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BIOL1103-72755

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February 10, 2023

Difference between lab report example and lab format document

The example of a lab report sent by the professor, which is titled “Soil Microbial Responses to Elevated CO2 and O3 in a Nitrogen-Aggrading Agroecosystem”, is a professional experiment and study carried out by numerous people and details an experiment that seems to have been carried out throughout the course of several years. The document that is available on Blackboard, detailing the format and content of a lab report for the BIOL1103 lab course, is intended to be used to write reports on lab experiments that are done in one day in lab groups of 4 students. Although these documents are related to each other because they are both about the topic of lab reports, there are difference due to different academic levels.

The first difference that can be noticed is the length of the example lab report and the general length that the document available on blackboard describes. Due to the experiment being longer and containing more detail and information that needs to be included in the report, the length in the example lab report is naturally longer. Usually, the data and description in a student lab experiment, wouldn’t be as much or as extensive. In the example lab report, there are several subtopics contained within the different sections of the report titled “Materials and Methods” and “Results”. This is due to all the information that needs to be organized well for the report to be easier to understand and cohesive. In a student lab report, as many subtopics wouldn’t be necessary.

Additionally, the example lab report contains a section in which materials are detailed, whereas in a student lab report a list of materials isn’t necessary for the lab report. There is also a section titled “Discussion” in the example lab report, which is another difference from the student lab report format because no section like that is needed. In a more advanced report, like the example report, especially if a new finding is being explained or breakthrough information is being introduced, there is probably additional information that is needed to be added to help explain the topic. Tables and graphs are added in several different sections in the example lab report, which is different to the format document, which says to add tables only in the results section.

In the example lab report, the section of references is much longer than in a student lab report, due to the amount of extra information and other similar lab experiments that would need to be utilized in addition to other resources to create a complete report. Sections such as “Acknowledgments”, “Author Contributions”, and “Supporting Information” are also not sections found in the format document provided in Blackboard but are in the example lab report. These sections have extra information such as appendixes as well as details on who conceived and designed the experiments, who performed the experiments, and who contributed reagents/materials/analysis tools. Additionally, there is also extra information that can be found in the beginning of the paper, such as citations, who edited the report, the funding for the experiments, competing interests, as well when it was accepted and published. These smaller details are not ones that are found in a student lab report. Finally, the overall format of the paper is also different, with the example lab report not containing a title page and being written in two justified columns, instead of paragraphs that are on top of each other.