

2

Reading for Academic Purposes

LEARNING OUTCOMES

What this chapter has in store:

- A consideration of the central role of reading in your study
- The idea of 'active reading'
- The importance of what is known as 'clear thinking' whilst reading
- The description of different strategies for effective reading
- The idea that you should always challenge what you read
- The importance of keeping a record of what you read

Reading is likely to take up a vast proportion of the time you devote to your university work. This chapter will show you that there is more to reading than understanding the shapes of letters and the words which they build. There are few readers who could not improve the way that they read, especially in relation to studying – reading for pleasure is in many ways quite different. This chapter will introduce you to some of the approaches which have been used by successful student readers, with different preferences and learning styles, and you may well discover a way to improve the way that you approach your reading.

Active reading

Reading will be a crucial element of your study in higher education. In previous study your reading may well have been directed and supported by teachers and tutors, and this may continue to be the case for you now, initially at least, but there is a much greater expectation and requirement, if you are to be successful, to read more independently and more widely than you may have previously. Some say that there is an art to reading effectively at tertiary level. Isaac Disraeli, the literary father of prime minister Benjamin, pointed out that reading effectively is a skill to be developed much as learning

to think and to write effectively, he wrote, '*There is an art of reading, as well as an art of thinking, and an art of writing.*' (Disraeli, cited in *The Oxford Dictionary of Quotations*, 1981)

Often the ability to read, that is, to decode the text on a page into understandable language, is taken as being all that need to have accomplished. Decoding is one element of the process (for you this will now be totally automatic and unconscious), but understanding what you have decoded, and being able to do this in a highly effective manner, is a crucial element of the complete skill of reading, especially in advanced educational settings. Young children are often able to read convincingly and fluently to their teacher, but when questioned concerning the content of what they have read their lack of comprehension become obvious. As we saw in the previous chapter, understanding is at the heart of what you have chosen to be involved in, and the ability to make sense of what you read is the foundation of understanding. For some of us this comes easily, but for others time and effort need to be taken and approaches to help with reading need to be considered and developed.

While your reading techniques may have been adequate in the past, tertiary level study often requires a new and better approach if you are to cope efficiently with the quantity of reading material with which you will be presented. Many students mistakenly believe that reading faster will improve their ability to study and achieve their deadlines. Speed reading by itself will not be sufficient for effective study. What is required is effective reading. You will be more likely to achieve this if you take an active approach to reading and do more than simply acknowledge the words on the page. Reading actively involves the use of a range of strategies, the first of which is clear thinking.

Clear thinking

Before looking in detail at what makes reading effective, we will consider what is sometimes thought of as a prerequisite to reading. That is, thinking clearly about what it is that you are going to read, and then, what you are reading. The ideas set out in this section are based on the work of Alexander (1999). The work is not widely published and forms a small part of the documentation relating to an Open University module.

The ability to think clearly lies at the heart of making sense of what can be confusing and contradictory information in complex academic texts. Clear thinking is a technique which helps the reader of a text to be able to see patterns and structures in what is read. It is one of the skills of higher level study that you need to develop if you are to be successful.

The more sources that you refer to in your reading for any investigation that you are undertaking in your study, the more likely you are to come across contradictory views. Dealing with these views will form an important part of your work. You need to be able to distinguish

30 STUDYING AND LEARNING AT UNIVERSITY

between information which you can rely upon as being accurate and reputable, and information which is possibly dubious in some way or another. You will have to extract the key ideas from what can be unstructured materials and you will have to arrive at a position where you have an understanding of the topic and of the points presented. On this matter, to which we will return in Chapter 5, the use of material from online encyclopaedias with no real academic pedigree is not a good idea. Even sites such as Wikipedia, which is widely recognised as a good starting point, should not be used as an authoritative source. The content is contributed by users themselves and the authority of any particular user is not always clear. The information is also open to amendment by others.

The importance of context

The most fundamental principle of clear thinking is always to keep ideas in context. Suppose, for example, that you find some contradictory information from two sources. Can you find out, or deduce, something about the respective writers?

- What are their particular perspectives?
- What are they trying to accomplish by publishing the material?
- What are they basing their views upon?

