

Soil Study 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 work in Google Docs (not Microsoft Word) and submit through Showbie.

Introduction:

This section of your report consists of our “What is the Relationship Between” question along with one or two sentences that add some additional explanatory information.

Methods:

This section of your report will describe how you collected your data. Your methods should take the form of two step-by-step lists. The first list should describe how you collected data and calculated soil moisture; the second list should describe how you counted soil organisms and found their diversity.

Make sure that your instructions are clear, detailed, and describe the actual steps you took to make your measurements and calculations. Your notes will be very helpful for this.

Results:

This section of your report consists of a neatly formatted data table that shows all of the locations we examined (with text reformatted as appropriate) along with the calculated soil moisture and soil organism diversity values. If you use Google Sheets to make your data table, copy and paste your final spreadsheet into your document. Do not include your graphs or any of the other information from our group data spreadsheet.

Your data table should be formatted in a professional-looking way and include proper column headings (“Location”, “Soil Water Content”, and “Soil Organism Diversity”).

Discussion:

In this section of your report, you will use your data to answer your question. This section will include your graph that shows the trend in our data along with your interpretation of this trend. It will also include a short critique of our study.

Your graph should be an **x-y scatterplot with a trend line**. It should be neat and professional-looking, with appropriate titles for the graph and each axis. Copy and paste your graph into your document.

For your written analysis, answer the following questions (**in paragraph form**):

1. What was the answer to our 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)? Explain the trend you see in terms of the two factors we studied.

2. Supposing the trend you saw is correct, why do you think this relationship exists? In other words, what is causing your factors to show the relationship they show? (Or, in scientific terms: what is your hypothesis about the ecological nature of this relationship?)
3. What are some of the possible sources of error in your study? What would you do differently if you were to carry out this study again (or what would you ask others to do differently?)

Your response to questions 1 and 2 should be two or three sentences long. Your response to question 3 should be at least one paragraph in length. Your total written analysis should consist of at least 3 paragraphs.