

Module 1 Language and Communication

Unit 1.4 Report Writing

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Introduction

About this unit

At some stage in your professional life you will be required to prepare reports. These may be regular student assessment reports or reports on the progress of various projects with which you may become involved.

Whatever the type of report you will be asked to prepare, it is important to understand the principles of good report writing, so that you can produce clear, complete and concise reports which provide useful and easily accessible information to the reader.

In this unit, we shall examine the different types of reports you may encounter, analyse the characteristics of good report writing, and examine the skills required to prepare good reports.

We shall examine the different types of reports in Section 1.

In Section 2 we shall discuss the characteristics of good report writing and consider some of the methods you can use to make sure the reports you write have these characteristics.

Section 3 will look at some of the practical issues involved in preparing and presenting your report.

Preparing reports combines many of the skills we have already examined in other Units of this communication module, and you will be referred back to these as you work your way through this Unit.

How to use this manual

The manual is designed to build on the skills acquired in each section. You should work through this unit at your own pace in the order presented. Each section is designed to build on skills acquired in preceding sections

As well as information on report writing, this unit includes practical activities for you to complete. These activities are designed to reinforce the information and to give you a chance to develop and practise the skills discussed.

Answers to the activities are provided at the back of this manual. Check your answers as soon as you complete an activity. For those activities that do not have a *correct* answer, suggested answers are provided for you to consider.

Assessment tasks are included at the end of the unit. It is these assessment tasks that will determine whether you have met the learning outcomes for this unit.

How you will be assessed

Your assessment for this unit will be a written assignment.

When you are ready for assessment, please contact your tutor.

Finding your way

As you work through the text you'll see symbols in the left margin of some pages. These 'icons' guide you through the content.



Read



Important—take note!



Check your progress



Activity



Competency

The resources of the TVET curriculum are competency based. The competency for each unit is expressed as a number of **learning outcomes** and **assessment criteria**.

The assessment criteria specify what you must be able to do to show you have gained the knowledge and skills needed to achieve each learning outcome.

Each unit has its own assessment criteria specified. Recognition of prior learning is encouraged. If you feel confident you have the necessary level of competence to successfully complete the elements shown on the next page, you may be able to take the assessment without studying the unit.

Learning outcomes

When you have completed this unit you should be able to:

- identify and explain different types of reports;
- state and explain the characteristics consistent with good report writing;
- write a report of an activity relating to the specific field of expertise of the teacher trainee which is suitable for presentation to their *organisation*/institution's management body;
- analyse a report to determine its adherence to basic principles of report writing, giving reasons for any limitations identified.

Assessment criteria

- Match six types of reports with their correct descriptions and uses.
- Identify and describe the characteristics consistent with clear and logical report writing.
- Write a report of an activity related to the specific field of expertise of the teacher trainee, suitable for presentation to the management body of the relative *organisation*/institution. The report must adhere to the principles of report writing as outlined in this unit and the topic of the report must be negotiated with the tutor.
- Analyse a report to demonstrate knowledge of the basic principles of report writing. Substantiate opinions by giving reasons for any perceived limitations or omissions and identifying any noteworthy aspects and the contribution they make to the validity of the report.

Section 1



Types of reports

1.1 What is a report?

A report is a written presentation that organises and analyses information on a specific subject and presents it in a standardised format. Reports are usually written in response to a specific question or request for information.

Most organisations rely on reports of many different kinds to provide those who make the decisions with accurate, up-to-date information on what is happening both inside and outside the organisation.

Reports:

- serve as evidence of work done
- act as a basis for decisions and action
- can enhance the reputation of an organisation. For example, reports on research and development activities

Reports can be simple ***information reports*** using data that is readily available, such as accident reports or reports on the maintenance of machinery which are routinely produced.

Other reports may require months of ***investigation and analysis*** and contain ***recommendations*** that can affect the entire organisation. Reports into staff or business restructuring can have very important consequences within an organisation.

Larger reports may also make recommendations about a specific course of action that an organisation can take.

Academic reports that outline particular research projects may take many people many months or years to prepare for publication.

The basic format of a report is:

Introductory material	Title page Table of Contents Summary
Body of report	Introduction Discussion Conclusions Recommendations
Concluding material	References Appendices

This structure will be discussed in more detail in Section 3 of this Unit that deals with ‘Features of a Good Report’.

In this section we shall examine the different *types of reports* and explore the different *purposes* each of these types of reports serves. The reports we shall examine are:

- administrative and activity status reports
- evaluation reports
- financial and budget reports
- technical reports and specifications
- statistical reports
- educational and materials reports
- academic/articles for publication/research reports

Administrative reports and *evaluation reports* are probably the most common types of reports; so we shall begin with them. The other reports are quite specialised and have their own individual formats and, usually, a particular audience.

Part of the assessment for this unit is that on completion of this unit you will be asked to prepare a report on a topic relevant to your area of teaching expertise. (See ‘*How you will be assessed*’ and ‘*Assessment criteria*’ at the beginning of this unit.) We shall work on that report throughout this unit as a means of reinforcing the skills and techniques we shall be discussing.

It may be useful now to consider some possible *topics* for that report as you will need to negotiate this topic with your tutor before you start to write it.

This Unit will build on skills we have already discussed in the earlier communication units. You will need to refer back to these Units so that you can review the skills learned before applying them to the task of report writing.

Let's begin by looking at administrative reports.



1.2 Administrative reports

Administrative reports are probably the largest category of reports as there may be many different sorts of administrative activities that an enterprise needs to monitor in its ongoing operation. The larger the enterprise, the more reports it will need so that management can be fully informed of progress in all aspects of the business.

Administrative reports provide information on 'how things are going'. They provide information on what **activity** has been occurring and the progress, or **status**, of particular projects or activities.

Some administrative reports are produced at **regular intervals** to provide information on how particular aspects of an enterprise are progressing. Examples of this type of reporting would be:

- sales reports, which give information on the number and value of sales made over a specific period of time
- reports on the volume of goods produced in a manufacturing business
- staff information such as the amount of sick leave taken and staff turnover rates

These examples are generally **short reports** that may contain some statistical information and analysis.

Other administrative reports are written, ***as they are required***. Examples of this type of report are:

- accident reports, which are prepared to record workplace accidents
- quality control reports which provide information on variations in the quality of a product or service

These reports generally contain factual information but may also include some recommendations.

These reports are very diverse in structure. Some may follow a simplified version of the standard report format while others may use a simple form that has to be filled out to give the relevant information. Many organisations have a ***standard form*** that needs to be completed to report accidents that occur on the job.

Progress or status reports may also be prepared on a regular basis to record progress on a particular project or activity that has a timetable/schedule and specific tasks to be completed.

Progress or status reports are used extensively in the building industry or in any organisation that performs tasks on a project basis. These types of reports record:

- what has been completed and by whom
- whether tasks have been completed on schedule using the timetable/schedule as a benchmark
- what amendments, if any, need to be made to the project timetable/schedule as a result

Student reports are another example of a ***progress report*** that is prepared regularly and measures student progress against a set of performance measures. This information is useful to the student, the teacher and the institution.

Let's see how these reports may be used in your organisation.



Activity 1

Administration or status reports

1. As a trainee teacher, are there regular reports completed about *you*?

2. How often are these reports completed about you?

3. Do they follow a standard format, whereby every trainee receives the same kind of report?

4. What information do these reports give you?

5. Who prepares the report?

6. How does your institution use this information?



Remember

- there are many different types of administrative reports
- most are short information reports but some may contain recommendations
- some administrative reports are prepared on a regular basis such as monthly or quarterly reports. Some are prepared only as required
- many of these reports follow a standard format and may have a form that is filled in
- progress or status reports are prepared to record progress on a specific project or activity
- these reports measure progress against a predetermined set of performance standards

The other type of general report that we shall examine the evaluation report.



1.3 Evaluation reports

Evaluation reports tend to be longer reports as they require the writer not only to present information, but also to analyse and evaluate that information. These types of reports usually require that some recommendations for action be included.

These reports follow the standard report format outlined at the beginning of this section.

The most important parts of this type of report are the ***discussion***, ***conclusions*** and ***recommendations***.

Because you are developing an argument and hope to convince your readers to adopt your recommendation at the end of the report, the ***discussion section*** of the report becomes critical.

The discussion section presents the ***factual information*** that relates to your examination of the issue that inspired the report. This should be the largest part of the report.

The argument should be developed in a logical format so that your audience can clearly see the development of your reasoning and the basis for your conclusions and recommendations.

Be sure to separate fact from opinion in this section. Your opinions should be reserved for the conclusion section of the report.

The **conclusions section** draws together the main findings you have made from the information presented in the discussion section. Your readers should be able to see clearly how your conclusions were developed directly from your discussion. There should be no new information introduced in this section.

The **recommendations section** presents the specific actions that you want to have implemented to solve the original problem. These recommendations should clearly relate to the conclusions section so that again your readers can see the logical development of your report. Again, there should be no new information in this section.

To make the distinction between **discussion**, **conclusions** and **recommendations** more clear, here is an example. This is from a (fictitious) report on traffic problems.

Discussion points:

- At least 10,000 cars cross the Access Bridge each day.
- The number of cars crossing the bridge has been increasing by an average of 4% per year for the last 5 years.
- Major rush hour bottlenecks occur on the three access roads (northside) and 4 access roads (southside).

Conclusions:

- Widening the access points will only encourage more cars to use the bridge, worsening the current problem.

Recommendations:

- Devise a campaign to encourage car-pooling to reduce the number of single occupant cars.
- Increase the number of buses in the morning and afternoon rush hours.
- Increase the number of cross-river ferries during rush hours.

Section 3 of this Unit contains more detailed information on the features of conclusions and recommendations parts of reports.

Let's now turn our attention to some of the more specialised types of reports beginning with financial and budget reports.



1.4 Financial and budget reports

Financial reports and budget reports are two different types of reports. Let's look at financial reports first.

Financial reports

Financial reports are essential for any size of business enterprise that has a regular cash flow. Financial reports provide information to an organisation about what their **income** and **expenditure** have been over a specific period of time. Whether reports are prepared monthly, quarterly or every six months they provide important information to an organisation on its financial health. Financial reports are like a 'moment frozen in time' that shows the organisation's financial position at that point in time.

Some financial reports are quite simple for enterprises where there is limited cash turnover in a year. Your own household finance reports may fall into that category. Bank and credit card statements are financial reports that show your transactions over a period of time.

Some financial reports are huge, like the reports that are prepared by large businesses or by governments. Large companies prepare an **Annual Report** to their shareholders and these contain detailed information about the company's financial position.

But whatever the size of the enterprise, this information is used by **all** financial managers to **monitor** business progress over a specific period of time.

A financial report shows the balance between income and expenditure and whether the enterprise is making a **profit or loss**.

The information can be compared with previous months and years to show the progress of an enterprise. It can also be compared with information from similar businesses to show the health of the enterprise. Financial managers can use this information to make decisions about how and where money will be spent to keep the enterprise solvent.

The two basic tools in financial reporting are:

- the Income and Expenses Statement (or Profit and Loss Statement)
- the Balance Sheet

The **Income and Expenses Statement** shows the profit and loss of a business. It is a record of income minus expenses over a specific period of time.

Below is an example of an income statement for a small business, a kindergarten, for one month of its operating year.

Example 1

ABC123 Kindergarten

Financial Report, December 1998

Financial Year January to December			
	Month of:		
Income	Dec-98	Year to Date	Budget 1998
Attendance	\$ 50.00	\$ 32,078.36	\$ 32,575.00
Enrolment & Waiting List	\$ 10.00	\$ 818.00	\$ 600.00
Membership	\$ -	\$ 470.00	\$ 400.00
Cleaning Levies	\$ -	\$ 2,971.05	\$ 3,000.00
Interest	\$ 27.15	\$ 333.37	\$ 600.00
Maintenance Roster	\$ -	\$ 1,625.00	\$ 1,000.00
Parents Roster	\$ -	\$ 1,250.00	\$ 1,000.00
Equipment Levy	\$ -	\$ 4,137.75	\$ 4,000.00
Library Levy	\$ -	\$ 499.05	\$ 400.00
Government Grant	\$ 13,493.00	\$ 55,349.00	\$ 53,600.00
Fundraising	\$ 194.45	\$ 2,242.35	\$ 1,500.00
Sundry Income	\$ -	\$ 439.95	\$ 100.00
TOTAL INCOME	\$ 13,643.00	\$ 103,523.08	\$ 98,875.00
Expenses	\$ 159.86	\$ 551.45	\$ 500.00
Administration Consumables	\$ -	\$ 332.00	\$ 150.00
Advertising	\$ -	\$ 1,625.00	\$ 1,490.00
Affiliation Fees	\$ -	\$ 250.00	\$ 300.00
Audit Fees	\$ -	\$ -	\$ 1,200.00
Minor Asset Purchases	\$ -	\$ 1,775.00	\$ 1,500.00
Cleaning	\$ 402.00	\$ 3,108.00	\$ 3,000.00
Consumables	\$ 563.05	\$ 1,595.73	\$ 1,100.00
Depreciation	\$ -	\$ 2,605.00	\$ 1,000.00
Donations & Gifts	\$ 10.00	\$ 156.50	\$ 100.00
Equipment	\$ -	\$ 923.88	\$ 3,000.00
Insurance	\$ 46.38	\$ 1,923.56	\$ 1,800.00
Library	\$ -	\$ 576.30	\$ 500.00
Maintenance Roster Refunds	\$ -	\$ 625.00	\$ 1,000.00
Parents Roster Refunds	\$ -	\$ 50.00	\$ -
Permits, Licences and Fees	\$ 300.00	\$ 583.00	\$ 400.00
Petty Cash	\$ 100.00	\$ 918.95	\$ 750.00
Provision for Long Service Leave	\$ -	\$ 1,950.00	\$ 1,950.00
Provision for Sick Leave	\$ -	\$ 1,500.00	\$ 1,500.00
Rates, Electricity, Telephone, Lease	\$ -	\$ 2,343.00	\$ 2,300.00
Relief Staff	\$ 141.00	\$ 3,046.43	\$ 1,780.00
Repairs & Maintenance	\$ -	\$ 475.49	\$ 1,250.00
Staff Training	\$ 30.00	\$ 780.00	\$ 330.00
Sundry Expenses	\$ 42.84	\$ 856.55	\$ 750.00
Superannuation	\$ 244.96	\$ 4,127.65	\$ 4,355.00
Wages	\$ 5,744.95	\$ 69,227.38	\$ 67,000.00
Workers Compensation	\$ -	\$ 354.50	\$ 520.00
Yard Maintenance	\$ 10.00	\$ 381.15	\$ 500.00
TOTAL EXPENSES	\$ 7,795.04	\$ 102,641.52	\$ 100,025.00
Operating Surplus/(Deficiency)	\$ 5,839.56	\$ 881.36	-\$ 1,150.00

If you are preparing this type of report it is necessary to keep accurate records of all financial transactions, such as:

- details of income recorded in journal
- expenditure details recorded as a separate journal
- bank statements that have details of cash/cheques deposited and cash/cheques withdrawn
- records of receipts from businesses that have received payments from you
- salary/wage details recorded in a wages journal

This type of record keeping is relatively simple to set up. Your local library should have information on simple accounting procedures that you can follow, or find a local accounting expert to assist.

The ***Balance Sheet***, which is the second type of financial report, shows the enterprise's ***assets*** (cash value of any land or other property, and equipment the enterprise owns), ***minus*** the money owed to others (such as mortgages and unpaid bills), to show the 'net worth' of the enterprise - how much of the enterprise the 'owner' has. In simple terms, ***assets*** are things the company ***owns*** and ***liabilities*** are things the company ***owes***.

Using the same kindergarten as in ***Example 1***, here is another example, on the following page, of their balance sheet at the end of the same operating year.

Example 2**ABCI23 Kindergarten****Balance Sheet**

As at December 1998

Accumulated Funds		1998	1997
General Fund			
Opening balance		\$ 64,493.00	\$ 65,848.00
Add: surplus for the year		\$ 551.00	-\$ 1,855.00
building fund allocation			\$ 500.00
		\$ 65,044.00	\$ 64,493.00
Represented by:			
Current Assets			
Cheque account		\$ 16,828.00	\$ 15,818.00
Building fund account		\$ 4,636.00	\$ 3,295.00
Term deposit 1		\$ 28,092.00	\$ 23,689.00
Term deposit 2		\$ 5,000.00	\$ 5,000.00
Term deposit 3		\$ 3,000.00	\$ 3,000.00
		\$ 57,556.00	\$ 50,801.00
Non-Current Assets			
Property, plant and equipment		\$ 65,879.00	\$ 65,879.00
Less: accumulated depreciation		\$ 32,901.00	\$ 30,296.00
		\$ 32,978.00	\$ 35,583.00
		\$ 90,534.00	\$ 86,384.00
Current Liabilities			
Trade creditors		\$ 1,907.00	\$ 1,759.00
Provision for sick leave		\$ 7,800.00	\$ 6,300.00
Provision for long service leave		\$ 15,783.00	\$ 13,833.00
		\$ 25,490.00	\$ 21,892.00
		\$ 65,044.00	\$ 64,493.00

Both these financial reports are usually prepared by someone in a company or enterprise who has specific expertise in accounting or by an external accountant. Large companies, government departments and educational institutions usually publish an annual report that contains a financial report, usually a Balance Sheet, for public information.

