

Water Quality Project Final Report

Field Ecology

This report is an **individual** assignment. It should be written in the PAST TENSE (because you are writing this report after your project is complete). Please type your report in Google Docs and turn it in when completed through Showbie.

Introduction:

This section of your report consists of your “What is the Relationship Between” question along with one or two sentences that add some additional explanatory information. Make sure that you give the proper context for what you mean by water quality (in other words, what we were measuring water quality for?).

Methods:

This section of your report should consist of two different parts. In part one, briefly describe how you collected your data (including all four water quality parameters and your second factor). In part two, explain how you calculated a water quality index value for your water quality data. This part should show your full water quality index table along with at least one full paragraph of written explanation that details the choices you made in creating your water quality index table.

Results:

This section of your report consists of neatly formatted data tables from Google Sheets (copy and paste this table into a Google Docs document). Do not include your graphs or any of the other information from your spreadsheet.

Your data tables should be formatted in a professional-looking way and include proper column headings. You should have two data tables: one that shows all of your original data, and one that shows your calculated water quality index values along with the measurements you made for your second factor.

Discussion:

In this section of your report, you will use your data and graph to answer your question. This section will include the graph that shows the trend in your data, the R^2 values associated with the trend, and your interpretation of this trend. It will also include a short critique of your study.

Your graph should be an x-y scatterplot with a trend line and R^2 value. It should be neat and professional-looking, with appropriate titles for the graph and each axis. Copy and paste your graphs from Sheets into your Docs document.

For your written analysis, answer the following questions for your graph in paragraph form:

1. What was the answer to your WITRB question: both factors increase (the trend line goes up and to the right); as one factor increases, the other decreases (the trend line goes down and to the right); or none (more-or-less horizontal line)?
2. Based on your R^2 values, does your data really seem to fit the trends? Do you have enough data for the trends to be meaningful (at least five data points)?
3. Supposing the trends you saw are correct, why do you think this relationship exists? In other words, what is causing your factors to show the relationship they show?
4. What are some of the possible sources of error in your study? (You only need to answer this question once as it will apply to both sets of data.)