The perspective of the author is an important part of the context of the ideas you are reading. In some cases it might be relatively straightforward to pick up on the author's particular standpoint; it may be made clear in the text, or the author might be acknowledged as a member of a political party, or religious group; the writer may be a journalist who works for a well-known publication which takes a well-known view of the topics under discussion. In other cases the process is not so simple. At times like this you might be well advised to undertake a little further investigation; this can be carried out fairly quickly, in most cases by making use of the internet.

By considering what the writer is attempting to accomplish by the publication of the work in question you will gain more insight into the work itself. For example, is the article a well-balanced consideration of the topic, or does it give what many would consider a one-sided perspective, in which case the purpose of the writer might be to propagate the view in question and diminish any views which might be considered to be contrary. Most reputable writers will make their purpose clear, and state in an introduction or preamble that they are writing to put forward a set of views based upon a particular philosophy or standpoint. Others may be providing the findings of research into a phenomenon and the research may have been carried out in such a way as to ensure its lack of any sort of bias. In cases like this the reader should consider the conduct of the research and make decisions about its approach and whether or not it achieves what it set out to achieve. Writing can be persuasive and biased in very subtle ways and the skill of a clear thinking reader is to detect this at an early stage.

We have considered that writing might be based upon research, and if this is reported fairly and honestly there will be few problems with it. Other writing may be based upon a range of other 'sources'. We have to be aware of unreliable evidence. If writing is reporting facts we have to be certain that the facts are what they seem. It is not unheard of for opinion to be presented as fact.

Facts and values

Facts can be described as ideas which are universally true. A dictionary would give a definition along these lines. (For example, www.dictionary.com 'fact' definition one: something that actually exists; reality; truth.) Everyone has their own perspective and their own view of the world, and we each have our own construction of reality. Since we all live in the same world, and experience many of the same ideas, objects, people and events, and since we have shared languages and cultures there is inevitably a good deal of overlap in these views, a good deal of agreement and shared reality.

At one end of the spectrum some ideas are virtually universally agreed, for example, that we are not able to walk on water, fly under our own steam to the moon, and the planet Earth is not flat. This almost complete agreement is as close as we can get to the notion of an 'absolute fact'. Often, we are happy to go along with a general agreement between people who have thought a lot about something or who are generally considered to know a lot about the subject in question – an expert in the field. When we treat something as a 'fact' it means that we consider it to be universally agreed, but even then it is important not to be rigid in our thinking and to recognise that there is a possibility that there is someone who might want to challenge it.

At the other end of the spectrum, it is clear that some ideas are the views of one individual, based upon their experiences, feelings and perceptions. For now we can discount the views of the mentally ill, although in a wider, more philosophical, discussion it might be of interest to consider the views of those held to be unbalanced in some way, as their views are also based on their feelings and experiences. Somewhere in the middle of all of this are views shared widely within a group, but contradicted by the shared views of other groups. These include what are generally called 'values'. An important part of the context of some material you will look at must be not just the views of its authors but how widely those views are shared and by whom.

Observations and theories

Another approach to clear thinking is to consider the principles behind what is generally considered as the 'scientific' approach. A scientific approach does not explain everything and it need not be applied only to questions of science. It too applies only in

32 STUDYING AND LEARNING AT UNIVERSITY

some particular contexts. The chief value of a scientific approach is that it will lead to the description of an area of understanding which is relatively reliable, in part because it has been developed in a measured and systematic way, and usually because it has been tested on subsequent occasions.

Essentially, the scientific approach to establishing truths combines two different types of knowledge:

1. Observations, direct or indirect, which are experienced by someone.
2. Theories or explanations which link those observations.

The value of a theory is that you can use it to make predictions. You can predict that other observations will fit the same patterns. Of course any theory has its limits. We need to be clear about just where a theory applies.

The test of an observation is how accurate, complete and reliable it is. We need to know how carefully the observation was made. Often, the observations we are hoping to trust are not our own. They may be reported to us by someone else, or may be in something we have read. There may be a chain of reports before the observation reaches us. At each stage of reporting there is the possibility that the story has been changed, that an observation may be replaced by theory, or that crucial aspects have been cut out. The test of a theory is how well it explains the observations it is linking.

We have already pointed out that a scientific approach need not be limited to scientific experiments. The basic principles apply to everyday experiences as well, and can help clarify our understanding of them.