Sometimes it is necessary to include a financial report as part of a larger report. If, for example, you have been working on a large project that had its own specific budget, you may need to include an income and expenses statement as part of the reporting process to management on the progress of the project. The format of that report would be similar to the one used in the kindergarten income statement used as **Example 1**, where income and expenditure are shown against the specific budget allocations.

Let's use this next activity to find some local examples of financial reports so that you can look at the format used.



Activity 2 Financial reports

Your organisation or institution may publish a financial report as part of its annual report. Locate a copy of this annual report and look at the type of financial report and its format. Your tutor may be able to help.

If this is not available, check in your local library as they may hold copies of financial or annual reports from government enterprises or large companies. Companies listed on the Stock Exchange publish financial reports in newspapers for public information. Look at the type of financial report they publish and its format.

The Income Statement and Balance Sheet are the two main types of financial reports. Let's now look at **Budget Reports**.



Budget reports

Whereas financial reports provide information to an enterprise about what their financial activity has been, **budget reports** are an attempt to predict an organisation's financial position at some point in the **future**.

Most enterprises, whether they are owned by the government, by private companies or by individuals, prepare an annual budget as a means of trying to predict their income and expenditure for a specific period of time. This allows the financial manager to plan so that the enterprise:

- has sufficient cash available at all times to meet its obligations
- can plan major expenditure
- has a means of assessing its progress during the year

Many government departments must submit an annual budget to the government so that they receive sufficient money to continue to

operate. This also happens in many large organisations such as large businesses, schools, colleges and hospitals where different departments or sections must compete for annual funding. You could prepare a budget for the year to ensure you have enough money to pay your bills when they are due.

Turn back to **Example 1**, the income statement for the ABC 123 Kindergarten, and examine the budget information contained in that statement. This information appears on each month's statement so that the kindergarten management can assess progress on each budget item during the year and make any spending adjustments necessary to ensure the financial health of the centre.

Let's look at the type of information the management of the kindergarten might get from the comparison of the budget information with the actual expenditure.



Activity 3 Budget reporting

Look in detail at **Example 1**, the Income Statement for the ABC 123 Kindergarten. Examine the **Expenditure** part of the table and compare the information provided in the budget predictions with the actual expenditure recorded in the 'Year to date' column.

1. Highlight where the centre has **overspent** its budget allocation for the year.
2. Place an asterisk beside any item where the centre has **underspent** its budget allocation for the year.
3. Circle if there are any items where the centre has **met** its budget prediction.
4. What is the overall **financial position** of the kindergarten?

Turn to page 105 for suggested solutions to this activity.



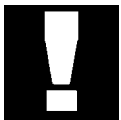
This is the kind of information that financial managers look at to determine whether an enterprise is maintaining a viable financial position or not. You could probably apply the same techniques to your own budget.

When preparing a budget forecast, financial managers:

- look for historical information contained in previous years' accounts to make their predictions
- must take into account short-term and long-term plans for changes that the enterprise may make, such as purchasing equipment to expand its operations or taking on new staff
- consider that costs of goods and wages are also likely to increase, so these elements have to be allowed for in the budget report

Budget reports are also important parts of many ***business proposals*** that have to be approved by management.

Let's say, for example, that you would like to introduce a new course of study in your local area and you would like your organisation or institution to help by providing funds to establish the course. Management is unlikely to approve this new activity unless you are able to provide them with specific detailed information on how much money this is going to cost. In other words, a budget report would be an essential element of such a proposal.



Remember

- ***financial reports*** are a record of what has been spent by an enterprise over a specific period of time
- the two main types of financial reports are the ***Income and Expenditure Statement*** and the ***Balance Sheet***
- a ***budget report*** is an attempt to predict the income and expenditure of an enterprise over a specific time period
- ***budget reports*** and ***financial statements*** together help to give managers an accurate picture of the financial condition of an enterprise

Let's now look at another type of specialised report, ***technical reports*** and ***specifications***.



1.5 Technical reports and specifications

Technical specifications are a description of what a particular machine or piece of technology is capable of doing.

Technical reports use these specifications to report on the performance of the machine or piece of technology.

Technical reports are written for a variety of reasons. Usually, they report on:

- new technology available
- performance of existing technology
- suitability of technology to a specific task.

Let's look at the example, on the next page, of a set of specifications for a four-wheel drive passenger vehicle.

Example 3**SPECIFICATIONS****“Really Tough” Off-road 4 Wheel Drive**

Recommended Retail Price	\$ 53,870.00
General Equipment	
Airconditioning	\$ 2,550.00
Automatic transmission	\$ 2,200.00
Brakes (Front/rear)	disc/disc
CD Player	standard
Central locking	standard
Cruise control	standard
Height adjustable driver's seat	standard
Power mirrors	not available
Power windows	standard
Split fold rear seat	standard
Steering wheel height adjustable	standard
Safety Equipment	
A Braking System	standard
Driver's airbag	standard
Passenger's airbag	standard
Rear head restraints	standard
Engine Capacity	
Litres	4.5
Valves per cylinder	4
Maximum Power (kW @ rpm)	165 @ 4600
Maximum Torque (Nm @ rpm)	387 @ 3600
4WD system	Full-time
Dimensions	
Kerb weight (kg)	2300
Length (mm)	4800
Width (mm)	1900
Height (mm)	1900
Ground clearance (mm)	200
Turning circle	12 metres
Seating capacity	8
Fuel Consumption	
Average litres per 100 km	19
Tank capacity (Litres)	140
Tank Range (km)	750

These specifications could be used to:

- compare this vehicle with other vehicles of similar size
- provide information on what the performance of the vehicle should be under certain conditions

Technical reports generally use the same format as other types of formal reports. This format will be discussed in more detail in Section 3 of this unit.

The major difference between a **technical report** and other types of report is that the technical report contains a large amount of technical information and, probably, more graphics and numerical data.

Most technical reports are written by people who have specific skills with the technology being reported. The major difficulty with some technical reports is that the writer does not take into account that the **audience** he/she is writing for may not have the same level of expertise. For example:

A mechanic preparing a report recommending the purchase of a new four-wheel drive passenger vehicle from the specifications used in **Example 3** would need to pay careful attention to the level of expertise of the reader. The danger is that the message of the report may be lost in a 'sea' of technical terminology.

We have spoken in previous units about the importance of considering your audience and limiting the amount of jargon you use OR providing a glossary for your reader to use to find the meaning of technical terms.

For further information on the use of jargon and the use of simple language, please refer to these sections in previous Units:

- Unit 1.1, Listening and Writing; Section 2.4, Writing Skills;
- Unit 1.2, Language and Communication; Section 3.3, Use of Language.

For this next activity, you will need to refer to **Example 3**, the specifications for the 4WD passenger vehicle.



Activity 4

Technical reports and specifications

Read the Specifications in *Example 3*. Using a highlighter pen or an ordinary pen, circle the information that you *don't* understand. If you needed to understand this information, how could you find out what this information means?

Turn to page 106 for suggested solutions to this activity.



Remember

- a **technical specification** is a description of what a machine or piece of technology is capable of doing
- a **technical report** uses these specifications to report on the actual performance of the machine or technology
- **technical reports** use a similar format to other formal reports but may contain more technical and numerical information and graphs and tables

If you are writing a technical report, be aware of your audience so that you can ensure your audience can understand the technical terms used.

Now, let's turn our attention to the third type of specialised report, the statistical report.



1.6 Statistical reports

In Unit 1.2, *Processing Information*, we discussed the difference between fact and opinion. In Section 3.4 we described a **fact** as a statement that could be proved or reliably tested as in ‘the earth is round’ or ‘the rock weighs 2 kilograms.’

It might help in the understanding of this section if you look back at Unit 1.2, Section 3.4, and review the information on fact versus opinion.

Statistics are numerical facts.

A statistical report uses **numerical information** to report on an issue. Most of the information presented in the report is numeric with written text used to expand on this information and link the information.

Statistics can also help to add meaning and credibility to reports when numbers can be used to enhance the description. Instead of only stating that ‘the amount of violent crime is increasing’ add a **statistical table** that shows the extent of violent crime over a number of years as shown in this example.

Armed Robberies in Peaceful City 1990 - 1997	
Year	Number of armed robberies
1990	245
1991	301
1992	317
1993	345
1994	356
1995	388
1996	404
1997	413

Source: Peaceful City Police Statistical Advice Bureau

You could further enhance these statistics by adding the percentage increase of crime each year. It adds to the credibility of the statistics to include the source of the data.

Depending on the type of information you want, **real** statistics are generally readily available through your local library or government departments. You can also create your own statistics by collecting relevant numeric data and setting it out in tables and graphs. We shall discuss this in a little more detail in Section 3 of this Unit.

Very few reports would rely on statistics alone but some types of reports contain large numbers of statistics.

Governments, in particular, collect a lot of information about the people who live in their country and use this information to research details about the population such as:

- the age distribution - the number of people in different age brackets
- birth rates
- rates of marriage and divorce
- employment information - how many are working, what sort of occupations people have
- income levels
- where people are living - country versus the city

And lots more!

This information is then used by governments to plan the types of services that the population might need. The information can also be used by business planners looking for likely places to set up a new business.

Scientific reports, economic reports and reports on social and population trends all use a large number of statistics to explain their arguments.

Statistical reports are generally prepared by people who have special knowledge of the preparation of statistical information and its interpretation. These reports are written assuming that the people who will read them are able to interpret this information and make use of it.

If you are planning to use statistics in a report, beware of getting too carried away with numbers. Statistics presented should be relevant and easy to interpret. Statistics should not be presented without some explanation or without drawing your reader's attention to the most important information contained in the numbers. Not all your readers may be comfortable with reading numeric information. For this reason, you may also prefer to include a graph to interpret the numbers.

"Keeping it simple" is a worthwhile philosophy in all communication.

Let's now do two activities related to statistical reports.



Activity 5 Statistical reports - reading statistical tables

To use statistics effectively you must be able to understand and read statistical tables. Read the following table and then answer the questions below.

Number of children per married couple %						
Year	0	1	2	3	4 or more	Total
1990	37.3	23.3	22.8	10.7	5.8	100
1991	36.3	23.2	24.4	10.8	5.3	100
1992	36.9	22.5	24.7	10.7	5.3	100
1993	38.7	21.6	25.1	10.2	4.4	100
1994	39.4	21.4	25.2	9.9	4.0	100
1995	38.9	21.5	25.6	10.0	4.0	100
1996	38.4	21.6	26.2	10.3	3.5	100

1. From the statistics presented above, what are the general trends over the last few years for the number of children per married couple? (Look at the changing percentages for each category of number of children)

Turn to page 106 for suggested solutions to this activity.



Activity 6

Statistical reports

Visit your local library and locate the publications that contain the Government population statistics. (This is sometimes called 'census' information). Look at the type of information that is published in these reports.

1. Examine the methods used to set the information out.
2. Did you find the information easy to understand?



Remember these points about statistics:

- if used properly, can be used to enhance the effectiveness of reports
- can present in compact form information that may otherwise take a lot of explanation
- can be more convincing than unsupported opinion
- must be well presented, relevant and easy to read

Let's now go on to examine educational and materials reports.



1.7 Educational and materials reports

This type of special report concentrates on evaluating educational strategies and resources or materials used in teaching or training.

Examples of the kinds of reports that could be written are:

- ***‘Schools in the new millennium’*** - an information report or discussion paper on how schools can embrace technologies such as the Internet as an alternative to the traditional campus and classroom.
- ***‘Using computers in the pre-school’*** - an information report that contains analysis of the use of computers in pre-school education for 4 and 5 year-olds.
- ***‘How to replace the teacher - using interactive computers for maths teaching in primary schools’*** - a report containing recommendations on how to use these types of computer programmes successfully.
- ***‘Apprenticeship education - are tradesmen the best teachers?’*** - a report requiring an analysis of information and recommendations about future apprenticeship or trade training.

These reports can be either information or analysis, that is, some reports contain recommendations and some do not. These reports follow the basic structure outlined at the beginning of this Section.

Unlike some of the other types of reports, the subject matter of these reports is less tangible than other types of reports. Learning, teaching and understanding are ***abstract*** ideas that can be experienced but not necessarily seen or touched. All the other types of reports such as technical reports, financial reports and statistical reports, talk about ***things*** that can be seen and measured,

The ***writers*** of educational reports have specific skills in education. The ***audience*** for this type of report is usually quite specialised as well. These reports are aimed at educators, teachers and academics or government officials.

Let’s look at the last of the types of special reports that we shall examine, academic reports.



1.8 Academic and research reports

Publishing the results of scientific or academic research is as important as conducting the research itself. Releasing the results of the research to the scientific community means that:

- other people can benefit from the findings made
- the work can be duplicated and verified by other scientists or academics
- the work is open to criticism
- well-conducted and presented research findings published in reputable journals add to the prestige of the individuals involved and to the organisations they represent

When publishing the results of their research, scientists and academics tend to operate in a worldwide forum. Most results are published in publications that are available at least nationally and usually internationally as well. This means that over a period of time, a standard report writing format has been developed which is used all over the world. All scientific and academic reports use this format.

Some shorter reports may eliminate some sections or combine some sections. For example, a short report may not require both an abstract and an introduction.

STRUCTURE OF THE ACADEMIC AND RESEARCH REPORT

Section headings	Description of contents
Abstract	<p>What the report is all about - set out very briefly.</p> <p>This is usually about 200 words in length.</p> <p>The abstract covers:</p> <ul style="list-style-type: none"> • the purpose of the research • a brief comment on the procedures used • a brief summary of results. <p>This is the last part of the report to be written but the first to be presented.</p>
Introduction	<p>Why you conducted the research.</p> <p>This is about a page in length - maximum.</p> <p>The introduction covers:</p> <ul style="list-style-type: none"> • the aims or purpose of the research • any hypotheses or theories being tested • any background information necessary to understand the findings. <p>The rest of the report must relate to these aims and hypothesis.</p>
Methods and Materials	<p>What you did, how you did it and what resources were used.</p> <p>This is a detailed section that allows others to use the same methods and materials to duplicate your research.</p> <p>The methods and materials should describe:</p> <ul style="list-style-type: none"> • the design of the experiment • a list of all materials used • the equipment and instruments used • observational methods used.
Results	<p>What you found out as a result of your research.</p> <p>Again, this is a detailed section that sets out in detail the findings made.</p> <p>This section should contain:</p> <ul style="list-style-type: none"> • A summary of results obtained • Any graphs or diagrams that help to make results more easily understood.

Discussion	<p>What do the results mean.</p> <p>This section interprets and explains the significance of the results obtained in relation to the aims presented in the Introduction.</p> <p>This section should:</p> <ul style="list-style-type: none"> • point out any significant trends in the results • provide your interpretation of these results • acknowledge any limitations in the research.
Conclusion	<p>What you discovered.</p> <p>This is a short statement that:</p> <ul style="list-style-type: none"> • summarises the major findings from the research • relates them back to the stated aims of the research and the hypothesis to be tested.
Acknowledgments	<p>Who helped.</p> <p>This section acknowledges the help received from other people and organisations in conducting the research.</p>
References	<p>What reference sources were used.</p> <p>This section lists all the reference sources used during the research process and preparation of the report.</p>

The audience for these reports is usually very specific. The research papers are usually only of interest to other people in the same field of research. In fact, in most cases you would need to be in the specific field so that you can understand what the report is about!

There is an example of a short scientific report at Appendix A (page 117). Look at the report so that you can see the structure and the contents of the various sections. Unless this is your area of expertise, you probably won't understand the content. Just concentrate on examining the parts of the report.

You will be focusing on the development of a research report as part of Module 12. In this section, we have ***defined a report*** and examined different ***types of reports***.

Before concluding this Section, take some time to begin planning the type of report you will write for your assessment.



Activity 7

Assessment report

Review the different types of report presented previously. Now give thought to:

- what is the topic of your report?

- what type of report are you going to write?

Keep this information as we shall continue to work on this report as you study the rest of the Unit.



Summary

A report is a written presentation that organises and analyses information on a specific subject and presents it in a standardized format.

Reports:

- serve as evidence of work done
- act as a basis for decisions and action
- enhance the reputation of an organisation

There are two basic types of report:

- information reports
- analytical reports

The basic format of a report is:

- Title page
- Table of Contents
- Summary or Abstract
- Introduction
- Discussion
- Conclusions
- Recommendations
- References
- Appendices.

Administrative reports are information reports, and they provide information on 'how things are going', for example:

- some are regular reports, eg. monthly or quarterly reports
- some are completed as required, eg. accident reports
- some may require the completion of a standard form.

Status reports record progress on a particular project or activity.

Evaluation reports are longer reports that require the writer to present information, analyse and evaluate this information and make recommendations. These reports use the standard report format.

Financial reports provide an overview of what the finances of an organisation have been over a specific period of time.

There are two main types of financial reports:

- Income and Expenditure Statement
- Balance Sheet.

