

Reading a Textbook

The following are some guidelines for reading a textbook. These skills are ones that I picked up in college and graduate work, and I still practice them today when learning new material or preparing for classes. I hope you find this helpful and use it throughout your studies.

Beginning a New Textbook

(If the book is brand new, you may want to open the pages from the edges toward the middle and press them down in order to help break the spine of the book.)

- Read the **title**.
- Read the **author**. Often a textbook is referred to by the name of its lead author or authors.
- Glance through the **opening** information — see what's there.
- Read the table of **contents**.
- **Cover Challenge**: Can you find credit and/or explanation for the cover design. (I usually find myself doing this some other time when I want to take a reading break.)
- **Flip through** the entire book.
- See what the **back sections** have to offer. Appendices and indices can be valuable resources.

Beginning a New Section Assignment within a Textbook

(This would also be good for when you begin a new chapter.)

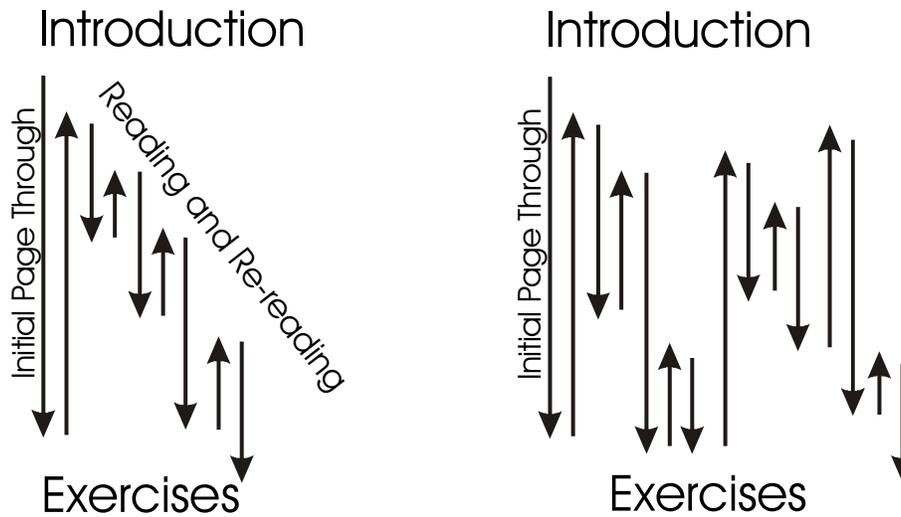
- Read section **title**.
- Read **introduction** paragraph or overview.
- **Page through** the entire section.
 - Read all **sub-section titles**.
 - Look at **pictures and diagrams**. Read the captions. Look at the picture/diagram again.
 - Do this even if the caption only says “Figure 6.7.”
 - The captions may not make sense since you don't know the information yet, but read them anyway. This helps you preview what's coming and will help with further reading.
 - Read all **boldface** words.
 - Don't worry about the definitions, just let the words catch your eye and read them.
 - If you are an auditory learner, say the words out loud.
 - If you are more of a kinesthetic learner, write the words in a list on separate paper.
 - Read titles of “**Special Boxes**” (highlighted equations, theorems, definitions, etc.)
 - Glance at what's there, but don't try to read or understand it just yet.
 - Read **sidebars**.
 - Biographies
 - Special Examples
 - Applications
- Look at the **exercises** at the end of the section.
 - Get a feel for how many questions/problems there are.
 - Read a couple to see what they're asking for and what kind of work may be involved.
 - Do you recognize (not necessarily understand) any of the vocabulary you saw earlier?

Reading a New Section Assignment within a Textbook

- Go back to the beginning of the section.
- Begin reading.
 - Read slowly — speed is not necessarily better.
 - Read definitions twice (visual), say them out loud (auditory), write them down (kinesthetic), etc.
 - Same for “Special Boxes”
 - Read all “remarks.” Some of the most interesting connections and subtleties can be found there.
- When reading . . .
 - If you don’t understand a paragraph read it again.
 - If you are in a long paragraph or part of the section and don’t get it, continue reading by skimming the rest of it with the understanding that you are going to read it again. Then go back to the beginning of that part and try again.
 - It does *not* do much good to re-read a single sentence over and over again. Look at paragraphs as a whole. The context can help you understand a complicated sentence.
 - Look up words you don’t know and can’t figure out from the surrounding context.
 - If it helps, read a part out loud during the second pass or find someone to read it to you. Perhaps you would learn better by reading the entire thing into a tape recorder and then playing it back another time while looking at examples, pictures, and diagrams that don’t transfer well to audio.
 - If you’re getting stuck (or just really bored), pause. Look back to see what you’ve read and done so far. Look ahead to see what’s left. Maybe take a reading break and see if you can do any of the early exercises yet.
 - Read examples carefully.
 - But first, see if you can anticipate the solution. Don’t necessarily try the problem yourself, but see if you can figure out what theorems, results, or definitions they’ll use or which strategy they’ll take.
 - Glance over entire example before reading thoroughly. Check the reasonableness of the result.
 - Read the example. Trust the arithmetic, but carefully try a few early steps or any you don’t immediately follow.
 - Check the reasonableness of the answer again. Does it make sense? Also, were you right with how you thought they’d approach the problem? *Confirmation of your ideas is very important.*
- When you get to the end, glance back over the entire section. Read **boldface** words again. Maybe look at pictures again and/or sidebars.
- Try a few exercises explicitly or just think about them to see if you even know where to start. If not, go back and try to find that part again and re-read.

Reading a textbook is *not* like reading a novel. It takes work and *thinking*. Visual imagery does not come through beautiful descriptive passages, but through your own understanding and application of what's being taught.

Reading well is not a linear process. Sometimes I think of it like one of the sketches below:



All of this won't take as long as it may seem now. It takes practice, but good reading skills will help you a lot when you're expected to read and do research on your own in college.

Add your own notes and ideas: