

LEARNING FROM TEXTBOOKS

Reading and remembering information from textbooks can be one of the most challenging aspect of learning at college. There can be a lot of variation in how texts are used from one course to another, which means that the strategies that will be effective for reading and studying texts will vary from course to course as well. This *FAST FACTS* will discuss strategies that can be effective for learning from textbooks in courses where the text provides much of the material on which tests will be based. These strategies will not work effectively for all texts in all courses. For each of your courses, it's important to analyze what role the textbook plays and how it's related to the lectures, assignments and labs. Once you've figured out how the pieces of each course fit together, you can choose the study strategies that will be the most effective.

Do You Read Actively?

Some experts claim that watching TV has turned us into passive receivers of information. Students who have trouble concentrating and remembering what they read may have a passive reading style - they slide their eyes over the words and assume that somehow something will sink in. **Active** reading requires interacting with the information, or creating an "internal dialogue" with the text. Look for main points and supporting evidence or examples as you're reading. Students who read actively remember the material better, and therefore are using their time more effectively. Using a reading technique like SQ4R (described on this *FAST FACTS* insert) can also help to make your reading style more active.

Reading Speed and Comprehension

Many students are concerned about their reading skills, in particular their reading speed. However, the speed with which you can whip through a reading is not nearly as important as whether the reading technique that you're using is **appropriate for the task**. The way you read a novel or newspaper should be different from the way you read a textbook. With a text that you're required to understand thoroughly, a slow, careful pace is time-consuming but necessary for comprehension. It's difficult to convince students who value speed over comprehension that it's smarter to spend an hour on five pages and understand the material well than it is to spend an hour on fifty pages and remember nothing. However, it's just as inappropriate to spend hours memorizing every detail of a chapter when all that's required is a general understanding of the main ideas.

A note about speed reading - Woody Allen once took such a course and then read *War and Peace* in a few hours. He said, "It's about Russia." Research on reading has shown that what speed reading courses teach is a method of skimming rather than a reading method appropriate for the task of understanding and retaining the kind of challenging material usually found in textbooks. However, one should not approach college texts by reading so slowly that comprehension of ideas is lost or never achieved. If you have questions about your reading speed, contact the Learning Center.

Concentration

One way to improve concentration while reading is to analyze the distractions that are interfering with it. For example, consider when and where you're reading. It's not surprising that students get sleepy while reading if the bulk of it is done early in the morning, late in the evening, or while laying on their bed. Planning reading sessions for times when your energy and concentration are high can make a big difference in how efficiently you read and how much you remember. The distraction of noise or roommates can usually be eliminated by changing where you study.

If your mind seems to wander back to a personal situation or problem, a focusing strategy might help. For example, reserve a specific time when you will think about the problem. Then when you realize that your mind has wandered to the problem again, write it down on a list and say "Back to work now . . . I will think about that at 4 o'clock." Some students like the "checkmark" technique. Keep a sheet of paper beside you when reading, and each time your mind wanders put a checkmark on the sheet and go back to work. This helps to get you refocused quickly, and keeps track of your level of concentration during a particular study period.

Good concentration and time management can be closely related. Because you are attempting to remember most of what you read, it's a good strategy to read in small pieces, spread out over a period of time. If you read for two or three hours at a stretch, it is unlikely that you'll remember the material in any detail. Students often set a time or page limit on their reading, then waste time and inhibit concentration by frequently checking the clock or the number of pages left in the chapter. Don't obstruct your effectiveness with one of these artificial limits - instead, monitor your **learning**. If you read the same page several times and still don't know what's there, it's time to take a break and/or switch tasks. It doesn't matter if you've read five pages or fifty - the point is not to sit wasting time once you've realized that you're no longer learning. Be sure to plan reading sessions carefully (a number of short sessions distributed over time can be difficult to fit in) so that the task gets done when required. Concentration is affected by your choice of reading strategies. Don't assume you will read all texts or reading material using the same strategy.

Dealing with Difficult Textbooks

At some point in your college career, you may encounter a textbook which you find difficult to understand or follow. There are several strategies you can try to improve your comprehension of difficult texts.

Improve your knowledge of the subject's terminology

Any text will seem difficult to understand if you don't know the definitions of the terms which form the building blocks of communication in the discipline. For example, it would be difficult to read an introductory Political Science text if you're unsure of the significance of terms like "democracy," "society" or "politics." A regular dictionary often won't provide more than a basic definition, so you may need to look for a specialized dictionary, specific to the subject, in the library. It's probably worth your money to invest in a special dictionary or reference book for the subject which is your major. Be sure to check the back of your text for a glossary of terms.

Assess your knowledge of the basics

It's possible that your text and even the course itself could be "above your head" if you lack an understanding of some basic concepts in the discipline. If you're struggling with the basics, talk to your instructor to make sure that you have the necessary prerequisites and prior knowledge required for the course. Meanwhile, check the library for an introductory book on the subject.