Budget reports are an attempt to predict an organisation's financial position at some point in the future.

Technical specifications are a description of what a particular machine or piece of technology is capable of doing.

A ***technical report*** uses these specifications to report on the performance of the machine or piece of technology.

Technical reports may be written to report on:

- new technology available
- performance of existing technology
- suitability of technology to a specific task.

Statistical reports use numerical information to report on issues. These reports use numbers, tables, charts and graphs to present the factual information with minimal written text.

Educational and materials reports concentrate on evaluating educational strategies and issues.

Academic reports are used to publish the results of research to other members of the same academic community.

Academic reports follow an internationally recognised format:

- Abstract
- Introduction
- Methods and materials
- Results
- Discussion
- Conclusion
- Acknowledgments
- References

You will use the information related to Academic reports to present your research findings in Module 12.

**Check your progress**

1. What is a report?

2. What is the basic format of a report?

3. What type of report is an administrative report?

4. List two types of administrative reports.

(1) _____

(2) _____

5. Define a status report.

6. What is the difference between an information report and an evaluation report?

7. Briefly describe two types of financial reports.

(1) _____

(2) _____

8. What is a budget report?

9. What is the difference between a technical specification and a technical report?

10. What kind of information does a statistical report use?

11. What are educational and materials reports?

12. What is the recognised international format for a scientific or academic report?

Remember that there are no answers given, so check your responses against the information in Section 1.

Section 2



Characteristics of good report writing

As we have already observed in Section 1, there are many different types of reports, each requiring different types of information and a different style of presentation.

However, there are certain characteristics that should be common to all reports. These are the characteristics that make good reports:

- good research
- complete and concise information
- observes the conventions of grammar, spelling and punctuation
- attractive presentation.

Let's look at each of these in turn.

2.1 Good research

Research should be the most time-consuming part of the report-writing process. The usefulness of your report is dependent on the **quality** of the information you provide. Your information must be accurate and must cover all aspects of the issue you are investigating.

Researching information means gathering data from as many **different sources** as necessary to ensure you have covered the topic comprehensively and verified your information.

The information you are gathering must be **relevant** to the task, so your research needs to be **clearly focused**.

Two skills that will be very useful to you when you are conducting research for your report are **note-taking** and **summarising**.

Note taking is an important skill in the research phase. This skill was discussed in Unit 1.1, *Listening and Writing*, Section 1.2, *Improving listening skills*.

Summarising, which was discussed in *Unit 1.2*, Section 4, is also a skill that will be very useful when you are researching information for your report.

If you are undertaking any sort of research, review these skills so that you can get the most from the information you find.

Conducting research is a process that involves three phases:

- define the task
- prepare a preliminary plan
- determine information sources.

We shall explore each of these in turn.

Define the task

This is a very important part of the research process, as it will determine the direction of the report and perhaps how successful it will be.

Consider these four factors:

1. Define the type of report you are being asked to produce.

Are you:

- providing information to keep management informed about a specific subject?
- providing a written record of a task completed in an organisation?
- recommending a specific course of action?
- providing information on which decisions will be made?
- reporting on the results of research or experimentation?

2. *Determine the audience for your report.* You need to consider:

- who has asked for the report and who will read the report?
- is it an internal report so that the readers will be familiar with your organisation's jargon and internal structure?
- will some of your readers come from outside the organisation and what difference will that make?
- is it a report to your clients?

3. *Discover the limitations within which you must work.*

Consider the following:

- is there a specific budget within which you must work? This may apply to both the recommendations you can make and the amount of staff time and resources you can use to produce the report.
- is there a deadline? There usually is!

4. *Describe the major issues to be researched.*

- sometimes this is clearly defined in the specifications for the report. If not, spend some time to define the issue you are investigating.

Let's work on an example of defining the task.



Activity 8

Defining the reporting task

From the following scenario and using the steps outlined above, fill in the information you would need to define the report you are to produce.

For some months now, management of the XYZ Company has been concerned about the efficiency of the computer system they had installed three years ago. The regular monthly reports on maintenance have shown a steady increase in the cost of servicing the system. Management has asked you to find out the reasons for the increase in maintenance costs and any difficulties that staff may be having with the computer system. There will be a management meeting in six weeks and they would like the report available then. The investigation is to remain small at this stage so there is allocation only for you to write the report. The report will remain confidential until management has had a chance to review your findings.

1. What type of report is management asking you to prepare?

2. Who is the audience for your report?

3. What limitations must you work under?

4. What are the major issues to be investigated?

Turn to page 106 for suggested solutions to this activity.



Having defined the task that needs to be done, you can now move on to the second phase in conducting good research, preparing a preliminary plan.



Prepare a preliminary plan

Having defined the task, it is useful to spend some time preparing a preliminary plan for your report so that you can more accurately describe the kind of information that you need to include in your report. The plan also ensures that you don't overlook any information that you should include or any steps in preparing your report.

We shall discuss in more detail in Section 3 of this unit how to structure the written report for presentation. In the meantime, what we need to think about are the kinds of information that should be included at each main stage of the report.

The report will have three main sections:

- Introduction
- Body
- Conclusion

The **Introduction** will cover such information as:

- the reason for the report
- the present conditions or a description of the current problem/problems
- outline of methodology to investigate the problem

The **Body** of the report will include such information as:

- the findings from the research undertaken
- analysis of this information leading to findings about the specific causes of the current situation.

Your **Conclusion** will have:

- a summary of findings
- recommendations, if these are called for

The **introduction** is clearly the most critical aspect of the planning process as it gives direction to what you are going to look for and the methods you will use to gather the information you want.

The **body** of the report requires you to access the sources of information you think will give you the information you need. We

shall look in more detail at these sources in the next Section of this Unit.

Before writing your **conclusion**, you must be sure about what it should contain, that is, the conclusion varies depending on the type of report you are being asked to produce.

Now, let's turn our attention to the last aspect of good research, which is selecting sources of information.

Sources of information

Having defined your task and completed your preliminary plan, it is now time to turn to the sources of information available to you. There are lots of choices depending on what you need!

There are also different **types of information** that you can use in your report. Some types of information have more credibility than others, and so it is important to choose a variety of types of information.

In this section we shall look at:

- the different types of information available to you
- the sources of such information
- some of the issues to consider when you are using this information

Let's begin by looking at the types of information available to you. There are three types of information that you can use:

- primary information
- secondary information
- anecdotal information or personal experience

Primary information

These are first-hand accounts of events or **actual evidence of events** that have occurred. These could include diaries, contemporary newspaper or television and radio reports, transcripts of speeches and photographs. Within a company or organisation, primary information can be gathered from records of actual incidents recorded by those involved, such as accident reports or maintenance logs, minutes of meetings and staff records.

Information gathered from surveys, questionnaires and interviews with people who are directly involved with an issue is also useful primary information.

Primary information is useful to give factual background details of events that have occurred.

Secondary information

This information comments on or interprets events after the incident has occurred. These would include books, documentary films, videos, journal articles, etc., which can still have their information confirmed against the original events. Within an organisation, secondary information could include information gathered from reports and projects written about major issues that have occurred as well as results of enquiries held into past events.

Secondary information is useful because much of the work of interpreting events has already occurred and can reinforce your arguments as long as you choose reliable and credible secondary information.

Anecdotal information or personal experience

This information is collected directly from other people or your own personal experience, which cannot necessarily be validated. For example, you may have one person's account of an incident but there may not be any other information to confirm the description of events.

Anecdotal information should be used sparingly and only if the anecdote being used comes from a credible source. That could be someone who has recognised expertise in the area being discussed or a person whose opinion is likely to be respected and trusted.

Let's now look at some of the ***sources*** of information.

First look for ***primary sources*** of information. These could be found in company or business records, newspaper and magazine archives, government departments and libraries. Once you know the type of information you want, think as broadly as possible about where the information could be kept.

Primary information can also be gathered directly from people using surveys, questionnaires and interviews.

Surveys are designed to gather data about a particular topic, which can then be simply converted to numeric data. Surveys usually require the respondent to complete simple yes/no answers to a range of questions or to keep a specific record of the number of times that certain activities are performed. Everyone who participates in the survey is asked the same questions.

Have you ever been telephoned or visited and asked how you intend to vote before a government election? This is a type of survey as there are usually a small number of questions and you are asked to choose from 'yes, no or unsure' as your response.

Often surveys are designed for only a sample of a population rather than for everyone.

Surveys are reasonably easy to prepare but you must be careful that the questions you ask are clear and precise so that the people being surveyed can make a clear choice. Think carefully about the types of questions you ask.

If your survey wants to know whether people prefer one type of soft drink to another, then asking the following question may not get the information that you want.

Circle the appropriate answer:

I regularly drink cola or lemonade *Yes* *No*

If your respondents don't regularly drink either, then you will get lots of blanks that give you no information at all.

Consider structuring the question in this way:

Which soft drink do you prefer? ☐ *cola* ☐ *lemonade*

Circle the appropriate response:

I regularly drink cola. *Yes* *No*

I regularly drink lemonade. *Yes* *No*

This will give you more information that is useful to you!

Responses to questions should also be easy to turn into numeric information. Surveys can be administered either in written form or verbally.

Questionnaires give the researcher a chance to gather not only factual data but also information about people's opinions and feelings about an issue. They are usually a longer document than a survey.

They are both more complex to prepare and more time-consuming to complete so they must be well prepared if the amount of time to prepare them is to be justified.

Questions should be structured so that they can be easily converted to numeric data for ease of interpretation.

Questions on questionnaires can take many forms. They can be yes/no, true/false, multiple choice or ask to indicate an opinion on a sliding scale such as:

On the scale below each question, indicate your level of agreement by circling the appropriate response.

1. *I enjoy completing questionnaires.*

Agree Partly agree Neither agree nor disagree Partly disagree
Disagree

Questionnaires can be administered in person, over the phone or mailed out for people to complete and returned. If you mail out questionnaires, you can expect fewer than half of them to be returned. This is a problem because the smaller the number of questionnaires returned, the more susceptible the results will be to bias. Bias results when the people responding are too different in some way from the group of people you would like to generalise to.

Interviews are another source of primary information that you can gather directly from people.

Interviews involve a researcher asking people a series of questions on a one-to-one basis.

Interviews are either structured or unstructured:

- **structured interviews** use the same questions in the same order for every person interviewed
- **unstructured interviews** are more like a conversation but with a specific purpose

Each type of interview has a slightly different **purpose**:

- **structured interviews** give information which is much easier to collate and then compare across the range of interview subjects
- **unstructured interviews** are much more difficult to examine and interpret but can give the interviewer a much richer picture of people's feelings and opinions on specific issues.

One problem with interviews is finding a way of keeping track of the responses. You could:

- record or videotape the interviews. Some people may object!
- try and take notes yourself. This can be distracting for both the interviewer and the subject and slows the process down
- have a third person taking notes during the interview. Once again, this can be distracting as well

- write a summary of the interview after the interview. How much are you going to forget?

If you were the **subject** of an interview, which methods of recording the interview would you prefer?

Secondary information

A major source of secondary information is **libraries**. In Unit 1.2, ***Listening and Writing***, Section 4, we discussed in detail how to find information in a library and the different types of information that libraries hold. Review this information now as a reminder of the range of resources available in a library and how to locate useful resources.

Anecdotal information

Choose the **sources of your anecdotal information** well to ensure that they are recognized as credible sources of information. If you are using your own experience or opinion as a source of information, be sure to establish your own expertise or authority to comment on a particular subject.

There are two issues that you need to carefully consider when accessing information. These are:

- acknowledging the source of the information
- confidentiality

It is a custom to **acknowledge the source** of your information. It is also a legal requirement unless you want to risk accusations of plagiarism, that is, copying someone else's work and claiming it as your own. Keep a careful record of the sources of your information and use the reference system that is accepted by your institution.

If you are using information obtained by surveys, questionnaires or interviews, your subjects may prefer to give their information anonymously. Establish with your subjects very early whether or not they wish their comments to be kept **confidential**. Be sure to honour such requests or you may not receive any future cooperation.

Let's use the information about **preparing a preliminary plan** and about **sources of information** for the report to XYZ management that we started in Activity 8 (page 40).



Activity 9

The preliminary plan

Go back to the scenario in Activity 8. From the information supplied there and your answers to the questions in that activity, decide ***what*** information you need to collect and ***how*** you plan to collect the information.

1. What information do you need to collect?

2. How do you plan to collect the information?

Turn to page 107 for suggested solutions for this activity.



Let's now apply the information we have covered so far in this section, to your assessment report.

**Activity 10****The assessment report – Preparing a preliminary plan**

Use the steps described in this Section 2.1 to begin making your preliminary plan for your report.

1. Define the type of report (see Activity 8).

2. Determine the audience for your report.

3. Discover what limitations you will work under.

4. Describe the major issues to be researched.

**Activity 10 (cont.)****The assessment report – Preparing a preliminary plan**

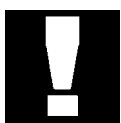
5. What kinds of primary information do you need?

6. What kinds of secondary information do you need?

7. What kinds of anecdotal or personal information will you use?

8. How will you collect this information?

Based on all this information, prepare a preliminary plan for your report. Keep this information, as we shall refer back to it again later.



Conducting good research is the first characteristic of good report writing. Let's move on to look at the second characteristic of good report writing.



2.2 Reports should be complete and concise

The report that you are writing should say all that you want it to say (completeness) as quickly and as economically as possible (conciseness).

If you want your report to be taken seriously, then it must be written in a way that will attract your reader and encourage him or her to read on. ***So your report must look readable and be readable.***

Let's look at some of the techniques you can use to ensure that your report is both complete and concise.

Completeness

A complete report is one that has all the information in it so that the reader can clearly follow the issues being presented and can follow the logic that leads to the conclusions or recommendations made.

There is, however, a balance to be struck between having sufficient information to achieve this and creating ***information overload*** because you don't want to leave anything out of your report!

Here are some techniques for overcoming some of these difficulties:

- Be ruthless when it comes to ***selecting*** the material that you want to include in your report. Include only material that actually contributes to your argument.

Let's say, for example, that you are writing a report on an accident that occurred at a workplace. You have four eyewitness accounts that confirm the events that happened. You could include details of one eyewitness account and then state that 'This account is supported by three other witnesses, John Smith, Beth Jones and Rose Brown.'

- Consider whether the information you are using adds to the report or ***supports information*** you already have. If the information only supports, then refer to it but do not include it as part of the report.
- Include information that is too bulky or too detailed to include as part of the body of your report in an ***Appendix***. Appendices appear at the end of the report and must be referred to in the body of the report. In this way, your readers still have access to the information if they wish to read it in full, but it doesn't block the flow of your argument in the main part of the report.

Technical specifications, results of questionnaires or surveys and reference material can all be placed in an appendix. It is usual that each of these items would appear in a separate appendix. Each appendix should then be labelled 'A', 'B', 'C', or I, II, III, etc.

- Consider using a ***glossary*** if your report contains a lot of technical detail and terminology, and you are writing for an audience who may not fully understand the terminology. A glossary explains each term so that you don't have to keep explaining a term each time it recurs in the text.

Conciseness

One of the recurrent messages through all the communication units so far has been that simple, straightforward communication is the most effective. This applies just as much to writing reports as to any other form of communication.

A well-written report has a *clear message* that is expressed in *simple language* and *simple sentence* structure.

In Section 2, Use of language in Unit 1.3, ***Presentation and Communication***, we discussed the importance of simple language to enhance the communication process and, especially, avoiding 'old-fashioned' or complicated expressions.

This is a concept called '***readability***'. There have been various attempts to try to measure how readable text is. Some measures refer to the reading age required to understand the information and others talk about 'fog' levels. If you are interested in finding out more about these measures, check in your local library. Some grammar checks in word processing software also indicate readability.

We can assess the readability of our own text by reading critically or by asking another person to review and proofread our report.

**Avoid these pitfalls:**

- Overuse of jargon
- Complicated words
- Complicated sentence structure
- sexist language. Avoid the use of he or she. Use gender-neutral terms or titles instead - students, office workers, manager
- vague words or terms. If the effects were significant then define significant!
- Pompous or bureaucratic language.

Try this next activity about readability.

**Activity 11**
Conciseness and readability

Read the following phrase and underline the inappropriate language. Try to find simple substitutes.

With regard to the matter of the wage increase for office personnel, I consider that at this point in time it is not in the best interests of the organisation to consider this proposal seriously on the basis of the current economic situation.

Turn to page 107 for the suggested solution to this activity.

The next characteristic of a good report is that it observes the conventions of grammar, spelling and punctuation.



2.3 Grammar, spelling and punctuation

There is nothing more distracting than reading a report that contains errors in grammar, spelling and punctuation. Not only do the errors take away from the message that the writer is trying to convey, but they also lessen the reader's opinion of the writer. There are some simple rules and techniques you can follow to help ensure that basic writing conventions are met.

Let's start by reviewing some basic grammar.

