Efficient Reading Strategies

Most programs of study require students to read substantial quantities of material. Mastering an effective reading technique is one of the greatest challenges to students at all levels. No single style of reading works equally well for everyone, and no single style of reading suits all material. Reading a textbook for detailed information is not like reading a novel for pleasure; the two tasks must be approached differently. Above all, there are no shortcuts.

Nevertheless, there are steps that can help students read more efficiently. One of the first modern reading systems remains the best known: Francis P. Robinson’s "SQR³ (pronounced "ess que are-cubed") system:

- Survey
- Question
- Read
- Recite
- Review

1. Survey

Knowing what someone is trying to say always helps you understand an actual speech. Surveying gives you increased understanding and retention by providing an overview of the whole by reading in detail. You will identify the text’s internal organizers. You can also prepare for a more detailed reading by developing questions you will later use for focus and motivation. Use your rapid reading skills to make survey sessions intense but brief.

Method

Skim key parts of the text, avoiding details but looking closely at the internal organizers (preface or introduction, table of contents, glossary, index, review questions--and answers!) for clues about the content and organization of the text, the author’s point of view, and his/her style. While exploring the book, ask yourself questions to stimulate your interest.

TITLE:

How does it differ from others on the same subject or by the same author? Does the subtitle hint at the text's special orientation?

PREFACE:

Does the preface explain the book's:

- subject and range of coverage,
- special worth or importance,
- pedagogic or ideological purpose,
- principle of organization?
TABLE OF CONTENTS:

Some texts have both simple and complex (analytic) tables of contents. How is your book organized? Do some chapters seem more important than others? Are there a few major parts? If not, can you simplify the organization into two or three categories?

RANDOM PAGES AND ILLUSTRATIONS:

Read the beginnings of a few paragraphs and glance at the illustrations. What is the author's style? How does the text communicate?

ILLUSTRATIONS, MAPS, DIAGRAMS:

Do they clarify the central theme? Do they illustrate main points or clarify details?

APPENDICES, GLOSSARIES, INDEX, BIBLIOGRAPHY:

Which of these are included? How complex are they?

CHAPTERS

Exploring a chapter by spot-reading does not give you all the information. However, by taking this "bird's-eye view," you will be able to see more clearly how the ideas fit together. We remember details better when we understand how they relate to major concepts. Surveying a chapter helps your mind fit the information into categories that make sense to you, making it easier to assign the details to their proper places and learn them. Also, because you have to think your way through a chapter when you survey (instead of passively "riding" the flow of words), you tend to concentrate better and daydream less.

2. Question

When reading a text, a small pad of Post-It notes can be your best friend. Not only do these notes allow you to mark key parts of the text but they also give you space to jot questions about the reading material. These questions can then be peeled off before an exam, collected, and then used as a study aid--a great way to test yourself on whether you have mastered the material.

Method

QUESTIONS:

As you read the chapter title and the paragraph and section headings, consider what ideas are being explained, what problems are being raised, and what questions are being posed. Jot down the question.

CHAPTER TITLE:

Ask how it relates to preceding and following chapters. Again, jot down any questions.

SUMMARIES AND CONCLUSIONS:

A chapter providing a summary or conclusion will provide a clear, concise overview of the text; read it through. What was the major thrust of the text? What questions does it ask?
CHAPTER STRUCTURE:

Read the headings in the chapter. The author uses these to show the reader the organization of the piece. Determine the relationship of the ideas in the writing by noting the levels of headings. Which ideas are main and which are subordinate? Can the subtitles be grouped to form main points?

3. Read

When you actively seek answers to your questions, your attention is more focused, and you are less apt to read passively and unproductively. Further sharpen your focus by marking the text; this makes the process more interactive and ultimately more memorable. Marking the text reinforces new concepts in your memory by making you an active participant in reading.

Method

Use headings and subheadings to make up questions as you read through the chapter. For example, the section title "Covalent Bonding" should prompt you to ask, "How does covalent bonding differ from other forms of bonding?" "Why is it important?"

Read the section to find the answers to your questions using the following guidelines:

1. Look up unknown words in the glossary, a dictionary, or a specialized lexicon (terms are often used in a way particular to an individual discipline) to ensure a clear understanding of the material.

