistic values in literature, science, ethics and society cut across religious commitments and are common possessions of the culture" (p. 5).

Citing works in the Literature Cited section: (The following demonstrates how to reference common types of works, go to the website referenced above for all other types of sources):

Books

Nilsen, A. P., Bosmajian, H., Greshuny, H.L., & Stanley, J.P. (1977). *Sexism and language*. Urbana, IL: National Council of Teachers of English.

Articles in journals with continuous pagination throughout annual volumes

Sklar, E. S. (1983). Sexist grammar revisited. *College English*, 45, 348-358.

NOTE: The first issue for the year starts with page 1, and each subsequent issue picks up numbering where the last issue ended, resulting in higher and higher page numbers.

Articles in journals with separate pagination for each issue

Kamin, J. (1979). Writing: Painting with words. *Journal of Basic Writing*, 2(3), 91-95.

NOTE: "2(3)" indicates the volume and issue numbers, respectively. Because each issue starts with page 1, the issue number is essential information for a reader interested in finding the source.

Basic web sites:

Author/editor. (Year). Title. Retrieved [access date], from URL

NOTE that if there is no date given, use (n.d.).

Prizker, T. J. (n.d.). An early fragment from central Nepal. Retrieved June 8, 1995, from
<http://www.ingress.com/~astanart/pritzker/pritzker.html>

NOTE that if there is no author, you begin a citation with the title.

Example:

GVU's 8th WWW user survey. (n.d.). Retrieved August 8, 2000, from

http://www.cc.gatech.edu/gvu/user_surveys/survey-1997-10/

Internet article based on a print source:

VandenBos, G., Knapp, S. & Doe, J. (2001). Role of reference elements in the selection of resources by psychology undergraduates [Electronic version]. *Journal of Bibliographic Research*, 5, 117-123.

NOTE that this citation form is only used when the article appears online in its original form, i.e. the article has been electronically scanned and has no changes in format.

Document available on university program or department

Evaluation of writing quality

Reports with "A" writing quality have:

- a logical progression of ideas
- clear topic sentences
- cohesive paragraphs
- uses transitions between paragraph
- references to supporting evidence are used - tables, figures, data, or literature
- almost no word choice or grammatical errors

Reports with "B" writing quality have:

- a logical progression of ideas
- some clear topic sentences
- some cohesive paragraphs
- occasionally uses transitions between paragraph
- usually uses references to supporting evidence are used - tables, figures, data, or literature