Grammar

In Unit 1.1, *Listening and Writing*, we examined basic sentence structure and grammar (Section 2.2). Here are the general rules about sentences from that Unit:

General rules about sentences

From the information about subject, verb and object, we can devise some general rules about sentences. Let's look at a few of these simple rules:

- every sentence has a ***subject*** and a ***verb***. Simple sentences have only one subject and one verb. Complex sentences may have more than one subject and more than one verb
- some sentences that contain an action verb may also contain an ***object*** - a noun or pronoun that receives the action of the verb
- nouns and verbs should agree in ***number*** - a singular noun has a singular verb; a plural noun has a plural verb
- verbs also indicate ***tense***. Ensure that you use the same tense in all your sentences when writing.

These rules may be enough to refresh your memory about basic grammar. If not, review the Section in Unit 1. Test out your skills in the next activity.



Activity 12 **Basic grammar**

Read the following sentences and highlight the subject, underline the verb and circle the object.

1. We are borrowing my friend's car.
2. Jim was wearing a blue shirt.
3. I will wear my new clothes.

Using the same sentences, identify the ***tense*** of the verb (*past, present or future*).

4. _____ tense.
5. _____ tense.
6. _____ tense.

Again using the same sentences, identify whether they have a ***singular subject and verb*** or a ***plural subject and verb***.

7. _____
8. _____
9. _____

Turn to page 107 for suggested solutions to this activity.



Spelling

Here are some guidelines for improving spelling:

- if you're not sure how to spell a word, find a **simpler** word!
- keep a **dictionary** near you to check spelling
- **proofread** your work thoroughly when you have finished. Ask a colleague or friend to proofread for you as well
- if you are writing on a computer, use the **spell checker**, but don't rely on it completely. Sometimes you may spell the word correctly but use it in the wrong place and the computer will not pick that up
- **check** your spelling carefully before you make the final copy of your report
- ask another person to **review** and proofread your report. Very often they will identify errors that you have skipped because you were too familiar with the topic

There are several spelling mistakes in the next activity. Find as many of them as you can.



Activity 13 Spelling

Read the following list of words. Circle those words that you think have been spelt incorrectly. Write your correction beside them.

1. Calender _____
2. Committee _____
3. Development _____
4. Febuary _____
5. Management _____
6. Personnel _____
7. Proceedure _____
8. Redundent _____
9. Temporary _____

Turn to page 108 for suggested solutions to this activity.



Punctuation

Punctuation is the range of symbols that is used in written text to make the meaning clear to the reader. Look at this example:

Don't eat Jack.

Don't eat, Jack.

How does the punctuation change the meaning of these sentences?

Significantly! The first sentence is a command to someone not to eat Jack. The second sentence is a command to Jack not to eat!

Use of Some Punctuation Marks

The punctuation marks that we shall examine are the comma (,), the colon (:) and the apostrophe (').

The Comma

More mistakes are made with commas than with any other punctuation mark. Usually, people put in commas where they are not needed. A simple rule to follow is:

If in doubt leave it out!

There are times when a comma **should** be used. Here are some guidelines for using commas:

- use a comma if the sentence would be confusing without it. Our examples above, using Jack, demonstrate this

- use a comma to separate items in a list or series:

I asked Betty to buy apples, oranges, bananas and onions.

- if you have a long introductory phrase at the beginning of a sentence, use a comma to separate it from the main part of the sentence:

After spending several years living overseas, John was pleased to be home.

- use a comma to separate any phrases that begin with **and**, **but**, **for**, **nor**, **yet**, **or** as in these examples:

We stayed at the beach for five days, but we didn't have fine weather.

I am going to the shops, and I will probably see a movie later.

Try these rules in the following activity.



Activity 14 Punctuation

Read the following sentences, and insert a comma in the appropriate place.

1. Wake up Jeff.
2. We are going to go hunting Jan.
3. After spending the morning swimming the children were too tired to play.
4. Jan walked down the cold dark creepy hallway.
5. We bought pens paper glue erasers and chocolate.
6. We worked hard on the project and received a good grade from our tutor.
7. Tom was usually a very good student but fell asleep during lectures a lot.
8. When she first got her driving permit Alice was too nervous to drive.

Turn to page 108 for suggested solutions to this activity.

The next punctuation mark we shall examine is the **colon**.



The Colon

If you scan back through this text you will find that the colon has been used a lot. Its main uses have been to introduce lists of items or to introduce an example.

Here are the most common uses of the colon:

- before a list, for example:
There are three secrets to success in life: blood, sweat and tears.
- to separate an example from the rest of the text. For instance:
Computers have many uses. They are:
 - *word processing*
 - *creating spreadsheets*
 - *desk-top publishing.*
- to introduce a quotation, that is, the actual words someone has said, when you want to make the quotation dramatic.
The man shouted: 'I am only human.'
- to separate two phrases in a sentence where the second phrase explains the first.
Joan was very proud of her daughter: she had graduated from college with honours.

Try applying these rules in the next activity.



Activity 15 The colon

Read the following sentences, and insert a colon where appropriate. There is no need to rewrite the sentence.

1. The accused woman exclaimed 'I am innocent.'
2. There are five phases of the moon new moon, first quarter, half moon, last quarter and full moon.
3. There are several uses for the colon. For example to separate an example from the rest of the sentence.
4. Peter was very angry with the car repairer the fault was still not fixed after the third attempt.
5. I have just two things to say to you keep your shoulder to the wheel and your nose to the grindstone.

Turn to page 108 for suggested solutions to this activity.

The last punctuation mark we'll examine is the ***apostrophe***.



The Apostrophe

Apostrophes are used for two purposes:

- to indicate where a letter has been omitted
- to show ownership

Let's look at the ***omission*** of a letter first.

When you contract or abbreviate two words, it is usual to use an apostrophe in place of the omitted letter. For instance:

- *You are* becomes *you're*.
- *I am* becomes *I'm*.
- *There is* becomes *there's*.
- *He is* and *she is* become *he's* and *she's*.
- *I have*, *you have* and *they have* become *I've*, *you've* and *they've*.
- One contraction used frequently through this text is *let's* for *let us*.

Apostrophes are also used to ***show ownership***.

Apostrophes are added to the end of a noun as in:

- *John's* hat
- *Someone's* ball
- *James's* car

These examples are all **singular** nouns. If the noun was **plural**, the apostrophe goes after the 's' at the end of the word.

- The *drivers'* helmets
- The *girls'* toys

If the plural noun does not end in 's', then add an apostrophe before the 's' such as:

- *Men's* clothes
- The *children's* books

The only time an apostrophe is NOT used to indicate ownership is in the contraction 'its'. 'Its' is used as the possessive pronoun because 'it's' has been shortened from 'it is' and would cause confusion. Look at the following example:

- *It's* too late to go swimming today.
- The dog ate *its* bone

Let's try an activity using apostrophes.



Activity 16 The apostrophe

Read the following sentences, and then place an apostrophe where appropriate. There is no need to rewrite the sentence.

1. Childrens shoes are very expensive.
2. Its getting late so give the dog its bone.
3. Have you got your umbrella?
4. These are the new clients files.
5. We are playing soccer at Carols house.
6. Dont say you havent been warned.
7. This is Franciss big brother, Fred.
8. Lets go and play.
9. Pick up the boys towels from the floor please.
10. Ive got your violin and its case at my house.

Turn to page 109 for suggested solutions to this activity.



Remember

- Correct grammar, spelling and punctuation are an important part of your report writing
- Poor grammar, spelling and punctuation leave a poor impression

We'll now move on to look at the final characteristic of good report writing, and that is that reports should be attractively presented.



2.4 Attractive presentation

Having researched your report well to make sure that the information is complete, concise and readable, and having proofread your report to correct the grammar, spelling and punctuation, you now need to go to a little extra trouble to make sure your report **looks** good.

Attractive presentation does not change the meaning of your text and it won't make a poorly written report any better, but it will mean that your readers will be more likely to **want to read** the report.

Let's look at this document as an example. All the Units in this module follow the same layout instructions so that each one looks the same and there is little chance that you, the reader, will be confused as you read through each successive document. Scan through the document and look for the features as they are discussed below.

Layout

The layout of this document uses lots of 'white space' so that the eye is not overwhelmed by text. White space is achieved by using:

- short paragraphs
- double line spacing between paragraphs
- one-and-a-half line spacing between lines
- lists like this one
- indenting
- generous borders on each side of the page

The layout is further enhanced by using:

- clear title pages and information pages such as: Table of Contents and Introduction. (We shall look at the structure of a report in more detail in Section 3.)
- headings that are clearly identified in bold type
- a new page to start a new section

- headers and footers on each page that show the document name plus page numbers
- icons to indicate different parts of the text
- tables and graphics to 'break up' the text. (The use of different sorts of graphics will be discussed in more detail in Section 3 of this Unit.)

Print style

The print style or font used for this document is New Century Schoolbook in 12 point (the size of the letters) as this is considered to be a very readable print style and size. All the headings are in **Arial Bold** in various sizes:

- 12 point,
- 18 point,
- 24 point.

Print styles with serifs, that is, the little tags at the top and bottom of the letters are considered most appropriate for text, as they are easier to read and carry the eye across the page. New Century Schoolbook is a serif font.

Arial is a 'sans serif' font, that is, it doesn't have the tags and is considered appropriate for headings because of its clean and uncluttered look.

The print is also enhanced by the use of **bold**, *italics* and underlining to emphasise different parts of the text.

Packaging

If at all possible, present your report in an attractive cover and use the best quality paper you can.

Use only white paper for the pages of the report but feel free to use colour on the cover.

Coloured graphics that relate to the contents of the report can look very appealing on the front cover.

Exercise your creativity in the following activity about presentation.



Activity 17 Presentation

You are writing a report titled 'Computer Systems for the New Millennium'. Design a title page for this report. The page will:

- be printed in black and white
- have the report title and the author's name clearly marked

Turn to page 109 for suggested solutions to this activity.



Summary

In this Section we have looked at the characteristics of good reports. There are four ***characteristics***: Good research; Complete and Concise; Correct grammar, spelling and punctuation; Attractive presentation. Let's review each characteristic in turn:

1. Good research

- define the task-/
- define the type of report
- determine the audience for your report
- discover the limitations you must work within
- describe the major issues to be researched
- prepare a preliminary plan
- determine the types of information required in each phase of the report, Introduction, Body and Conclusion
- determine information sources

There are three ***types of information***:

- ***primary information*** - actual evidence from original sources including information obtained from surveys, questionnaires and interviews
- ***secondary information*** - comment and analysis of events
- ***anecdotal or personal experience*** - information directly from other people or from your own personal experience. Use sparingly.

2. Complete and concise

- **complete** – say all that you want it to say
- **concise** - say it quickly and economically

Be aware of the '**readability**' of your document and avoid jargon, complex words and sentence structure, sexist language, vague words and terms, and bureaucratic language.

3. Grammar, spelling and punctuation

- **grammar** - general rules about sentences: subject, verb and object
- **spelling** - proofread
- **punctuation** - be aware of the correct use of punctuation, especially the comma, colon and apostrophe.

4. Attractive presentation

- layout - use of white space and the placement of text on the page
- print style - 'sans serif' print style for headings, 'serif' print style for text
- use of different point sizes to show importance
- use of bold, italics and underlining for emphasis
- packaging - attractive paper and covers.

The next Section will look at the features of good report writing including the organisation of the report, graphics, numbering, ethics and style. But, before moving on check your progress.



Check your progress

1. List four characteristics of a good report.

(1) _____

(2) _____

(3) _____

(4) _____

2. What are the three phases of conducting research?

(1) _____

(2) _____

(3) _____

3. Define:

Primary information

Secondary information

Complete

Concise

Readability

4. Give two reasons why it is important to use correct grammar, spelling and punctuation.

(1) _____

(2) _____

5. List and describe three means of improving the presentation of your report.

(1) _____

(2) _____

(3) _____

Remember that there are no answers given, so check your responses against the information in Section 2.

Section 3



Features of a good report

So far in this unit we have examined different types of reports in Section 1 and considered the characteristics of good report writing in Section 2.

In this last section of this Unit, we shall discuss the features of good report writing, which are:

- correct organisation
- use of graphics
- an appropriate style
- ethical writing

This will help you in the actual writing and assembly of your report.

Once again, we shall work on your assessment report as we work our way through this section.

We shall look at each of these in turn beginning with the organisation of your report.

3.1 Correct organisation of your report

Organising your report not only helps the **reader** to make sense of the arguments you are presenting, but also helps you, the **writer**, to keep on track and to present the material you have researched most effectively.

Here are some of the features of well-organised reports that we shall examine in more detail:

- follow the correct report writing **structure** so that your arguments are developed **according to an accepted format**
- use **clear headings** so that your reader can follow the development of your argument and you have a clear sequential order within which to write
- **organise your information** so that it follows a logical sequence
- if you are presenting a long report or a formal report, use a **numbering system** as well to assist your reader to find their way through the report

Pay particular attention to the preparation of these ***sections of your report***, as they will be the focus of the greatest attention:

- Introduction
- Summary
- Conclusions
- Recommendations

Let's look at the correct use of structure and headings in report writing.

Structure and headings

In Section 1 of this Unit, '***What is a report?***', we outlined the basic structure of a report. Let's briefly review that structure here and then look more closely at what specifically each section should contain.

The basic structure of a report is:

Introductory material	<ul style="list-style-type: none">• Title Page• Table of Contents• Summary
Body of report	<ul style="list-style-type: none">• Introduction• Discussion• Conclusions• Recommendations
Concluding material	<ul style="list-style-type: none">• References• Appendices

Title page

The title page should have a clear and unambiguous title for the report that clearly states what the report is about.

The name or names of the author or authors is also essential.

Sometimes, the title page may contain details of any authorization obtained to produce the report, that is, the name of the person in authority who requested the report or gave permission for the research to be conducted.

Table of Contents

This should list everything in the report with the exception of the title page and the Table of Contents page itself.

Include all sections and major subsections with their page numbers.

In a large report with a lot of graphics, there may be a separate table that lists the graphics.

Look at the Table of Contents page for this document as an example.

Summary

This part of the report should be written *last*.

It is sometimes called an 'Executive Summary'.

It should summarize all the following sections of the report: Introduction, Discussion, Conclusions and Recommendations.

In large reports this may be as far as some of your readers will get!

The summary should be kept as brief as possible.

Introduction

The Introduction should include:

- the reasons the report was requested
- the purpose of the report
- the scope of the report - issues that were included in the report and issues that were left out
- how the information for the report was collected.

Sometimes, this section may also include a short glossary of terms. If there are many technical terms, these should be included in a separate section.

Discussion

This section presents your findings from the research you have conducted. The difference between discussion, conclusions and recommendations was discussed in Section 1.3, ***Evaluation reports***.

Conclusions

This summarizes your findings from the discussion and presents the major issues to be considered by your readers.

Recommendations

These are the actions that you want to happen as a result of your findings and conclusions. This section is required in evaluation reports and some types of administrative reports only.

References

Include references for all your sources so that if a reader wants to verify your information sources they are able to. It is also a courtesy to acknowledge information you have gathered from other sources.

Appendices


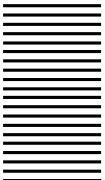
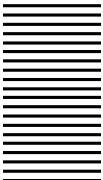
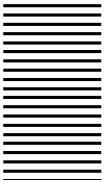


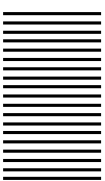
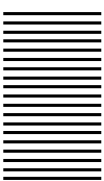
You may have material that is too bulky to put into the main part of your report but which you feel contributes to the argument you are developing. In that case, using an appendix is a useful means of including the material without cluttering up the main part of your report.

There is an Appendix at the end of this unit that demonstrates the format they take.

This format is for *long, formal reports*. A *short report*, that is, one less than eight pages in length, as a general guideline, could have some amendments to these sections:

- **Summary** - There is no real necessity to include a summary in a short report
- **Table of Contents** - Different section headings should be easy to find without this
- **Conclusions and Recommendations** - If your report contains both, they could be combined into one section

When you are writing a report, it can be helpful to take a number of pieces of paper and write the headings that you're going to use for your report using a separate page for each heading.

Title	Table of Contents 	Summary 	Introduction 	Discussion 
Conclusions 	Recommendations 	References 	Appendices	Summary 

Then, as you find information that is relevant to these sections or you think of ideas, you can jot them down on the relevant page so you can easily find the information again later.

Let's apply this information about structure and headings to the report that you are writing for assessment, in Activity 18.



Activity 18

Report headings and structure

From the preliminary plan that you prepared for your assessment report in Activity 10 (page 48), decide on the structure and headings you are going to use for your report.

1. Write the headings you will use below.

2. Now, write your headings **one per sheet** of paper.

Keep this information, as we shall refer back to it again later.



Now that you have decided on the structure and headings for your report, let's move on to look at some methods for organising your information.



Organising your information

One feature of a good report is that the information and arguments presented are well organised.

To be persuasive, your arguments must be logical and easy to follow. Appropriate structure and headings will help achieve this. But of greater importance is presenting your information in the discussion section of your report in a logical sequence. If this information is easy to understand, then you will have a better chance of persuading your reader of the logic of your conclusions.

When you are thinking about the type of information you need to include in your discussion, think also how you can arrange that information for your reader.

