How to write a results section

The report assignment requires the use of at least 1 table and 1 figure in the results section. In the results section, you present the data in a straightforward manner with no analysis of the reasons the results occurred or the biological meaning of the data (these comments are reserved for the Discussion). Data are generally organized into tables and or/figures (graphs).

Rules for using a Table within a scientific report:

1. Tables within scientific reports contain summary information, not the raw data collected during an experiment.

2. The table caption is located at the top of the table.

3. The table caption should define all abbreviations used in the table and the sample size of the data represented.

Example Table:

Table 1. Mean turbidity scores $\pm$ S.E. for spontaneous generation of life from inorganic material trials using nutrient agar as a growth environment. n= 1 (this should be higher for a good experimental design), s= standard deviation, S.E. = standard error of the mean. LCL and UCL are lower and upper confidence limits for the 95% confidence interval (CI) of the mean.

Treatment	mean	s	2*SE	95% CI LCL	UCL
Flask Open (not autoclaved)	4.8	0.71	0.10	4.7	4.9
Flask sealed (autoclaved)	2.0	1.8	1.8	0.2	3.8

4. If a table is included in a scientific report it must be referenced within the results section text.

for example:

The treatments of an open flask and sealed flask both had mean turbitiy scores greater than one (Table 1).

Figures are used to illustrate the mean and measure of variation (S.E.) of an experiment and allow a reader to visually compare between treatment types. MS EXCEL can be used to produce a Dice Leraas graph(comparison of means). Refer to the handout on webct for instructions on how to use excel to produce the comparison of means graph.

A comparison of means graph represents the mean, UCL and LCL for all treatments. The x-axis is the independent variable and the y-axis is the dependent variable. Below is an example comparison of means graph; the Figure 1. required by this assignment, of course, will have the axis labeled and figure caption correct for the Red/Green algae experiment.
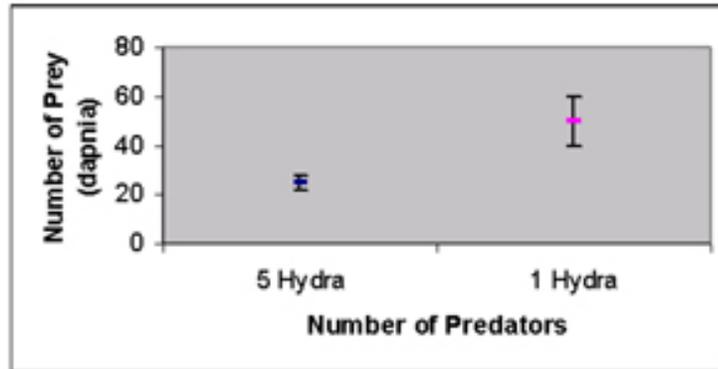

Figure 1. The number of prey surviving 5 hours of exposure to a varied number of predator Hydra. The number of remaining daphnia were estimated using a grid count method, n=6.

The following is an example of a results section written for a lab report on seed germination. Your results section will be different from this example, however this example illustrates aspects of a result section you must include in your lab report results section; such as referring to the table and figure within the text of the results section.

1. The results section must include a table. The table must have a correct table caption.

2. The results section must include a figure. The figure must have a correct figure caption.

3. The Table and Figure must be referred to within the text of the results section.

**   You can not include a Table or Figure without referring to the Table or Figure within the text.**

4. Since you will have only one figure and table, these will be labeled Table 1. and Figure 1. respectively.

5. The results section must contain more than the figure and table; there must be a paragraph describing the results as illustrated in the following example paragraph. Your results section would also contain all figures and tables reference in the paragraph text (the figures and tables are not included with the example to save space)

RESULTS

Three of the concentration treatments had germinated seeds. The wheat seeds treated with 3.5 % concentration of saline did not develop after germination. The distilled water (0% salinity) treatments had the greatest percentage of germination of all four treatments (Table 1). There was a negative linear relationship between the percentage of germination and salinity treatment (Figure 1). The wheat seeds given distilled water had the highest mean growth for the four treatments. The mean growth for seedlings given 1% and 2% salinity did not differ significantly (Figure 2).   There were no seedlings observed for the 3.5 % treatment. The three treatments with salt did not have any fungal growth, but the distilled watered seedlings did have fungal growth in the petri dishes.