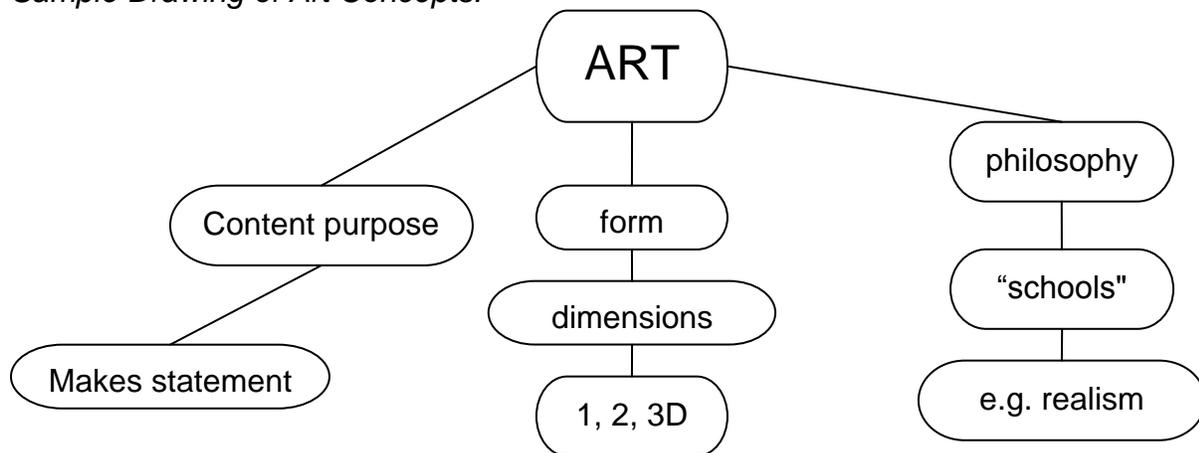
Try another text

The problem may simply be that the text is poorly written, or for some reason the author's style is difficult for you. Although you can't abandon your required text, it may be helpful to find another book on the same topic in the library. Sometimes a different explanation of the same topic is all it takes to make an incomprehensible subject more accessible.

Integrating Text and Lecture Notes

In some courses it's important that the material from the texts and lectures be learned together, so integrating your notes can be an important study strategy. You may want to try **diagramming** as a way of putting text and lecture material together. At the end of a topic or a chapter, you draw a diagram or picture which summarizes how the lecture and text material fit together. Diagramming can improve retention of material because it enables you to reorganize and integrate information from both the lectures and the textbook, and see it in a different format.

Sample Drawing of Art Concepts:



NEED MORE INFORMATION?

The Learning Center is one of the best sources on campus for advice and information on learning and study related issues. The Center is staffed by a group of peer tutors from a variety of disciplines, and appointments are available with staff professionals for assistance in learning and writing skills.

THE LEARNING CENTER, 659-3725

Special thanks to the University of Guelph

A CLASSIC METHOD FOR STUDYING TEXTS: SQ4R

We call this method a classic because students have found it useful since the early 60's. It's probably worth your time to try all the steps at first, and then choose and apply only those that work effectively for each of your course texts. Although SQ4R may seem time-consuming, once you know the steps the process takes only a few minutes.

S = Survey

Before you crack open your book to page one and dive in, take a few minutes to read the preface and introduction to the text, and browse through the table of contents and the index. This will tell you basically what the book will cover, the author's particular approach to the subject (i.e. why he/she wrote another text on the subject when there are probably twenty on the market), and what the basic organizational structure will be.

A similar process is repeated before each chapter. Read all the titles and subtitles, study any pictures, charts or graphs, read the summary at the end of the chapter first (if there is one), and read the study questions. Surveying a chapter in this way gives you the "big picture", a framework of the main ideas which will help to hold the details together later.

Q = Question

Before beginning to read, take the subtitle of the section (or the first sentence of a paragraph) and turn it into a question. For example, if you're reading a part of a chapter called "Functions of the Spinal Cord", ask yourself "What are the functions of the spinal cord?"

R#1 = Read

You then read, not passively sliding your eyes over the words, but actively engaging the text, trying to find the answer to your question. Be cautious, however, that you don't end up looking only for the answer to your question and miss other important information.

R#2 = Respond

Once you have read the section, close the textbook and answer your question, either orally or on paper, **in your own words**. If you can't answer the question, you should reread that section until you can. *It's pointless to continue unless you have understood what you have just read.*

R#3 = Record

The next step is to record the information in some way. Some common methods are to highlight and/or mark the text, or to take notes, or a combination of both. Whichever method or combination of methods you choose (some pros and cons are summarized next), it's important to remember to read and understand the material *first*, and then go back and record.

Highlighting: The Pros

- takes less time than notetaking
- charts and graphs from text readily available

Highlighting: The Cons

- very easy to do badly; can fool you into thinking you're learning material when what you're doing is coloring
- tendency to mark too much to avoid missing something important; experts say highlight 10-15%; students usually highlight 70-80%
- necessary to study for tests from heavy, clumsy textbook
- because fragments of sentences are highlighted, tendency is to read whole sentence for complete meaning and so most of the book ends up being re-read.
- impossible to integrate with lecture notes
- textbook ends up looking very used and reduces resale value

Notetaking: The Pros

- because it's time-consuming, encourages you to be concise and more selective of important information
- information is in point form but still grammatically complete
- provides a portable, easy-to-manage study tool - text not often needed for studying
- condensed study notes can be made in margins as you go, saving time when preparing for exams

Notetaking: the Cons

- time-consuming
- tendency to copy rather than take notes in your own words

R#4 = Review

In courses where there is a lot of factual material to remember, a regular review period (usually once a week) can be very effective in retaining information. Integrating a weekly review period into your study routine will help you remember more of the information longer, thereby changing the nature of the studying done at exam time. Rather than relearning material that has been forgotten because you haven't looked at it since writing it down, preparing for an exam can include a review of familiar material *and* rehearsal strategies like trying old exams. The secret to making regular review periods effective is to start from the beginning in each review session. As the volume of material to review increases, the amount of time needed to review older material decreases. For example, after you've reviewed the first week's material a few times, it will only take a couple of minutes to skim over it and recall the key points.