Here are some simple rules for arranging your information:

- ***Put similar topics together.*** If, for example, you were comparing two products, group similar comparisons together:

2.1 Purchase costs:

Brand A
Brand B

2.2 Major features:

Brand A
Brand B

- ***Separate different topics.*** For instance, if you were looking at the advantages and disadvantages of a new piece of equipment, deal with all the advantages in one section and then discuss the disadvantages.
- ***Follow a logical sequence*** when dealing with a series of issues such as: 'Section 1 of the report will look at the history of the problem. Section 2 will examine the likely causes and Section 3 will deal with the long-term consequences.'



Activity 19

Organising your information

Return to the XYZ Company scenario introduced in Activity 8 (page 40) and continued in Activity 9 (page 47). Activity 9 asked you to decide what kind of information you needed to collect for your report.

1. Given the guidelines we have just examined, how would you organise this information in the discussion part of your report?

Turn to page 109 for suggested solutions to this activity.



So far in this section we have looked at:

- The importance of using proper report structure and clear headings
- The need to organise your information in the Discussion section of your report into a logical sequence

Let's now look at using ***numbering systems***.

Numbering systems

Numbering on reports can look very complicated and very confusing when you first see it used. But again, there are a few simple rules to follow and the process of numbering your report becomes much easier.

Good reports use a numbering system to:

- help readers know where they are in the report
- give signposts for information that readers may wish to refer to again later

Numbering requires you to think about grouping similar information together using the guidelines we discussed above in 'Organising your information' and then using a number to define that relationship in the layout of your report.

A numbering system is especially important in long reports. In a short report, different sections can be identified by their headings or by using different styles of type to differentiate topics as we discussed in Section 2.4 of this unit, '*Attractive presentation*'.

The easiest numbering system to use is the *decimal system*, which uses numbers separated by decimal points to differentiate different sections and subsections.

Your report could have a numbering system that looks like this:

Example 1

1. Introduction
 - 1.1 Heading
 - 1.2 Heading
 - 1.3 Heading
2. Discussion
 - 2.1 Heading
 - 2.2 Heading
 - 2.3 Heading

You could add further subheadings if your report is very long or complex.

Example 2

1. Introduction
 - 1.1 Heading
 - 1.1.1 Subheading
 - 1.1.2 Subheading
 - 1.1.3 Subheading
 - 1.2 Heading
 - 1.2.1 Subheading
 - 1.2.2 Subheading
 - 1.2.3 Subheading
2. Discussion
 - 2.1 Heading
 - 2.1.1 Subheading
 - 2.1.2 Subheading
 - 2.1.3 Subheading
 - 2.2 Heading
 - 2.2.1 Subheading
 - 2.2.2 Subheading
 - 2.2.3 Subheading

This Unit uses a numbering system similar to ***Example 1*** so that you, the reader, can find your way easily. This is what the numbering system for this section looks like:

- Section 3 Features of a good report
- 3.1 Correct organisation of your report
 - 3.2 Using graphics
 - 3.3 Appropriate style
 - 3.4 Ethical report writing

Each of these sections could be further broken down using the numbering system in **Example 2** so that this Section would be numbered like this:

Section 3 Features of a good report

3.1 Correct organisation of your report

3.1.1 Structure and headings

3.1.2 Organising your information

3.1.3 Numbering systems

3.2 Using graphics

To be effective, the numbering system and layout must be **consistent** throughout the report. So if you start out using **Bold 14 point sans serif type** for your major headings, and **Bold 12 point serif type** for your section headings, and *italic 12 point serif type* for your subheadings, make sure you follow this scheme all the way through your report.

Let's practise our numbering skills in the next activity.



Activity 20

Numbering systems

Turn back to Section 2 of this Unit, ‘Characteristics of good reporting’.

1. Using the numbering system in **Example 2** (page 79) renumber Section 2 of this Unit, so that all sections AND subsections are numbered and sections and subsections are clearly identified. List the headings and subheadings below.

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Turn to page 110 for suggested solutions to this activity.



Once you think about using decimal numbers to identify chunks of similar information, then the whole process becomes much easier.

Let's review what we have covered so far in this section.

1. Correct organisation of your report results from:
 - using correct structure and clear heading
 - organising your information
 - using numbering systems.

2. Correct structure and clear headings.

The structure and headings for a report are:

Introductory material	<ul style="list-style-type: none">• Title page• Table of Contents• Summary
Body of report	<ul style="list-style-type: none">• Introduction• Discussion• Conclusions• Recommendations
Concluding material	<ul style="list-style-type: none">• References• Appendices

3. Organising your information

There are three rules for organising your information:

- put similar topics together
- separate different topics
- follow a logical sequence.

4. Numbering systems

Use numbering to:

- help readers know where they are in the report
- give signposts for information that readers may wish to return to again later

Use a decimal system that groups similar chunks of information, eg.

1. Major heading
 - 1.1 Heading
 - 1.1.1 Subheading

Now let's look at another feature of good report writing, using graphics.



3.2 Using graphics

Remember in Unit 2 of this Communication module, '**Processing Information**', we examined the different channels of communication? The three channels we looked at were the verbal channel, the written channel and the non-verbal channel, which included both body language, and graphical representations.

In Section 1 we described graphical representations as signs, pictures, paintings and cartoons that represent a message or thought.

The graphics you can use in reports are a form of non-verbal communication using drawings, photographs, diagrams, plans, maps, tables and graphs to convey information in your report.

We have already mentioned earlier in this Unit that some information such as statistics and numerical information is best presented in graphical form as in financial reports (**Section 1.4 Financial and Budget Reports, 1.5 Technical reports and Specifications reports**).

Other examples of graphics are the graphs and tables contained in the scientific report at Appendix A (page 117) and the diagrams, tables and icons used in this Unit.

Graphics can be used for two main purposes:

- to **present information** that may be difficult to present in written form
- to enhance the **appearance** of your document.

Enhancing the appearance of your document should **never** be the primary reason for including a graphic.

Before we look at specific types of graphics and their uses, let's look at some features of good graphics. Good graphics:

- use accurate and relevant information
- are clearly labelled or captioned to tell the reader at a glance what the graphic is about. A caption is a brief explanation that appears above or under a graphic. Labels may be used in the graphic to identify different elements. Your reader's eyes are usually drawn to graphics included in your text; so make it clear immediately what the graphic is about
- are well produced - poor graphics will detract from the professionalism of your report
- are linked to the content of the report with explanatory text. Graphics alone do not tell the story. There must be some explanation in the report that links the information in the graphics to the purpose of your report
- are linked to the layout of your report so that they become part of the overall design and not just 'add-ons'. To illustrate, look at the way the graphics have been integrated into the text of the scientific report that has been reproduced at Appendix A (page 117).
- have plenty of space given to them. Graphics which are crammed into small spaces in reports are hard to read and the significance of the information they contain is overlooked
- can have lots of colour or different types and fonts to make them visually appealing
- can be reproduced successfully without loss of clarity, especially if you have to make multiple copies of an original document

In long reports it may be necessary to number your graphics so that you can refer to them in the text thereby making them easier to find. The numbering convention for graphics is to use a decimal numbering system, which takes the section, or chapter heading first and then numbers each graphic sequentially. Graphics are called Figures and this can be shortened to *Fig.*

So if you were writing a report, your graphics in Section 2 of your report would be numbered as: Fig. 2.1, Fig. 2.2, Fig. 2.3, etc.

The exception is where the use of a table, which is identified as *Table* and given its own sequential number. This means that in Section 2 of your report not only could you have Fig. 2.1, Fig. 2.2, Fig. 2.3 but you could also have Table 2.1, Table 2.2, Table 2.3, etc.

In a short report it may be useful to use a simple sequential numbering system (1, 2, 3, etc. ...) or alphabetical system (A, B, C, etc. ...) especially if you are using a lot of graphics.

If you have access to a computer, adding graphics to your report becomes much easier.

We shall now look at some of the different types of graphics and their major features.

Photographs

Photographs are useful to give the reader a clear image of something that you may be discussing in your report.

For example, if you were writing a technical report on two motor vehicles your organisation was going to purchase, using photographs to show the two vehicles will help your reader keep the two vehicles distinct from each other as the report is read.

A picture can be better than a written description of an object because:

- the reader can retain that image in his/her memory while reading the report, or at least refer back to it
- it saves space in the report rather than writing a detailed description
- it saves time for the reader

Photographs used in your report must:

- be clear, sharply defined and easy to use. This is particularly important if you are taking your own photographs to put into a report.
- have a caption that clearly identifies what the photograph is about
- be large enough so that detail is clearly visible
- be placed as close to the relevant text as possible

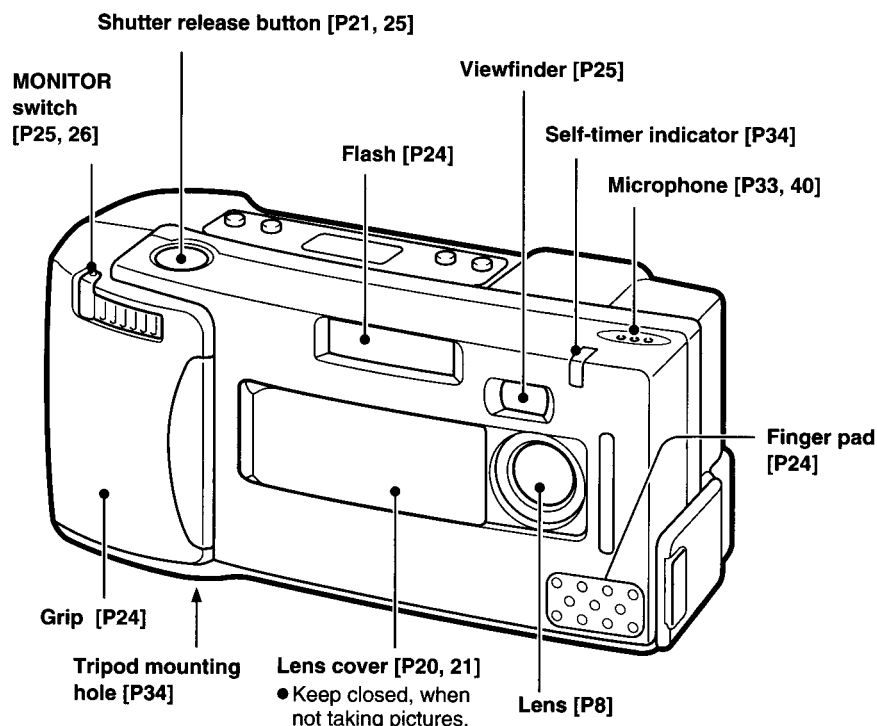
The main problem with using photographs is that they lose clarity when photocopied unless the copying machine is of high quality.

Diagrams

Diagrams are drawings of objects or processes. Diagrams often appear in technical reports where they are used to represent, in a simplified way, complex technical details or processes.

An example of a drawing of a complex process would be a series of diagrams showing how to assemble an electrical circuit.

A simplified representation of a camera with all the parts clearly labelled is an example of a diagram.



Here are the most important features of good diagrams:

- the diagram clearly represents what it is supposed to represent so it must be well drawn
- all parts in the diagram are clearly labelled. The most common way to do this is to use numbered arrows pointing to the features you want to identify (with a number or letter on each arrow). Underneath the diagram is a caption that names what each arrow is pointing to
- each diagram must be large enough so that all parts are clearly marked and can be easily read

Drawings

Drawings are different from diagrams in that they are a more free-hand representation of an object or an idea. Diagrams are used for technical purposes whereas drawings are used more for illustration.

Let's assume you are preparing a report on the introduction of a uniform for teachers at your institution. It would be appropriate to include a drawing of the uniform for your reader's information.



Here are two important features of a good quality drawing:

- it must be well executed so that the reader can see what the drawing is about;
- simple, uncluttered drawings are best, as the detail is likely to be maintained when the report is copied and the clean uncluttered lines are then easier for your audience to interpret.

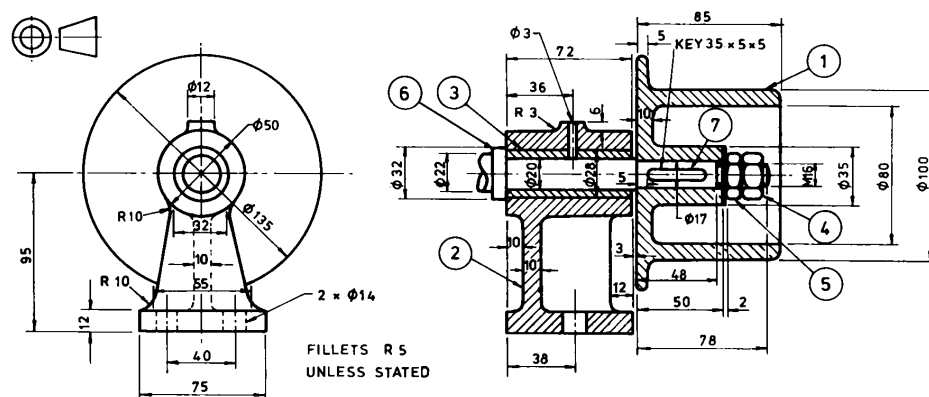
Plans

Plans usually refer to drawings which represent what a structure or machine will look like on completion. They are like diagrams but have much greater detail and are drawn strictly to scale so that they represent the finished product in miniature. Plans are usually included as part of a technical report.

Plans usually take an aerial view, that is, the view you would have if you were looking down on the structure. Sometimes the plan includes a vertical cut-away of a structure as though the structure has been cut in half and you are looking at it from the side.

Plans are usually prepared by a person with specific technical drawing skills unless the plan is a simple one. The kind of plan you could prepare yourself would be a floor plan of a room where you would like to make modifications. But you do need to be careful that the dimensions are accurate and the drawing is clear.

Here is an example of an engineering plan.



Good plans have the following features:

- they are presented in sufficient detail, so that your reader will clearly understand them
- all details of scale and dimension are included for accuracy of interpretation
- plan details are clearly labelled for ease of understanding
- they include legends to explain what the codes represent

Make sure there is plenty of room in your text to include the plan or that you are able to include it as an appendix as most plans are large and do not have the same impact if reduced too much in size.

Plans are usually easy to reproduce. You may lose some print quality on any printing on the plans. There are special copiers to reproduce plans that retain excellent quality.

Maps

Maps are visual representations of geographical features. They are a view of an area taken from above and represented in a diagram, which is drawn strictly to scale. A map is really a miniature version of reality.

Maps can be used to show the detail of a small area or the relationship of a small area to a larger area as in this example:



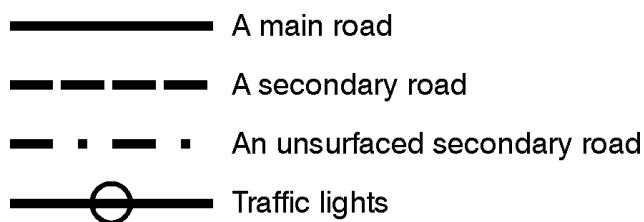
Keetmanshoop may be small in world terms, but it plays a very important role in its region.

Maps are usually readily available from libraries or government sources but it is possible to draw your own simple maps - with care!

Good maps have the following features:

- they have sufficient detail to show the important details without being cluttered
- all details of scale and dimension are included for ease of interpretation
- they are properly labelled
- there is a legend/key which explains what the symbols on the map mean.

For example, on a map of a district these symbols could be used:



Make sure there is plenty of room in your text for a map as it should be large enough so that it can be clearly seen and interpreted.

Again, be careful when reproducing maps as it is easy to lose some of the detail.

Tables

Tables are the most common way of showing large amounts of numerical data in a systematic way that is also easy to read.

Examples of tables have already been used in this Unit in Section 1.4, ***Financial and budget reports*** (page 12), Section 1.5, ***Technical and specifications reports***, (page 19) and in Activity 5 (page 25). Review that information now.

Numbers arranged in columns are much easier to read than numbers included in text as in this example:

Let's assume that you are doing a report on rainfall patterns in your local district over a six-month period. You could explain the information you have gathered in the text:

In the six months from January to June this year, Greentown received a total of 28.5 inches of rain comprised of 3 inches in January, 4 inches in February, 3.5 inches in March, 5 inches in April, 7 inches in May and 6 inches in June. This information contrasts with the rainfall in Greenville which received a total of only 20.5 inches over the same time period: 2 inches in January, 2.5 inches in February, 3 inches in March, 4 inches in April, 5 inches in May and 4 inches in June.

And we haven't even mentioned the two other towns in the district yet!

Can you see the difficulties in presenting numerical data this way? It is difficult to make comparisons between the two towns because the figures for each month are not easy to find and your reader will get lost in a sea of apparently meaningless numbers.

Let's put the same information into a table and see what happens.

Rainfall in inches for 6 month period January to June 1999							
Greentown District	Jan	Feb	Mar	April	May	June	Total Rainfall
Greentown	3	4	3.5	5	7	6	28.5
Greenville	2	2.5	3	4	5	4	20.5
Appletown	2	3	4	4	5	4	22.5
Stableford	2	2	3	4.5	6	5	22.5

The table is much easier to read and it takes less space than trying to list the figures in the text.

