

Guidelines for lab report assignment



**ASSIGN
BUSTER**

A good lab report should address the following questions: ‘ Why? ’ – Why did I do this particular experiment? “ How? ” – How did I actually carry it out? ‘ What? ” – What did I find? What were my results? “ So What? ” – What does my result mean? What is the significance of the result? What are my

conclusions? 2. Typical sections in a report 2. 1 The Title Page This is the most important section of the report because it provides information about the name of the experiment, author, and date. The title should be straightforward, and contain no more than 15 words. . 2 The Abstract This is a brief summary of the report. It gives the reader a quick idea of what you did, the main results, and their significances. 2. 3 The Introduction The introduction sections in a report states the objectives of the experiments and provide the reader with the background to the experiment. In addition, a good introduction also provides the reader with justification for why the work was carried out. And some further information of the theoretical principle involved in the experiments. Students should take note on VERB TENSE.

These two points should help you in writing the introduction section. By the time you get to the stage of writing a lab report, the experiment is already finished. Use past tense when talking about the experiment. “ The objective of the experiment was..... ” The report, the theory and permanent equipment still exist; therefore, these get the present tense: “ The objective of this report is.... “ Newton’s Law of motion “ The transmission electron microscope produces micrographs.... 2. 4 Materials (or Equipment)

This can be a simple list with short description of the equipment used in the experiments. 2. 5 Experimental Procedure Explain how you actually carried out the experiment in chronological order. Using clear paragraph structure,

explain all steps in order they actually happened. If you have documented the right procedures involved in conducting your experiment, hence, another colleague should be able to duplicate your experiment.

2. 6 Results

The results section consists of calculations, graphs and tables. But student must use the calculations, graphs and tables to explain the results from their experiment.

On a further note, the graphical representation (graphs and tables) must be clearly labeled. Example, Figure 1: Effect of X on Y

2. 7 Discussion

This is usually considered the most important part of the lab report. In this section, students are required to show an understanding of the experiment. This part of the lab focuses on question of understanding. The flow chart in figure 1 can be used as a guideline by student to write the discussion section in their lab report. [pick Figure 1: Guidelines for discussion of experimental results [1]

Other strategies you can use in your discussion are: Compare expected results with those obtained. Analyse experimental error. Explain your results in terms of theoretical issues. Experimental objectives. Compare your results to similar investigations.

8. Conclusion

Relate results to your In most undergraduate laboratory report, the conclusion can be very short. Additionally, the conclusion can also be used to express your views on the weakness of the experimental design (if there is any!), or what is the implication of your conclusion.

2. 9 References

The references section becomes very important if the student have used any outside materials in their lab report. Information obtained from any source,

including the Internet, is covered by copyright law. You must acknowledge any source that you refer to in your assignment, both within the text of your assignment, and at the end of it (by including a list of references).

Referencing your sources also enables the reader to view your sources and follow your report.

2. 10 Appendices This section typically includes raw data, calculation, graphs, picture or tables that have not been included in the report itself.

. Summary This report serves as guideline for student to reproduce well written lab reports. Regardless of variation that may be required by your lecturers, however, the goal of the lab report remains the same: document your findings and communicate their significance.

I “ What is the significance or meaning of results? ”

I Analysis I Interpretation I What do the results indicate? That have you found? I Explain what you know with certainty I I based on your rest Its and draw I Conclusions? I What is the significance of the results? I I What ambiguities exist?