Chapter 1

Determining Revision Effectiveness

1.1 Purpose

The purpose of this lab is to determine whether handing in a draft report improves a student's mark on the final report.

1.2 Introduction

In the PC131 labs, the first report which students produce is for the *"Measuring 'g"'* lab. The students are expected to submit a draft report, which is marked and returned. The students are then expected to revise and hand in a final version along with the draft. Since any corrections made by the students should raise the mark, the final mark should always be higher than the draft mark.

1.3 Procedure

Looking at the marks students received on drafts, and final reports from fall 2007, determine whether the draft seems worthwhile.

1.3.1 Preparation

Pre-lab Questions

PQ1: What potential difference is there in the weight of the *"Measuring 'g"'* report mark of a student based on whether a draft is submitted?

Pre-lab Tasks

PT1: Highlight the section of the lab manual Appendix **Marking Scheme** which you used to answer Question **PQ1**.

1.3.2 Investigation

Calculate the average and its uncertainty for the final reports of people who *did not* submit a draft.

In-lab Questions

IQ1: What was the average and its uncertainty for people who only submitted a final report? Was the average a passing grade?

In-lab Tasks

IT1: Count the number of people in each category, and fill in the results in Table 1.1.

1.3.3 Analysis

Calculate the average and its uncertainty for each of the remaining groups:

1. drafts of people who submitted both

2. drafts of people who submitted only a draft

3. final reports of people who submitted both

Post-lab Discussion Questions

Q1: Did the averages of the people who submitted only one report agree with the averages of the people who submitted a draft and a final within experimental uncertainty?

Q2: Was there a significant difference between the draft reports submitted by people who submitted both and the draft reports of people who only submitted one? Explain.

Q3: Was there a significant difference between the reports submitted by people who only submitted one, depending on whether it was a draft or a final? Explain.

1.4   Recap

By the end of this exercise, you should know how to :

- write a lab report, including knowing what to put in

  - Results
  - Discussion
  - Conclusions

1.5   Summary

Item	Number	Received	weight (%)
Pre-lab Questions	1	_____	20
In-lab Questions	1	_____	40
Post-lab Questions	3		(in report)
Pre-lab Tasks	1	_____	20
In-lab Tasks	1	_____	20
Post-lab Tasks	0	_____	0

1.6   Template

My name:
My student number:
My partner's name:
My other partner's name:
My lab section:
My lab demonstrator:
Today's date:

Uncertainty in each mark(%):

draft only	both	final only

Table 1.1: Number of students in each group

	draft only	both	final only
$\bar{t}$			
σ			
α			
$\Delta\left(\bar{t}\right)$			

Table 1.2: Statistics for students in each group