Tables should never be left to stand alone in a report. They should always be accompanied by text that discusses the major findings in the table and draws the reader's attention to the important pieces of information or interpretation from the table.

Tables are quite easy to prepare from raw data.

Good tables have the following features:

- the table has a simple layout so it is easy to read
- all the elements in the table are clearly labelled so that the reader knows what each figure represents
- the table has a caption stating its purpose

Again, make sure you give the table the space it deserves in your report so that your reader can see its significance clearly.

Graphs

Graphs are a type of graphic that takes the numerical data contained in tables and presents it in a visual way. For some readers this will be a much easier way to interpret numerical data as they can see the relationships between sets of numbers.

Good graphs have the same features as tables with the following exception: graphs are a valuable means of emphasizing information and providing visual stimulation at the same time, but they may not always be able to give the same complexity of numerical data as a table.

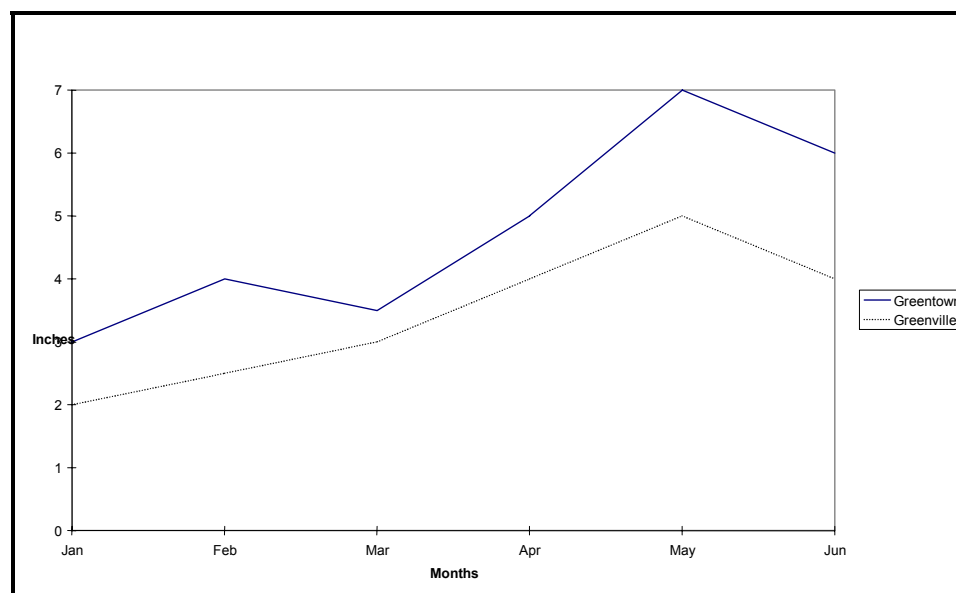
There are several different types of graphs. The ones in most common use are the:

- line graph
- bar graph
- pie chart

The line graph

The line graph shows the variable relationship between two types of data represented on the horizontal and vertical axes of the graph. Most have a single line to plot the data points on the graph but by using different coloured lines or different types of lines, which are clearly labelled, you can have more than one line.

Let's use some of our rainfall data to produce a line graph.



Rainfall in Greentown and Greenville January - June 1999

It is reasonably easy to convert data in a table into a line graph. It helps to have properly measured graph paper but you can achieve the same result with any lined paper, a ruler and a pencil.

Try it for yourself in the next activity.



Activity 21 Using graphics - line graphs

- Using the rainfall table, plot a line graph for Stableford.

Rainfall in inches for 6 month period January to June 1999							
Greentown District	Jan	Feb	Mar	April	May	June	Total Rainfall
Stableford	2	2	3	4.5	6	5	22.5

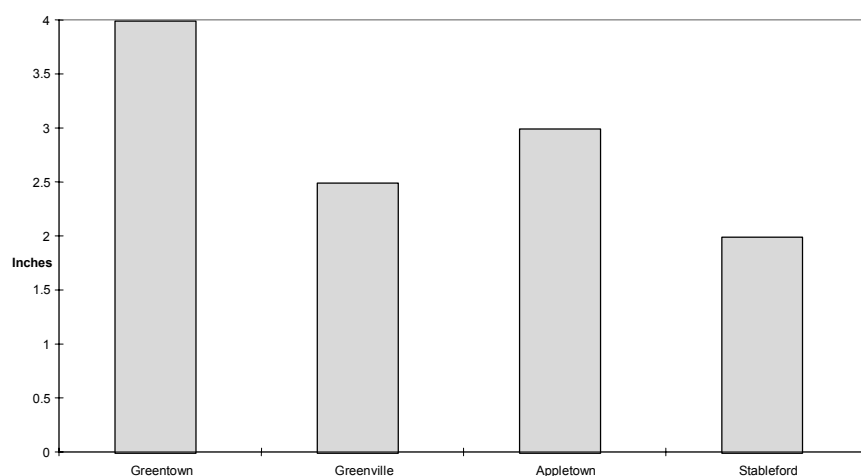
Turn to page 110 for suggested solutions for this activity.



Bar graphs

Bar graphs are useful for showing the relationships between items at a single point in time. It can take raw data, divide it into groups and then show the relationships between those groups in a graph that uses bars or blocks.

An example may explain this more clearly. Once again, we'll use our rainfall data but use it for only one month, February.



Comparison of rainfall data for month of February in Greentown District

It is not possible to use a bar graph to show information over time but it can visually represent data for a single point in time.

If you would like to practise, use another month from the rainfall table and make your own bar graph.

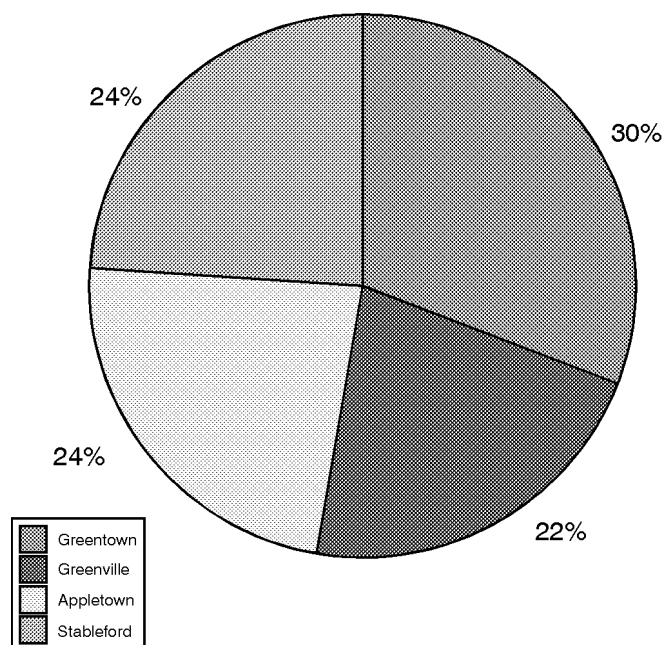
Pie charts

Pie charts are useful for demonstrating how a whole is divided up into its component parts at a point in time. It shows visually what share of the whole each component part has.

Pie charts are usually expressed in percentages with 100% being the whole and the parts being lesser amounts that when added together make 100%. The whole, however, doesn't have to be expressed as a percentage, as long as it is the total of a number of parts and those parts can be clearly shown.

Again, an example might make this clearer.

Once again turning to our rainfall data, let's construct a pie chart that shows what percentage of the total rainfall (the whole) that each town in the district received.



Percentage of total rainfall - Greentown District - January - June 1999

Pie charts aren't as easy to prepare as line or bar graphs. If you have a computer with the appropriate software it is easy, but if you haven't it is probably easier to use a bar graph instead.

Let's now return to preparing your assessment report and this time consider using graphics in your report.



Activity 22

Use of graphics

In Activity 18 (page 69), you spent some time determining the structure of your report and the headings you would use. Take some time now to jot down any examples of graphics that you think would be appropriate in the Discussion part of your report.

1. Make a note of these on the pages set aside for planning your discussion.
2. Consider possible sources of this information and make a list.



Before we move on to examine the third feature of good report writing, ***Appropriate style***, let's quickly review what we have covered in this section on graphics.

Good reports may include graphics for two main reasons:

- to present information that may be difficult to present in written form;
- to enhance the appearance of the document.

Good graphics:

- use accurate and relevant information
- are clearly labelled
- are well produced
- are linked to the content of the report with explanatory text
- are linked to the layout of the text
- have plenty of space given to them
- use colour and different type styles and fonts
- can be reproduced without loss of clarity

In long reports, use a decimal numbering system to number your Figures and Tables.

There are many different types of graphics. Those examined in detail in this Unit are:

- photographs
- diagrams
- drawings
- plans
- maps
- tables
- graphs, of which there are three main types - line graphs, bar graphs and pie charts.



3.3 Appropriate Style

In Section 1 of this Unit, we defined a report as:

a written presentation that organises and analyses information... and presents it in a standardised format.

A report is a formal document that seeks to examine an issue, draw conclusions and, sometimes, make recommendations for a future course of action. The issues identified in the report are expected to be analysed objectively with conclusions and recommendations drawn only from this analysis.

Reports are not expected to be personal documents and the accepted convention for all written reports is that the writer's personality should not in any way intrude into the document.

Reports are meant to be concise and factual, giving the reader precisely the data required and using language that is precise and unemotional.

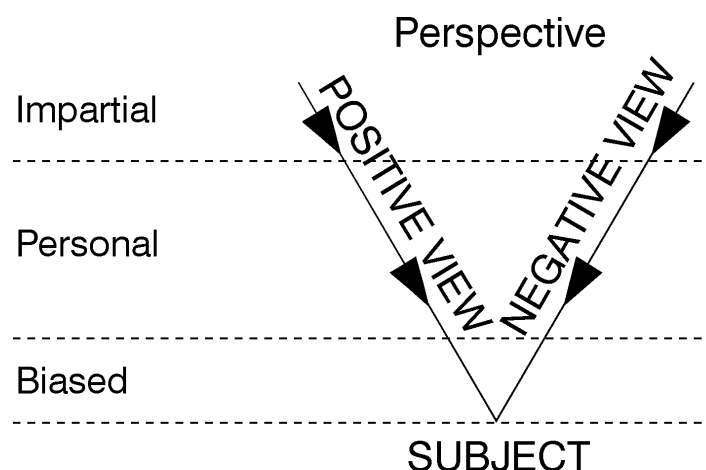
This leads us to consider three features of appropriate style:

- impersonal tone
- specific instead of general language
- use of lists.

We shall examine the tone of the report first.

The impersonal tone

In Unit 1.2, ***Processing information***, Section 3.2, we discussed perspective and bias and how we could identify a writer's attitude towards the subject matter. We used this graphic as a means of describing the writer's attitude:



One of the ways we can identify a writer's perspective is by examining the way the writer uses grammar to distance himself/herself from the subject matter, in particular, the use of pronouns. Let's look at an example:

How impersonal are these examples? Use the space under each sentence to write your decision.

1. *From the test data analysed in this report, I think that the Bundywag 4000 gives better performance overall.*

2. *From the test data analysed in this report, the Bundywag 4000 gives a better performance overall.*

Sentence 1 - expresses a personal opinion using 'I think ...'

Sentence 2 - uses an impersonal tone without the use of personal pronouns at all.

The emphasis in the first sentence is on the 'I think', which changes the sentence from a consideration of the factual information to a personal opinion. The emphasis in the second sentence is on the facts alone and this increases the impact of the test data. 'I think' is a redundant phrase and should not be used as it takes away from the persuasiveness of the test data.

It is the accepted convention that in report writing the writer avoids the use of personal pronouns, such as I, me, my, we, and adopts an impersonal tone.

In Section 3.4 of Unit 1.2, **Processing information**, we discussed how to differentiate fact from opinion. Fact is easily tested and can be proven with objective data. It may be helpful to review this information before you write your assessment report.

Reports allocate specific sections for specific purposes. The discussion part of your report is for the presentation of factual evidence. This should be presented in an impersonal tone so that your reader can assess the data objectively.

The only place where the personality of the writer is allowed to intrude is in the conclusions section of the report where it is permissible to express an opinion **based on the evidence collected**. Facts and opinions should be clearly separated in your report.

This is the style you will need to use in your assessment report.

Let's try rewriting from the *personal* to the *impersonal* in this next activity.



Activity 23

Appropriate style - impersonal tone

Read the following sentences and rewrite them using the impersonal tone.

1. I recommend the following steps be taken to solve the problem.

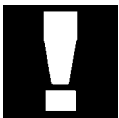
2. We think the new structure should be implemented from January 2002.

3. In my opinion, the Snafflebanger 300 is the best machine for the job.

4. I arranged for stress tests to be conducted on the suspect bricks.

5. I consider the proposal to merge the departments to be in the best interests of the organization.

Turn to page 111 for suggested solutions to this activity.



Remember

Use the impersonal tone in your report writing so that the emphasis in your report is on the facts you are presenting and not on your opinion. We can now move on to examine the use of appropriate language.



General vs. specific language

We have already discussed some aspects of the use of language in Section 2.2 of this Unit where we demonstrated that two of the characteristics of a good report are that it is complete and concise. In that section, we stated that to be **complete**, a report should say all that you want it to say and to be **concise**, it should say it as quickly and as economically as possible.

As well as being complete and concise, there is another dimension to the language that should be used in your report: the language chosen should be **impartial**, **unemotional** and **specific**.

Good reports have language which:

- uses specific rather than general language such as:

General term	Specific term
machine	colour photocopier
fruit	apple
staff	clerical assistants grade 2

- avoids vague terms or 'wishy-washy' qualifiers such as: *reasonably priced, fairly new, may be suitable, satisfactory performance*
- avoids the use of emotive terms and judgmental language such as: *good, bad, right, wrong, unfair, uncooperative*
- uses **concrete** rather than **abstract** terms as illustrated below:
 1. *Several staff will need to be trained before the machine is installed.*
 2. *Fred Brown, Peter Jones and Joan Smith will need to be trained to operate the Snafflebanger 300 before the machine is installed in June.*

Which sentence do you think contains the concrete rather than the abstract terms?

Sentence 2 contains the concrete terms and therefore gives much more specific information to the reader.

Using precise language contributes to the objectivity of your report and lets the facts speak for themselves.



Activity 24

General versus specific language

Read the following sentences. Rewrite them replacing any general language with appropriate specific language.

1. The machine can be delivered at short notice.

2. Workers are dissatisfied with the new food in the canteen.

3. Training on the new machine will begin for staff shortly.

4. The new personnel are performing satisfactorily.

5. Moving the Greentown branch to Greenville has turned out to be a bad move.

Turn to page 111 for suggested solutions to this activity.

Let's look at the final aspect of appropriate style, using lists.



Lists

One method of achieving conciseness in your report is to convert some of the text to a list format. This technique has been used extensively throughout this document to:

- present information more clearly
- break up the look of solid text

Skim through this document and look at the ways in which lists can be presented.

Not all the text is in list format. This document would look like a collection of notes or a summary and would be as tedious to read as solid text. But some information seems to naturally form lists. Here is an example:

The major reasons for using graphics are that some information is best presented in graphical form and graphics enhance the appearance of a document.

This sentence can be converted to list format.

The major reasons for using graphics are:

- *some information is best presented in graphical form*
- *graphics enhance the appearance of a document*

The same sentence can be presented using a numbered format:

The major reasons for using graphics are:

1. *some information is best presented in graphical form*
2. *graphics enhance the appearance of a document*

There are two points to remember when converting text to a list:

- don't forget to use the colon to separate the listed information from the rest of the sentence
- decide on one single format for presenting lists in your text and then stick to that format. Changing the format each time you insert a list looks messy.

Before we go on to examine the next feature of good report writing, ***ethical report writing***, let's quickly review this section on appropriate style.

Reports are factual documents that should be written and read objectively.

There are three features that contribute to this objectivity:

- impersonal tone
- general versus specific language
- use of lists



3.4 Ethical report writing

Lastly in our consideration of report writing is the issue of *ethics*.

One of the features of a good report is that it conforms to accepted ethical standards.

Ethics in report writing refers to presenting the information in the report as honestly as possible, keeping it free from personal bias and distortions or omissions.

Especially when you are the sole reporter on an issue, the onus is on you to monitor your report to see that you do conform to ethical standards.

There have been several notorious cases in academia of scientists falsifying research. These cases have resulted in both the research and the scientists themselves being discredited.

We have already mentioned some issues earlier in this Unit (Section 2.1) that are relevant to an ethical approach to report writing. These are:

- acknowledging the sources of the information gathered for your report
- maintaining confidentiality when you are conducting interviews and surveys or administering questionnaires, unless you have the permission of the respondent to disclose their specific opinions

Ethical report writers are aware of three pitfalls to avoid:

- omissions
- false information
- distortions or changes of emphasis.

We shall look at each of these in a little more detail.

Omissions

Whether by accident or on purpose, omissions detract from the integrity of your report and from your own honesty.

An omission refers to either the accidental or deliberate presentation of ***incomplete information*** in a report. Omissions can occur for a variety of reasons. Here are a few possible reasons:

- poor planning
- insufficient research
- accidental exclusions caused by an over-enthusiastic desire to be brief
- a desire to make one side of an argument more appealing by omitting evidence.