You may meet a person on several occasions, and consider them to be bombastic or even rude. Your conclusion concerning the nature of the person might be that they are unpleasant or arrogant; you will have developed a theory based on your observations. However, there could well be other explanations for the behaviour that you have observed. For a number of different reasons the observed behaviour could be out of character. There is a definite difference between observations and theories developed from them and it is helpful to bear this in mind in your study.

When is one theory 'better' than another?

We know that it is possible for a number of theories to exist which purport to describe the same phenomenon. A particular theory takes precedence over another when it explains more fully, and makes more connections between, the observations that it is based upon.

An example of this could be the apparent conflict between Newton's Laws and Einstein's work on relativity; in reality both theories have relevance in different

contexts. New theories often evolve alongside older theories, and the two can coexist for some time. Eventually the newer theory is able to explain more and more of the observations that it is based on and this theory takes the lead and becomes the accepted wisdom. The older theory may well still have validity in some circumstances, but this will not stop it from being eclipsed by its new rival.

The test of a theory is how accurately it can connect a collection of observations, and in how wide a range of situations it is applicable. Many theories can never be considered as fixed and true. The best that can be hoped for is that it will be the most acceptable in the views of those who have been able to investigate and consider in detail the phenomenon in question. There is only a very limited sense in which most theories can be considered as the final answer.

In your reading there will certainly be contradictory and incomplete information. Alexander (1999) suggests it may help you, in your attempts to make sense of and summarise what you find, if you:

1. Try to separate observations from the theories and explanations about them.
2. Consider how likely they are to have been observed accurately and connected coherently. (Are they reporting events and observations, or theories about them?)
3. Look for the perspective of whoever is making a statement. (Are there any values they might have which affect what they are saying?)

Strategies for effective reading

As we saw at the start of this chapter, reading will be an integral part of your study and it is important to become as effective a reader as possible. To be effective, you have to read with a purpose, with a plan and with concentration.

Effective readers are organised; they do not just look at words, they search for their meaning. They assimilate what is being read with what they already know; they are active readers who remember and draw conclusions from the material as it is being read. If you are reading in an area new to you, it is important that you first form some framework of what the material is about in your mind. This is done by surveying the text in advance of getting down to reading it in detail and is sometimes known as pre-reading. This can be seen as activating schemas (see Chapter 1).

Pre-reading

Pre-reading is a useful technique for two main reasons. First, when you pre-read you gain an overview of the content and tone of what it is you have read. This allows you

34 STUDYING AND LEARNING AT UNIVERSITY

to make a judgement about whether or not to proceed to the next stage of reading in more detail. It may well be that, having gained an overview, you decide that further reading is not necessary. You may want to leave it completely, or you may want to come back to it at a later time. Secondly, by pre-reading you begin to activate your prior knowledge and prepare yourself, unconsciously in most cases, for the acceptance of new information. In a sense you are preparing the ground for the sowing of new seeds.

To pre-read a whole book it can be helpful to seek answers to some simple questions:

- Look at the contents page – does it seem to contain useful material?
- Read the introduction or preface – what is the author's purpose? How is the text structured?
- Glance at the chapters – are summaries included? What do the first and last paragraphs tell you about the chapter?
- Survey the index – are there relevant words listed? What topics are given most coverage?

To pre-read a chapter:

- Skim through and examine headings and sub-headings.
- Look at any illustrations.
- Read the summary at the end if there is one.
- Read the introductory and concluding paragraphs of chapter.

Find the topic sentence

An awareness of paragraph structure can help you to identify the main point in a paragraph from the detail or supporting evidence. As a general rule we can say that a paragraph contains one main point; there will, of course, be exceptions to this rule. Generally, if you are reading a text which has no subheadings, you can survey this by reading only the first and last sentence in each paragraph. Either one of these is usually the topic sentence. Topic sentences introduce or sum up the main point which is expanded in the paragraph.

[Note: The topic sentence of the paragraph above comes at the end.]

Look for key words and key phrases – skim-reading

The skill here is to concentrate on vital words or phrases, without which the meaning would be lost, glossing over or ignoring the less important words or phrases. Important statements or definitions are often put into italics or bold. Sentences or phrases which are ordered with numbers or letters should be considered. When sentences begin with 'first', 'secondly', 'finally' they give cues to important sub-points in the text. When skimming it is helpful to give attention to charts, diagrams and maps; an author often uses them to present important ideas visually.

Reading for different purposes

You will be reading for three different purposes at university:

- To gather material that must be understood and recalled in detail.
- To understand and evaluate the author's purpose in writing and the supportive arguments or evidence presented.
- Background reading.