2. A full idea is rarely developed in a single paragraph. Treat a series of paragraphs as a single explanatory unit.

3. Often graphics are integral parts of a paragraph, and the reader must refer back and forth from paragraph to graphic in order to make sense of what is being read.

4. Dense, difficult material must be read slowly. The meaning of science or mathematics often has to be "cracked" sentence-by-sentence. Watch for small but important words such as "since", "because", "although", "as", and "not". Ignoring or misreading such pointers can lead to serious misunderstanding. Be wary of getting bogged down, but, if you do lose the thread of an argument, go back to its introduction or jump ahead to its conclusion to help locate yourself.

5. Whether you read paragraph-by-paragraph or sentence-by-sentence, be aware of the context of each new statement. Information is more memorable if it contributes to a well-organized whole instead of remaining in small discrete bits.

6. As you mark the text, keep four main points in mind: finish reading a portion of the text before marking; be selective; be swift but accurate; be systematic (see the "Suggestions for Marking Symbols" chart below).
### Suggestions for marking symbols

<table>
<thead>
<tr>
<th>Description</th>
<th>Markings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Double lines mark main points.</td>
<td>Radiation can produce <strong>serious mutations</strong> in most species</td>
</tr>
<tr>
<td>2. Single underlining indicates important</td>
<td>including that derived from <strong>cosmic rays</strong>. Paradoxically,</td>
</tr>
<tr>
<td>supporting material.</td>
<td><strong>Conditions change:</strong> rocks rise, surfaces sink, the sea level shifts.</td>
</tr>
<tr>
<td>4. Vertical brackets gather together related</td>
<td>Certainly the plate steel was grossly inadequate. Rivetted construction</td>
</tr>
<tr>
<td>points.</td>
<td>was an outmoded technique, and the quality of the work was substandard as</td>
</tr>
<tr>
<td></td>
<td>well. In conclusion, little</td>
</tr>
<tr>
<td>5. An asterisk marks an important point.</td>
<td><strong>At the epicentre of the blast, objects were almost completely</strong></td>
</tr>
<tr>
<td>6. Key words can be circled.</td>
<td><strong>Consequently, the synapses do not function as well in such</strong></td>
</tr>
<tr>
<td>7. Question marks indicate confusing material.</td>
<td><strong>The meteorite theory remains the most convincing and the best</strong></td>
</tr>
<tr>
<td></td>
<td><strong>supported by hard (in this case geological) evidence. Moreover, in</strong></td>
</tr>
<tr>
<td>8. Post-it notes are useful for summaries and</td>
<td><strong>Fossil Record</strong></td>
</tr>
<tr>
<td>compact lists drawn from the text.</td>
<td><strong>Plants</strong>: 500 000 000 years old</td>
</tr>
<tr>
<td></td>
<td><strong>Insects</strong>: 260 000 000</td>
</tr>
<tr>
<td></td>
<td><strong>Bees</strong>: 100 000 000</td>
</tr>
<tr>
<td></td>
<td><strong>True Fish</strong>: 250 000 000</td>
</tr>
</tbody>
</table>

### 4. Recite

Repetition is essential to memory! Many people find that reading *out loud* drives the material into memory: This approach combines **performance** and **listening** with simple reading.
Method

Using Textbooks:

1. Cover the body of the text, exposing only titles and subtitles, or your own marginal notes if you have been using Cornell-style keywords to link your notes and texts.

2. Recite the hidden text using the exposed keys as cues.

3. Check the text to ensure your response is correct.

4. Repeat until your responses are perfect.

5. Review

Reviews at regular intervals (putting into practice the principle of distributed learning) ensure that information enters long-term memory. "Cramming"--intensive, last-minute study--may help you pass an exam, but the material will NOT be available to you in the future. Actually setting and taking tests is a very strong approach to discovering the limits of your knowledge and achieving mastery. Unlike a passive review, a test prevents self-deception.

Method

Using Note from Texts (in Cornell format):

1. Cover the body of the notes, exposing only the "key" column.

2. Using the key words or phrases, reconstruct the accompanying notes.

3. Check the notes to ensure that your response is correct and complete.

4. Repeat the process until your responses are perfect.