To avoid this pitfall, proofread your report thoroughly and ask a friend or colleague to do the same.

Thorough planning and research and a conscientious commitment to present both sides of a case should ensure your reputation as a writer of integrity.

False information

False information is used because of laziness, a desire to gain credit for particular research, or a desire to influence the outcome of a report.

When you are writing *or* reading a report make sure:

- the sources of the information are acknowledged
- the information comes from reliable and credible sources
- corroborative evidence from other sources can be found
- the methods used to collect and interpret information are documented.

Distortions or changes of emphasis

Distortions or changes of emphasis are usually done to bias an argument in favour of one side by emphasising the positive aspects of one side of an argument and playing down the positive or emphasising the negative aspects of the other side.

Again, this can be accidental as a result of unintentional bias, or deliberately done to influence the outcome of a report.

To guard against unintentional distortions, review your information carefully to make sure that you have given appropriate weight to each side of the argument and have sought evidence that confirms your findings from more than one source.

It is easy to write ethical reports if you, as the writer, are aware of some of the possible outcomes if your approach to writing the report is not thorough and objective.

This last activity is more for interest. It does help to build your library skills and it will give you information on the consequences of unethical report writing. So go for it!



Activity 25

Ethical report writing

One of the most famous cases of falsifying academic research is that of 'Piltdown Man'. This was research done by a British scientist earlier this century that was later shown to be false.

1. Research 'Piltdown Man' in your local library.
2. Find out how the fraud was made and how the fraud was discovered.

3. What were the consequences for the scientist involved?



Summary

Features of good report writing include:

- correct organisation of your report
- use of graphics
- an appropriate style
- ethical report writing

Correct organisation of your report requires:

- using correct structure and clear headings
- organising your information
- using numbering systems

Correct structure and clear headings

The structure and headings for a report are:

Introductory material	<ul style="list-style-type: none">• Title page• Table of Contents• Summary
Body of report	<ul style="list-style-type: none">• Introduction• Discussion• Conclusions• Recommendations
Concluding material	<ul style="list-style-type: none">• References• Appendices

Organising your information

There are three rules for organising your information:

- put similar topics together
- separate different topics
- follow a logical sequence

Numbering systems

Good reports use a numbering system to:

- help readers know where they are in the report
- give signposts for information that readers may wish to return to later

Good reports use a decimal system that groups similar chunks of information, eg.

2. Major heading

2.1 Heading

2.1.1 Subheading

Use of graphics

Good reports have graphics for two main reasons:

- to present information that may be difficult to present in written form;
- to enhance the appearance of the document.

Good graphics

- use accurate and relevant information
- are clearly labelled
- are well produced
- are linked to the content of the report with explanatory text
- are linked to the layout of the text
- have plenty of space given to them
- use colour and different type styles and fonts
- can be reproduced without loss of clarity

In long reports, a decimal numbering system is also used to number Figures and Tables.

There are many different types of graphics. Those examined in detail were:

- photographs
- diagrams
- drawings
- plans
- maps
- tables
- graphs, of which there are three main types: line graphs, bar graphs and pie charts.

Appropriate style

Reports are factual documents that should be written and read objectively.

There are three features that contribute to this objectivity:

- impersonal tone
- specific instead of general language
- use of lists.

Ethical report writing

Ethics refers to presenting the information in a report as honestly as possible, keeping it free from personal bias, distortions and omissions.

Be aware of three possible pitfalls:

- omissions - incomplete information
- false information
- distortions or changes of emphasis - usually done to bias an argument in favour of one side



Check your progress

1. List four features of a good report.

(1) _____

(2) _____

(3) _____

(4) _____

2. Outline the basic structure of a report.

3. Give two reasons for using graphics in a report.

(1) _____

(2) _____

4. List five of the eight guidelines for using graphics.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

5. Name and describe three types of graphs that could be used in a report.

(1) _____

(2) _____

(3) _____

6. What are the three features that contribute to appropriate style?

(1) _____

(2) _____

(3) _____

7. What are the three pitfalls to avoid if a report is to remain ethical?

(1) _____

(2) _____

(3) _____



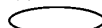
Suggested solutions to activities

Activity 3 – refer to page 17

Budget reporting

(Questions 1-3)

ABC123 Kindergarten			
Financial Report December 1998			
Financial Year January to December			
	Month of:		
Income	Dec-98	Year to Date	Budget 1998
Attendance	\$ 50.00	\$ 32,078.36	\$ 32,575.00
Enrolment & Waiting List	\$ 10.00	\$ 818.00	\$ 600.00
Membership	\$ -	\$ 470.00	\$ 400.00
Cleaning Levies	\$ -	\$ 2,971.05	\$ 3,000.00
Interest	\$ 27.15	\$ 333.37	\$ 600.00
Maintenance Roster	\$ -	\$ 1,625.00	\$ 1,000.00
Parents Roster	\$ -	\$ 1,250.00	\$ 1,000.00
Equipment Levy	\$ -	\$ 4,137.75	\$ 4,000.00
Library Levy	\$ -	\$ 499.05	\$ 400.00
Government Grant	\$ 13,493.00	\$ 55,349.00	\$ 53,600.00
Fundraising	\$ 194.45	\$ 2,242.35	\$ 1,500.00
Sundry Income	\$ -	\$ 439.95	\$ 100.00
TOTAL INCOME	\$ 13,643.00	\$ 103,523.08	\$ 98,875.00
Expenses	\$ 159.86	\$ 551.45	\$ 500.00
Administration Consumables	\$ -	\$ 332.00	\$ 150.00
Advertising	\$ -	\$ 1,625.00	\$ 1,490.00
Affiliation Fees	\$ -	\$ * 250.00	\$ 300.00
Audit Fees	\$ -	\$ -	\$ 1,200.00
Minor Asset Purchases	\$ -	\$ 1,775.00	\$ 1,500.00
Cleaning	\$ 402.00	\$ 3,108.00	\$ 3,000.00
Consumables	\$ 563.05	\$ 1,595.73	\$ 1,100.00
Depreciation	\$ -	\$ 2,605.00	\$ 1,000.00
Donations & Gifts	\$ 10.00	\$ 156.50	\$ 100.00
Equipment	\$ -	\$ * 923.88	\$ 3,000.00
Insurance	\$ 46.38	\$ 1,923.56	\$ 1,800.00
Library	\$ -	\$ 576.30	\$ 500.00
Maintenance Roster Refunds	\$ -	\$ * 625.00	\$ 1,000.00
Parents Roster Refunds	\$ -	\$ 50.00	\$ -
Permits, Licences and Fees	\$ 300.00	\$ 583.00	\$ 400.00
Petty Cash	\$ 100.00	\$ 918.95	\$ 750.00
Provision for Long Service Leave	\$ -	\$ 1,950.00	\$ 1,950.00
Provision for Sick Leave	\$ -	\$ 1,500.00	\$ 1,500.00
Rates, Electricity, Telephone, Lease	\$ -	\$ 2,343.00	\$ 2,300.00
Relief Staff	\$ 141.00	\$ 3,046.43	\$ 1,780.00
Repairs & Maintenance	\$ -	\$ * 475.49	\$ 1,250.00
Staff Training	\$ 30.00	\$ 780.00	\$ 330.00
Sundry Expenses	\$ 42.84	\$ 856.55	\$ 750.00
Superannuation	\$ 244.96	\$ * 4,127.65	\$ 4,355.00
Wages	\$ 5,744.95	\$ 69,227.38	\$ 67,000.00
Workers Compensation	\$ -	\$ * 354.50	\$ 520.00
Yard Maintenance	\$ 10.00	\$ * 381.15	\$ 500.00
TOTAL EXPENSES	\$ 7,795.04	\$ 105,246.52	\$ 100,025.00
Operating Surplus/(Deficiency)	\$ 5,839.56	\$ 881.36	-\$ 1,150.00

 over
 under
 met

4) The kindergarten has a small surplus of \$881

Activity 4 - refer to page 22**Technical reports and specifications**

There are no correct answers to this activity, but here are some suggested answers:

- ask a friend or relative who knows about cars to explain
- ask a mechanic at your local garage
- if your institution has an engineering section, ask one of the staff
- check with your local library for simple texts on car maintenance which should explain these terms.

Activity 5 - refer to page 25**Statistical reports - reading statistical tables**

1. There has been:
 - a slight increase in the percentage of couples choosing to have no children
 - a slight decrease in the percentage of couples choosing to have one child
 - an increase in the percentage of couples choosing to have two children
 - no significant increase or decrease in the percentage of couples having three children
 - a decrease in the percentage of couples choosing to have four or more children.

Activity 8 - refer to page 40**Defining the reporting task**

1. An evaluation report with conclusions, not recommendations.
2. Management of XYZ Company.
3. Deadline six weeks.
4.
 - resources limited to you
 - confidentiality
 - reason or reasons for increase in maintenance costs
 - any difficulties staff may be having with the system.

Activity 9 - refer to page 47**The preliminary plan**

1.
 - historical picture of maintenance
 - reasons for increases in costs
 - staff difficulties with system.
2. There are no correct answers to this question but here are some suggested answers:
 - company's maintenance records
 - monthly reports to management
 - approach staff using either an interview or questionnaire depending on numbers
 - a long shot - but you may be able to get information from the company who does the computer maintenance.

Activity 11 - refer to page 52**Conciseness and readability**

With regard to the matter of the wage increase for office personnel, I consider that at this point in time it is not in the best interests of the organization to consider this proposal seriously on the basis of the current economic situation.

About the wage increase for office personnel, I consider that now is not an appropriate time to consider a wage increase because of the current economic situation.

Activity 12 - refer to page 53**Basic grammar**

1. We are borrowing my friend's car
2. Jim was wearing a blue shirt.
3. I will wear my new clothes
4. Present
5. Past
6. Future
7. Plural
8. Singular
9. Singular

Activity 13 - refer to page 54**Spelling**

- | | | |
|----|------------|-----------|
| 1. | Calender | calendar |
| 2. | Commitee | committee |
| 4. | Febuary | February |
| 7. | Proceedure | procedure |
| 8. | Redudent | redundant |

Activity 14 - refer to page 56**Punctuation**

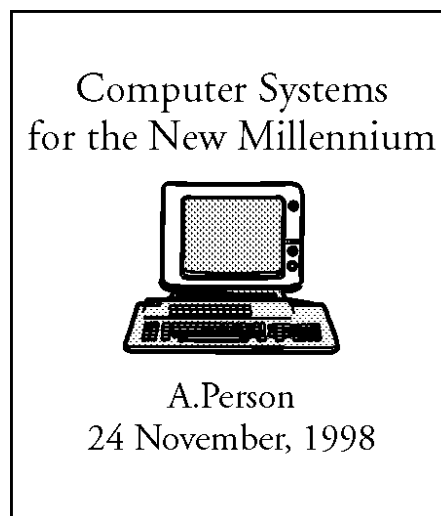
1. Wake up, Jeff.
2. We are going to go hunting, Jan.
3. After spending the morning swimming, the children were too tired to play.
4. Jan walked down the cold, dark, creepy hallway.
5. We bought pens, paper, glue, erasers and chocolate.
6. We worked hard on the project, and received a good grade from our tutor.
7. Tom was usually a very good student, but fell asleep during lectures a lot.
8. When she first got her driving permit, Alice was too nervous to drive.

Activity 15 - refer to page 57**The colon**

1. The accused woman exclaimed: 'I am innocent.'
2. There are five phases of the moon: new moon, first quarter, half moon, last quarter and full moon.
3. There are several uses for the colon. For example: to separate an example from the rest of the sentence.
4. Peter was very angry with the car repairer: the fault was still not fixed after the third attempt.
5. I have just two things to say to you: keep your shoulder to the wheel and your nose to the grindstone.

Activity 16 - refer to page 58**The apostrophe**

1. Children's shoes are very expensive.
2. It's getting late so give the dog its bone. (The first 'its' has an apostrophe because it means 'it is'. The second 'its' is the possessive form and doesn't have an apostrophe.)
3. Have you got your umbrella? (No apostrophe required.)
4. These are the new clients' files. (Could also be singular: client's files.)
5. We are playing soccer at Carol's house.
6. Don't say you haven't been warned.
7. This is Francis's big brother, Fred.
8. Let's go and play.
9. Pick up the boys' towels from the floor please.
10. I've got your violin and its case at my house. (The possessive 'its' doesn't have an apostrophe.)

Activity 17 - refer to page 61**Presentation****Activity 19 - refer to page 71****Organising your information**

1.
 - historical data re maintenance
 - staff survey re current state of the computer system.

Activity 20 - refer to page 75**Numbering systems****Section 2 Characteristics of good reporting****2.1 Good research**

- 2.1.1 Define the task
- 2.1.2 Prepare a preliminary plan
- 2.1.3 Determine information sources

2.2 Complete and concise**2.3 Grammar, punctuation and spelling**

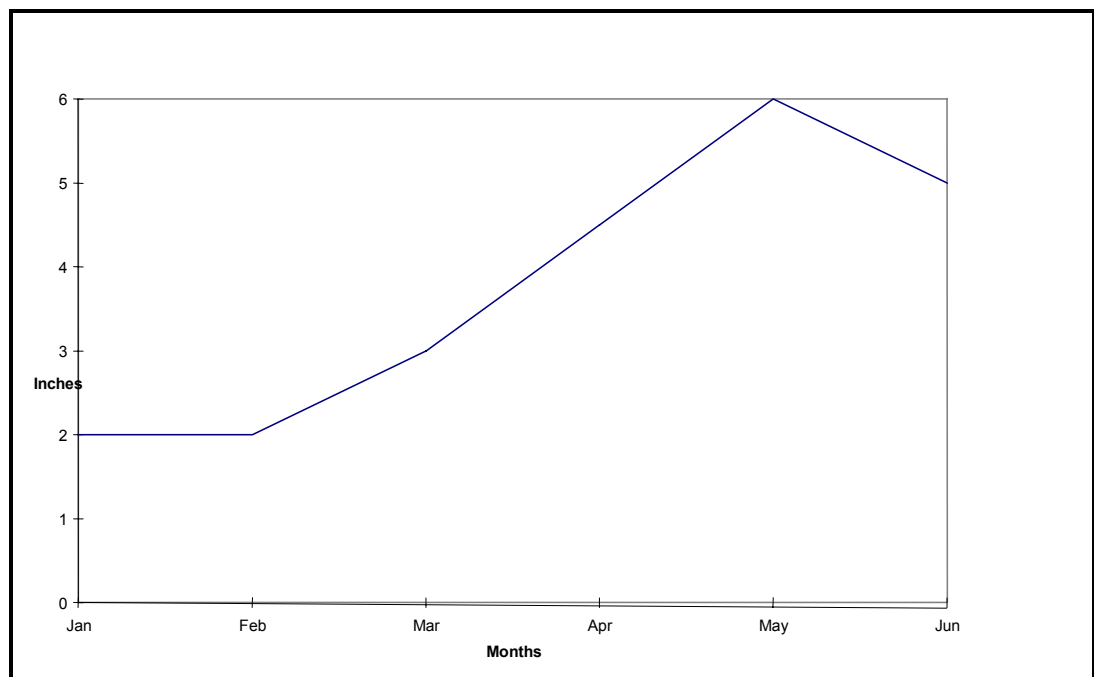
- 2.3.1 Grammar
- 2.3.2 Spelling
- 2.3.3 Punctuation
 - 2.3.3.1 The comma
 - 2.3.3.2 The colon
 - 2.3.3.3 The apostrophe

2.4 Attractive presentation

- 2.4.1 Layout
- 2.4.2 Print style
- 2.4.3 Packaging

Activity 21 - refer to page 87**Using graphs - line graphs**

Your graph should look like this:



Rainfall in inches for the town of Stableford, January - June 1998

Activity 23 - refer to page 93**Appropriate style - impersonal tone**

1. The following steps are recommended to solve the problem.
2. The new structure should be implemented from January 2002.
3. Based on these test results, the Snafflebanger 300 is the best machine for the job.

OR

The Snafflebanger 300 is the best machine for the job.

4. Stress tests were conducted on the suspect bricks.
5. The proposal to merge the departments is in the best interests of the organization.

Activity 24 - refer to page 95**Specific instead of general language**

These sentences are suggested answers to these questions. As long as you have changed the general words used to appropriate specific words then you are correct!

1. The photocopier can be delivered within three working days.
2. The bus drivers are dissatisfied with the new range of low-fat, health foods in the canteen.
3. Training in the use of the colour photocopier will begin on the 4th April for all staff in the administration section.
4. The three new staff in Finance Section, Fred, Tom and Jean, have achieved 75% of a normal expected workload after 2 weeks on the job.
5. Moving the Greentown branch to Greenville has resulted in four resignations and a 32% increase in sick leave.

Assessment



You are now ready to complete your assessment for this Unit.

If you have not already negotiated a topic for your written assignment with your tutor, please do so now.

Please contact your tutor to arrange a suitable time to complete the assignment.

Assessment



Your assessment for this module will consist of a **written assignment**. Check with your tutor to organise a suitable time to complete the assignment.