Pre-reading and finding the topic sentence may be all that is required for background reading. For material that needs to be understood and recalled in detail, you may need to develop a more systematic approach. There are a number of reading systems which could serve this purpose. Which particular approach to detailed reading you eventually choose to follow will be a matter of personal choice and will be dependent upon several factors, including your particular learning preferences (see Chapter 1). Here we will look at a selection of different systematic approaches and it will be for you to work with one or more of them and then, importantly, develop your own approach, or even set of approaches, based upon your preferences and your particular reading need at any given time.

Many competent readers make use of the types of approach set out here. They do it instinctively and in more or less detail according to their particular purpose. It is the actions of competent, accomplished readers which form the basis of the different models being considered here.

SQ3R and SQ4R

The first system that we will consider is called the SQ3R method. The derivation of its name will become clear as you read on. There are five stages to pass through, each one dependent on the stage preceding it. The description of SQ3R below assumes that we are dealing with a chapter in a book, but the system can be applied in any reading context.

1. **Survey:** Glance over the headings in the chapter and read the final paragraph. Look for a central theme. Try to identify some core ideas. Find words highlighted or italicised by the author, read any definitions in boxes or in the margins, read any key sentences which are highlighted in any way and read the chapter summary or synopsis if there is one – this will be either at the beginning or the end of the chapter.
2. **Question:** Go back to the beginning of the chapter and turn the first heading into a question. This will arouse your curiosity, increase your comprehension, bring to mind information already known and help you to understand the section more quickly. For example: 'Difficulties which arise when using the internet' could become 'What are the difficulties which arise when using the internet?', and 'The evolution of number theory' might become 'How did number theory evolve?' or even 'Describe the evolution of number theory'.

36 STUDYING AND LEARNING AT UNIVERSITY

3. **Read:** To find the answer to your question, read to the end of the first section. Here you are looking for material to clarify arguments and assumptions, to evaluate them and to answer your own questions. Your reading is an active search for answers. When you have read, or perhaps read more than once, the section in question you should be able to formulate an answer to the question which you posed yourself.
4. **Recite/Recall:** Look away from your text now and attempt to recall the answer to your question. Use your own words and give an example. If you are able to do this then you have taken in the content of the section. If not, then glance over the section again. A good way to do this is to write down short key phrases as notes on a piece of paper. These can then form the basis of the notes that you might choose to make at a later stage.
5. **Review:** Look over all your notes to get a summary of all the points and their relationships with each other. Check that your recall was correct and check your memory by repeating the main points under each of the headings from the chapter.

Using the five steps of the SQ3R method is likely to result in faster reading, highlighting of important points and assisting in the process of installing them in your memory. It is an example of engagement (see Chapter 1). Another benefit from this method is that exam questions will seem familiar because the headings you turn into questions are often those set in tests.

This approach stresses engagement and activity, which, as we know from Chapter 1, are crucial elements in the process of developing understanding. Engagement and activity are features of all of the reading strategies suggested here.

SQ4R is a minor variant of SQ3R. The variation has the potential to be important for some readers. The fourth R refers to **w**Rite, or **R**ecord. Yet another version of SQ4R includes **R**elate as a stage in the process. In view of what Chapter 1 says concerning constructivist learning and the importance of activating prior knowledge and the notion that all new knowledge and understanding is built upon what the learner has already learned, the stage of actively relating new information to other already acquired knowledge or understanding is important. Quite how important, or how explicit to make this stage will depend upon the individual learner.

Muscle reading

This system comes from the United States. It is based on SQ3R and it specifies more text highlighting or more note-taking. There are nine stages involved, in three phases, and it is suggested that the system is easier to remember if three short sentences are held in the memory. They are:

- Pry out questions.
- Root up answers.
- Recite, review and review again.

Phase One: Pry out questions *Preview:* Read the headings and the summary, if there is one, and look at illustrations and graphics – diagrams, charts, pictures.

Outline: Read the chapter outline if there is one; if not, create an outline using the headings and subheadings in the text. This outline can be written in a notebook or on an index card and kept in the book.

Question: Write down a set of questions that you think the chapter will provide answers for, the headings in the chapter could be used to generate these questions.

