PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

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Working Methods and Terminology2

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Objectives of this Chapter:

The main objective of this chapter is the possibility of the student to write any document which allows him to communicate with others for example:

- A Scientific report

- A technical sheet,
- An internship report
- A scientific article (publication),

I. How to write a scientific report?

The scientific report is the first scientific document that the student must know how to write. As such, it must be written in a concise and clear style, avoiding any form of literary style. Scientific language has technical terms with very specific meanings; they must be used as necessary without overusing them. A poorly chosen term can sometimes completely change the meaning of a sentence or make it incomprehensible.

All the subject of technical report will always respect the same structure described below:

A title, an introduction, a theoretical part, a practical part, the results, their interpretation and a conclusion

Cover page:

The name of the university + department + academic year + module name of \mathbf{PW} + Name and first name of the person responsible for the PW and the number and title of the report

PW plan:

- Introduction
- a theoretical part

- Practical part : Work protocol + results and observations + Interpretations of the results

- Conclusion

First and last name of the student and the group

I.1. Introduction

The introduction (or presentation) of the report must present:

The objective of the PW: is to describe in a few words what you are going to work in this PW and the manipulation goal to achieve. It is essential to have assimilated the course content before each practical session.

- The interest of the PW,

- The problem(s) to be resolved,

- The reporting plan

- It is about clearly defining what we are trying to achieve, show or determine. You must indicate: the concepts covered during this practical work, the important words relating to it, - The methods which will be used

I.2. THEORETICAL PART

I.3. PRACTICAL PART

(DESCRIPTION OF EXPERIENCES)

- Make an inventory of the equipment used for the experiment, present the products or solutions (for example by using the bottle label).

- In this part, you must present the description of the experiments, the results and the discussions.

- If the protocol is described in a sheet, refer to do it without copying it. Explain clearly and briefly the manipulations carried out.

- Annotated diagrams (and adapted sizes) of the experimental setups of the experiments

- To indicate the measured quantities.

- The results (the measurements and their units, written respecting the number of significant figures) must be clear. It can be in the form of a table, a diagram or a short text. You have to find the form that seems most appropriate.

- Number your pages (1/5, 2/5...).

- Your figures must include (fig.1): - A title, - The name of the axes, - The units for each axis, - A scale for each axis, - A legend.

- The tables must be readable, the units must be specified.

- The Interpretations of the results is an explanation of the results found. We must connect knowledge and results in order to explain them well. We see that...but we know that...we deduce that...

- At the end of the session, put away all the equipment and turn off all the devices you used. A device that is not turned off can have serious consequences for human and material safety.

III. Conclusion :

- This is a conclusion on the entire practical work (technique used, relevance of the results, etc.) and also a personal conclusion to indicate your feelings about the practical session.

- The answer to the problem must be clearly stated and it must be indicated whether the goal of the practical work has really been achieved. If the results do not confirm the proposed hypotheses, investigate whether this difference is due to an error in handling, design of the protocol, or the principle of the experiment.

- The conclusion should allow the teacher to check what you have learned from the session.