You are now ready to complete your assessment for this unit.

Written Assignment

To be completed and sent to your tutor for assessment.

1. Write a report of an activity related to your specific field of teaching expertise suitable for presentation to the management body of your organisation/institution. The report must adhere to the principles of report writing as outlined in this Unit.

The topic of this report must be negotiated with your tutor before you begin.

2. Identify and describe four characteristics consistent with clear and logical report writing.

The next two questions should be answered from the Written Exam Worksheet, which your tutor will send you upon request.

3. Match the six types of reports listed on the Worksheet with their correct description and uses.
4. Analyse the accompanying report. Evaluate the following aspects of the report:
 - Structure and headings
 - Numbering
 - Presentation
 - Grammar, spelling and punctuation
 - Information sources
 - Style and language
 - (1) Give reasons for any limitations or omissions that you observe.
 - (2) Identify any noteworthy aspects of the report.

Appendix

THE EFFECT OF RAINFALL DURING GESTATION ON THE CALVING ABILITY OF EXTENSIVELY GRAZED BEEF HEIFERS

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ABSTRACT

The aim of this investigation was to determine if the amount of rainfall experienced by extensively grazed beef heifers during gestation affected their subsequent calving ability. Data was recorded for 594 beef heifers and included breed, monthly rainfall figures during gestation, date of first calving and calf birth weight.

Data analysis indicates that heifers experiencing above average rainfall in the first two trimesters followed by below average rainfall in the third trimester appear to have lower calf birth weights and moderate calving assistance. This is in contrast to heifers experiencing below average rainfall in the first two trimesters followed by above average rainfall in the third trimester that experience higher mean calf birth weights and high levels of calving assistance. The inference is that pasture quality and nutrition mediate the effect.

INTRODUCTION

The majority of beef heifers in the Waggamba Shire (in Southeast Queensland) are grazed on non-irrigated pasture or forage crop. Therefore, the nutrition available to the heifer depends heavily on the rainfall received. Reports in the literature indicate the occurrence of dystocia in beef heifers can vary depending on the type of rainfall season (1-3). Specifically, the suggestion has been made that the occurrence of dystocia may be greater after good drought breaking rains in late pregnancy. In these situations, heifers have been undernourished throughout most of the pregnancy except for good nutrition in the last month or so. However there is a lack of firm evidence to help identify the exact seasonal circumstances that lead to increased dystocia.

The specific aim of this investigation was to collect and analyse as much rainfall information as possible during joining, gestation and parturition in beef heifers. A retrospective study was conducted to determine if the amount of rainfall during gestation affected the incidence of dystocia in beef heifers.

MATERIALS AND METHODS

Data was collected from five properties in the Waggamba Shire of Southeast Queensland, and two properties in South Australia. Unpublished data collected in 1975 from four properties in the Roma district of Southeast Queensland was also included. The majority of heifers were Hereford, Hereford-cross or Angus. The information collected for each heifer included; identification, property of origin, breed, body weight at approximately 12 months, date of first calving, birth weight of the calf, sex of the calf and monthly rainfall figures of the property for the gestation period.

The first calving was classified as either assisted or unassisted, with an assisted calving being considered dystocia. For this analysis, the type of assistance was not considered relevant since the objective was to

identify contributory factors to dystocia, not to categorise severity. An area of subjectivity that could not be avoided was the owner or manager's interpretation of when assistance was necessary, requiring classification to be based on the owner's judgement. However, with such a large sample size, the presence of one or two heifers being assisted unnecessarily should not significantly influence attempts to identify general factors contributing to dystocia.

Calf birth weight was usually measured on the day of calving, but results were included for calves weighed up to two days postpartum.

The rainfall received during the three trimesters of pregnancy was calculated for each heifer with known calving dates as follows:

Based on the calving date, a mean gestation period of 283 days was used to calculate an approximate conception date for each heifer. The gestation period was divided into trimesters consisting of the, "Joining to Three Months, Three to Six Months, and Six Months to Calving" categories. Rainfall for each of these periods was calculated from two weeks prior to the commencement of the period, to two weeks before the end of the period to allow for a lag period between the fall of rain and the anticipated improvement in pasture quality. This was an arbitrary modification based on personal experience with pasture response after rain in this district. The available rainfall data consisted of monthly totals. Fortnightly rainfall totals for each period were calculated by simply dividing monthly totals by two as necessary. It is recognized that the rainfall for any given month is not evenly distributed and that there is a degree of error in this calculation. However increasing the accuracy by recording daily rainfall would have meant far less data collection and an increased effort required from the cooperating properties.

For part of the analysis, rainfall categories were arbitrarily described as either high or low. A heifer was considered to have experienced a high rainfall season for any trimester of pregnancy if the rainfall she was exposed to was greater than the mean rainfall for all recorded heifers in that trimester. Similarly, a heifer was considered to have experienced a low rainfall season if the rainfall she was exposed to was less than the mean rainfall for all recorded heifers in that trimester. The means and standard errors for rainfall in each trimester are presented in Table 3.

To increase the discrimination between heifers experiencing high or low rainfall, the upper and lower quartiles of the rainfall for each trimester were used as an alternative method of defining good and poor seasons. Only heifers experiencing rainfall within these quartiles were included in this alternate analysis.

Data was organized into a relational database for ease of analysis. This allowed rapid identification of associations between the parameters.

Information was gathered on a total of 1600 heifers, however not all cases had complete records. For each result reported, the number of heifers in the dataset is noted.

RESULTS

The Effect Of Rainfall Volume At Different Stages Of Gestation On Dystocia And Calf Birth Weight

There were 594 records containing information on rainfall for each trimester of each heifer's gestation, and the subsequent delivery type. Multiple analysis of variance including rainfall for each of the three trimesters revealed a significant difference ($p < 0.01$) when heifers were grouped by delivery type. The means are displayed in Table 1. This identified a pattern of assisted calvings having lower rainfall in the second trimester and higher rainfall in the third trimester compared to unassisted contemporaries.

Table 1 Rainfall means for each trimester based on delivery type (Rao R (3,589)=5.46; $p < 0.0010$)

Delivery type	1st Trimester	2nd Trimester	3rd Trimester
Unassisted	228.00	98.61	76.13
Assisted	228.62	82.78	86.69

Separate investigation of each trimester using analysis of variance demonstrated that rainfall in the second trimester was significantly lower for assisted compared to unassisted calvings ($p < 0.03$). The results of this analysis are shown in Table 2. The mean rainfall in the second trimester was 82.8 mm and 98.6 mm for assisted and unassisted calvings respectively. It is worth noting that although not significantly different ($p = 0.09$) there appears to be a trend for higher rainfall in the third trimester with assisted calvings. This warrants further data collection and investigation.

Table 2 ANOVA of rainfall in each trimester based on delivery type.

	Mean sq Error	Mean sq Error	F(df1,2) 1,591	p-level
1st Tri	36.64	6581.618	.005567	.940546
2nd Tri	23553.03	4693.411	5.018318	.025451
3rd Tri	10462.30	3739.374	2.797875	.094919

There were 686 records that contained information on rainfall for each trimester of the heifer pregnancies and the associated calf birth weight. The mean rainfall during each trimester and the mean calf birth weights for heifers exposed to rainfall above and below the mean (high and low rainfall respectively) as described in the Materials and methods are shown in Table 3.

Table 3 A comparison of rainfall during each trimester of gestation and mean calf birth weight

	1st Tri	2nd Tri	3rd Tri
Mean Rainfall (mm)	218.2 (S.E.=3)	106.3 (S.E.=2.5)	79.6 (S.E.=2.16)
Mean calf birth weight (Kg) when rainfall is < the mean (low rainfall)	31.8 * (S.E.=0.24, n=337)	30.8 (S.E.=0.2, n=441)	30.6 ** (S.E.=0.21, n=401)
Mean calf birth weight (Kg) when rainfall is > the mean (high rainfall)	30.2 * (S.E.=0.23, n=349)	31.3 (S.E.=0.29, n=245)	31.5 ** (S.E.=0.26, n=285)

* Significant difference at $P < 0.01$. ** Significant difference at $P < 0.02$.

To improve discrimination, only calf birth weights from heifers experiencing rainfall in the upper and lower quartiles for each trimester were analysed. Table 4 displays mean calf birth weights for heifers exposed to the upper and lower quartiles for each trimester of gestation.

Table 4 Mean calf birthweights from heifers experiencing rainfall in the upper and lower quartiles of each trimester.

	1st Tri	2nd Tri	3rd Tri
Lower and Upper Quartiles (mm)	165 and 280.5	53 and 141.5	36.5 and 104
Mean calf birth weight (Kg) when rainfall is within the lower quartile (low rainfall)	32.2 * (S.E.=0.44, n=133)	31.4 (S.E.=0.37, n=151)	31.4 (S.E.=0.31, n=152)
Mean calf birth weight (kg) when rainfall is within the upper quartile (high rainfall)	29 * (S.E.=0.29, n=164)	31.9 (S.E.=0.42, n=132)	31.7 (S.E.=0.34, n=154)

* Significant difference at $P < 0.01$.

There were 594 records that contained complete information on rainfall for each trimester of the heifer pregnancies and the associated delivery type. The mean rainfall during each trimester and the percentage of assisted deliveries for heifers exposed to rainfall above and below the mean (high and low rainfall respectively) as described in the Materials and methods are shown in Table 5.

Table 5 A comparison of rainfall during each trimester of gestation and the percentage of assisted deliveries.

	1st Tri	2nd Tri	3rd Tri
Mean Rainfall (mm)	240.9 (S.D.=77.2)	79.8 (S.D.=45.3)	67.7 (S.D.=43.7)
Percent assisted (rainfall < the mean - low rainfall)	20.3%	22.3% *	14.5% **
Percent assisted (rainfall > the mean - high rainfall)	19.1%	14.1% *	26.1% **

* Significantly different at $p < 0.02$. ** Significantly different at $p < 0.01$.

Chi-squared analysis on assisted birth numbers in the second trimester rainfall category resulted in a value of 5.28 for 1 degree of freedom. In the third trimester rainfall category, the result was 12.6 for 1 degree of freedom. The results show a significantly different percentage of assisted births between these rainfall groups at $p < 0.05$ and $p < 0.01$ respectively, demonstrating that significantly more heifers require assistance when rainfall in the second trimester is less than the mean, and rainfall in the third trimester is greater than the mean.

Depending on whether heifers experienced high or low rainfall in a given trimester as described in the Materials and methods, they were divided into all combinations of groups based on the rainfall category they experienced during each trimester. Combinations of all three trimesters were assessed for discrimination between delivery types. The results are presented in Table 6.

Table 6 displays the overall percentage of assisted births for the whole sample population for the 594 records that had information on delivery type. In addition, the assisted births for the eight population subsamples based on rainfall experienced in the first, second and third trimesters respectively are displayed.

Table 6 The effect of rainfall in the first, second and third trimesters of gestation respectively on calving ability.

Rainfall Group (First/Second/Third Trimester)	Total Assisted Births	Total Unassisted Births	Percent Assisted Births Within the Group
Whole sample	130 (100%)	646	16.8
High/High/High	4 (3.3%)	38	9.5
High/High/Low	12 (9.2%)	83	12.6
High/Low/Low	29 (22.3%)	147	16.5
High/Low/High	16 (12.3%)	24	40.0
Low/Low/Low	11 (8.5%)	77	12.5
Low/Low/High	41 (31.5%)	123	25.0
Low/High/Low	2 (1.5%)	68	2.9
Low/High/High	15 (9.1%)	86	14.9

Chi-squared analysis on assisted and unassisted birth numbers resulted in a value of 25.23 for 7 degrees of freedom. This demonstrates a significant difference between the groups ($p < 0.01$) and is mainly due to a higher than expected number of assisted births for the High/Low/High and Low/Low/High groups.

Figure 1 shows the mean calf birth weights from heifers exposed to high or low rainfall in the first or second trimesters. Compared to the high/low group, the other groups had significantly different calf birth weights with the levels of significance displayed in the respective bars on the graph.

Figure 1 Comparison of calf birth weights for heifers exposed to different levels of rainfall in the first and second trimesters.

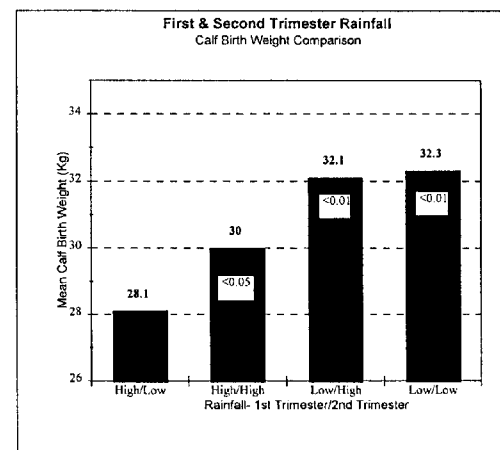
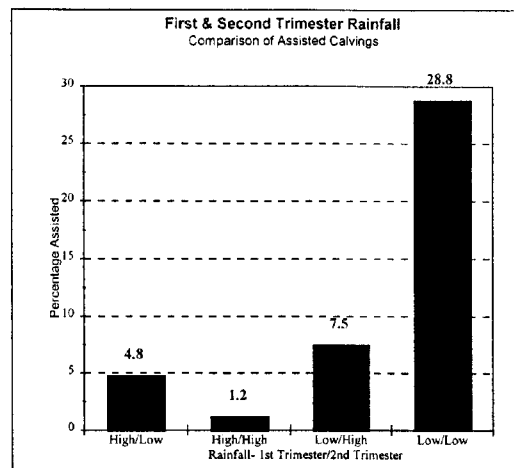


Figure 2 shows the percentage of assisted births in each group for the first and second trimesters. 28.8% of heifers in the low/low group required assistance.

Figure 2 Comparison of the percentage of assisted births for heifers exposed to different levels of rainfall in the 1st and 2nd trimesters.



DISCUSSION

The percentage of assisted calvings for the whole population was 16.8%. This is similar to reports in the literature over the last 20 years for mainly British breed beef heifers. The conclusion is that there is no apparent change in the incidence of dystocia over the last 20 years despite managerial efforts to reduce it.

When interpreting the results from tables 1 to 5 a number of conclusions can be drawn. Firstly, in all analyses, it becomes apparent that above average rainfall in both the first and second trimesters result in

German

Das Ziel dieser Untersuchung ist festzustellen, ob Regenmengen die Kalbungen von intensiv grasenden Fleischfaerssen, waehrend der Traechtigkeit beeintraehtigen koennen.

Es wurden 594 Fleischfaerssen untersucht, unter bedacht der Rasse, der monatlichen Regenrate waehrend ihrer Traechtigkeit, das Datum der ersten Kalbung und das Geburtsgewicht.

Die Daten zeigen, dass wenn es in den ersten 6 Monaten der Traechtigkeit ueberdurchschnittlich viel und in den letzten 3 Monaten unterdurchschnittlich wenig regnet, kommt es zu geringeren Geburtsgewichten und wenigen Schwereburten, die einer tieraeztlichen Assistenz benoetigen.

Waehrend es bei unterdurchschnittlichen Regenfaellen in den ersten 6 Monaten und ueberdurchschnittlichen vielen Regenfaellen in den letzten 3 Monaten der Traechtigkeit, das Geburtsgewicht hoeher ist aber auch die Anzahl der Schwereburten, die einer tieraeztlichen

Assistenz beduerfen steigt.

Die Schlussfolgerung daraus ist, dass dieser Effekt aus der Qualitaet und der Nahrung der Weide hervorgeht.

lighter calves with moderate levels of assistance. In particular, significantly more heifers require assistance when rainfall in the second trimester is below the mean for the group. This indicates that rainfall experienced during the second trimester (and by inference, the available nutrition) may play a pivotal role in the calving ability of first calf heifers.

To summarise the findings for the whole gestation period, heifers experiencing above average rainfall in the first two trimesters followed by below average rainfall in the third trimester appear to have low calf birth weights and moderate calving assistance. This is in contrast to heifers experiencing below average rainfall in the first two trimesters followed by above average rainfall in the third trimester, which experience higher mean calf birth weights and high levels of calving assistance.

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Spanish

El propósito de esta investigación era determinarse si la cantidad de precipitación experimentada por las novillas de carne durante gestación afectó la capacidad subsecuente de parto. Las novillas estuvieron pastadas extensivamente durante la prueba. Se registraron los datos de 594 novillas de la carne, incluyendo su raza, las cifras mensuales de la precipitación durante la gestacion, la fecha del primer parto y el peso de los terneros al nacimiento. El análisis indicaba que cuando las novillas experimentaron más que el promedio de la precipitación durante los dos primeros trimestros y menos que el medio de la precipitación durante el tercer trimestre, el peso de los terneros fue menos y las novillas necesitaron ayuda moderada al parir. En contraste, cuando las novillas experimentaron menos que el promedio de precipitación durante los dos primeros trimestros y más que el medio de precipitación durante el tercer trimestre, los terneros nacieron con más peso y las novillas necesitaron más ayuda obstétrica. La inferencia es que este efecto este mediado por la calidad de la nutrición y los pastos.

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