Phase two: root up answers *Read:* Read to find the answers to your questions. Do not read for too long at a time. Focus your attention by visualising the concepts mentally or by drawing pictures or symbols to help you to understand the text. Some people favour reading out loud as a way of helping to make sense of what is being read.

Underline: When you have finished a section, go back and add notes in the margin or highlight major points, although library books should not be treated in this way. Sometimes it is worth photocopying sections of library books for this purpose.

Answer: As you read through the section and come to the answers for your questions, write them down.

Phase Three: Recite, review and review again *Recite:* Talk to yourself, aloud or silently, about what you have just read. Many people find that putting new information into their own words is helpful in coming to internalise and understand new material.

Review: When newly encountered ideas are reviewed within twenty-four hours of reading the material there is an increase in the amount retained. To do this, read through your marginal text markings or your notes.

Review again: This one is difficult to sustain, but if you can review your notes weekly or monthly there is pronounced learning benefit.

PREP

PREP is made up of three main steps:

1. **P**review
2. **R**ead to understand
3. **P**rocess to learn

38 STUDYING AND LEARNING AT UNIVERSITY

Step 1: Preview This is the preparation stage, in which the reader is encouraged to look through the text and 'see the lie of the land'. Questions which should be asked at this stage include:

- Does this look interesting?
- Is it suitable for my purpose?
- Which section seems most promising?

Step 2: Read to understand Whilst reading, certain questions, relating to the detail or ideas that you want to be made clear for you, should be asked; the questions that you pose will be related to your purpose for reading (see 'Reading for Different Purposes' earlier in this chapter). You will also use suitable techniques for helping you to engage with the text. For example:

- Underline or highlight important words, sentences or passages.
- Write marginal notes.
(These points are only suitable where marking is allowable, i.e. the book in question is not a library book. For some library books it might be a good idea to photocopy important sections which can then be marked or highlighted as necessary.)
- Keep a brief record of the most important points from the text in note form. (This might be more detailed if you are using a library book.)

Step 3: Process to learn In this final stage more activity is called for, leading to more engagement with the information and ideas in the text. Activities can include:

- Writing a short summary.
- Creating visual study tools – diagrammatic representation of the ideas and information.
- Creating mnemonics or simple and memorable rhymes.
- Reciting the main points of your notes.

This model does not include the idea of discussing with others, or exchanging thoughts about a text which has been read by more than one member of a group, but it would be a sound, socially constructive, approach to take. Tutors often build this into seminar sessions, when some advanced reading has been set. In other cases students meet, either formally or informally, to discuss what has been read.

S-RUN

The principles of this system are very close to the those underpinning the preceding systems. The difference is in its brevity. In many ways S-RUN can be seen as a précis of what has gone before, and for some it will be refreshingly manageable.

The four stages of this system are:

- **Survey:** Survey the chapter, read and consider the title and the introduction, as well as all of the headings, charts, graphs and diagrams.
- **Read:** Read the chapter.
- **Underline:** For each section, underline material that explains the section's heading(s).
- **Note-take:** Write brief notes on the material. Write a summary of the main points of the chapter.

Reading for assignments

It can be helpful to develop a systematic approach to your reading for assignments. One such approach could be:

- Select a book or an article from the reading list that gives an overview of the topic.
- Decide what you need to find out. Write down some questions to focus your reading.
- Check authors, publication date, contents and index pages to determine if the material is relevant to your needs.
- Record details of author, title, place of publication, publisher and date now so that you will not have the trouble of trying to find the material again when compiling a list of references.
- Skim-read relevant sections and compare them with other material before taking notes. Record page number with any notes you take.

Avoid overuse of highlighters when reading photocopied material or your own textbook. Brief notes will be much more useful. These can be written in the margin of photocopied material or your textbook.

Finally, remember to read with a purpose and vary your reading rate to suit the complexity of the material. As an advanced student you should be examining the ideas and arguments critically as you read. The development of your ability to be critical in your assessment of the accepted body of knowledge in a discipline is a skill you will be encouraged to develop throughout your university education, and one which forms a part of the armoury of graduate skills which you will acquire through successful university study. Consider how arguments are constructed and presented. This is something you will be aiming to achieve in your own writing. We will return to this later.

Smart reading

All of what has gone before in this chapter is designed to lead towards helping you to develop the skills and approaches of what, in modern parlance, has come to be known as being a 'smart reader'. Smart reading is about being focused and about asking questions of the text *as it is read*. Smart reading pays attention to making good use of

40 STUDYING AND LEARNING AT UNIVERSITY

contents pages, introductory and concluding sections and indexes. These are the parts of texts where an overall sense of what a particular piece/book covers can be gained in return for a minimum amount of time and effort. Once a sense of the content, approach and quality of material provided by a particular source has been achieved by browsing the different sections and locations, anything which is not wholly appropriate can be passed over and it is then possible for you to devote more of your precious time to the material which is most pertinent to the purpose of the reading. As a smart reader you will have a clear picture in your mind of what it is you are reading for. You will have considered the question, or the task, and 'unpacked' the detail. You will have a definite view of what it is that you need from your reading and you will be able to keep well focused by making use of the techniques above in one measure or another, in a range of different combinations and in a way that you will have tailored for yourself.

One additional point which some of the literature concerning smart reading stresses, but is not explicitly made in the sections above, is that reading a piece more than once is very likely to be necessary. The expectation with academic reading, as opposed to the reading of fiction or other leisure reading, should not be to be able to digest every subtle nuance of the text in one reading. It is not unusual for the text to appear complex and impenetrable on first reading. Sometimes the reason for this is the nature of the writing; some authors can be over-complicated in their style and write in over-elaborate ways. (This is also something that we will look at later when we consider your own writing.) Sometimes the reason is that the text concerns complex, concepts and arguments that cannot and should not be reduced to simple bite-sized pieces. Your task as an academic reader is to understand what you are reading and this is quite likely to involve making use of the techniques described here. It will also frequently lead you to return to read passages, or even whole chapters or articles, more than once. This is a perfectly normal and appropriate approach to take.

Making a record of your reading

In all of the above strategies for reading there is a place for recording or note-taking. This can be a very personal, even an idiosyncratic, activity and we will consider this in detail in a later chapter. At this stage, however it is worth mentioning the idea that you should keep a clear record of what you have read. This does not refer to keeping a record of the ideas and information from your reading, but to keeping bibliographic details of the texts in question. Providing accurate references in your written work, as we will see later, is very important, and when you come to finish a piece of work and find that you do not have a record of where the specific quotes come from, or the title and year and place of publication of a particular book, you will find it difficult, frustrating and extremely time-consuming to attempt to re-trace your steps and find the essential missing details (see Chapter 6 to find out what details you will need to record.)

In the past the advice given in this situation, especially for extended work such as dissertations, was to keep a card index box with a record card for each book, chapter, article. The card could also include short comments or reminders concerning the text in question. This rudimentary, paper-based, database worked well for generations of students and academics, but now there are technology-enhanced versions of the card index file which serve as excellent tools for keeping and managing references.

Bibliographic software

The aim of bibliographic software is to allow you to input, store, organise, retrieve and format lists of references in a simple and straightforward way. A database of references is created which can then be saved, searched and used alongside word processors. Within the word processor it is possible to import and format references as an assignment is written. Good quality bibliographic software allows the reference list to be formatted in a number of different styles to match the requirements of tutors, departments or even publishers.

Universities invariably support one of the well-known programs for dealing with references and bibliographies. You should investigate what is available for you at your institution. Bibliographic software, such as EndNote, Procite, or RefWorks, is capable of more than keeping and manipulating records of references. Many students, academics and other writers make extensive use of both the basic and the more advanced features of the systems to assist in their writing and accurate referencing.

Challenge what you read

As a student you may find that you underestimate your ability to challenge or question what has been written by published authors. The process of unconscious thought you will rehearse centres on the notion that you are simply a novice student and the writer is an established academic, or similar expert. There are many reasons, however, why what appears in print, even in reputable locations, can and should be challenged. Here are some of the reasons.

- The author's expertise: in spite of having a range of qualifications and experience in a particular area of expertise, it is simply not possible for a writer to know absolutely everything about complex fields of study.
- Time and place: what you are reading could be out of date. Books and academic articles may well have been written some time ago, and knowledge and ideas change over time, rapidly in some cases. It is very important to be aware of the date of publication of what you are reading. It might also be the case that the precise context of what you are reading is different to the situation that you are considering – facets of systems in another country for example.

42 STUDYING AND LEARNING AT UNIVERSITY

- Knowledge: the nature of knowledge is such that demonstrating something to be correct and true is not always possible. Through a process of scientific enquiry, taken in its broadest sense, it is only possible to disprove something. For that reason some philosophers and academics consider that knowledge is at best only tentative, and always open to change and contradiction.

In your reading you should also pay attention to particular, potentially problematic, approaches or use of language, for example:

- Ambiguity: if something is not clear or is in some way ambiguous, pay more attention to it. See if you have initially not understood what is written, but can tease the meaning out. If it really is unclear or ambiguous, then it needs challenging.
- Inconsistency: if you detect flaws in the presentation of an argument, do not accept it.
- Unintelligent use of language: vacuous expressions, which are woolly and open to misinterpretation, should be cause for alarm in academic writing. Writing should be clear and thorough. Some words work against this. Words like nice, good, bad, few, many, are not precise and therefore not helpful for the reader. Words of this type can be interpreted differently by different readers. Where they are used they should be defined, or quantified in some way, for example: 'By few, we mean fewer than 25% of the sample.'
- Generalisation: in much research it is not possible to investigate every case of a phenomenon and so moving from a specific case to a general case is a valid activity. But only when it is firmly justified. Treat all generalisations as suspicious until you are convinced otherwise.
- Economy with the use of evidence: evidence can be presented in a variety of impressive ways which sometimes persuade the reader that it is fair and balanced when in reality it is not complete and has been presented in such a way that the full picture is obscured. Sometimes it is helpful to consider what has been omitted. (In a different context this was once famously referred to as 'being economical with the truth'. (Sir Robert Armstrong, a 20th century civil servant, paraphrasing Edmund Burke, an 18th century Irish politician.)
- Consensus: phrases such as 'we all know that' should give cause for concern. It is possible that the writer does not have evidence to support a particular claim and instead is appealing to the reader to agree with the point without having substantiated it with evidence.
- Authority: just because an expert supports some view does not mean that it is correct. Even experts must have good evidence.
- Common sense: one person's common sense is not necessarily the same as another person's. It is a mistake to assume that common sense is a universal phenomenon, applying to everyone equally. If a writer tells you that it is 'common sense' to accept a particular point, challenge it.

Final thoughts

All of the techniques and models set out in this chapter are used in one way or another, in a variety of combinations, by readers of what are sometimes very complex texts. Often they are used instinctively by readers and have been developed in response to their reading needs. In other cases they have developed as a result of teaching, or reading on the subject of study, and in almost all cases they have become a personal, modified version of what is presented here. You will see that all of the models presented have similarities and areas of overlap. All of the separate techniques here are used in some measure by accomplished readers to acquire information; accomplished readers will also have a wide range of other reading techniques not included here. There is no one correct way to read, but developing an appropriate and accomplished technique should mean that increased knowledge, understanding and retention will be the outcomes of your academic reading.

SUMMARY

- Reading will form an important element of your higher level study.
- Your reading might be in need of a review of techniques.
- There are a range of techniques available to help in the process of gaining new information and understanding from reading.
- Be systematic and logical in your approach to reading and recording the important elements of what you read.
- Keep detailed bibliographic notes, including title, author(s), publisher, date of publication and page numbers for specific quotes.
- Challenge what you read.

Next

The stage of your work following on from, or often taking place at the same time as, reading will be making a record of what you have read. This should be a far more sophisticated process than copying sentences or even paragraphs from your reading to your note book. The way that you choose to record your reading and the important ideas and explanations that you need to internalise, can make a big impact on the progress that you make, especially when the time to prepare for assessment arrives.

44 STUDYING AND LEARNING AT UNIVERSITY**Activities**

Topic sentences: Look at a selection paragraphs taken randomly from different sources. Identify the topic sentence for each of them.

Pre-reading: Choose an article associated with your subject, or your next assignment, and pre-read it. Remember this does not mean read it word for word. It should take you between five and ten minutes and when you have finished you should have an idea of the content and the main points/arguments. Look back at the pre-reading checklist before you start if you need to.

Reading: Read a short text related to an area of your study, look for evidence of the points considered in this chapter and write a few short phrases or sentences describing them.

Think about:

- the perspective of the author
- the presentation of facts, values and theories
- the sources relied upon in the presentation of ideas.

Look out for:

- ambiguity
- inconsistency
- unintelligent use of language
- generalisation
- economy with evidence
- the authority of the writer
- appeals to common sense or consensus.