

## Improving Textbook Reading and Marking Strategies

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### **SQ4R – Six Strategies for Reading Textbooks More Effectively**

SQ4R stands for Survey, Question, Read, Record, Recite, and Review (see detailed explanation below). It is based on a system developed by Francis Robinson and has been used widely for over 50 years. The goal of the SQ4R system is to use a systematic approach to improve reading comprehension. It isn't a shortcut; it usually slows down the process considerably. The reason it works so well is that it uses what we know about how people process information and gets us to apply basic memory principles (see the improving memory handout for more information). That's the whole point, when we read quickly we may understand what we read but very little goes beyond our short-term memory (STM); STM has a very limited capacity and time frame. Where's the value in that? So, we use a slower, more systematic approach so we can work the material into long-term memory in small chunks using organization, elaboration, rehearsal, feedback, etc. And, we want to be sure to leave behind some coherent markings and notes so if we find that the information isn't in our long-term memory (LTM), or can't be retrieved from our LTM, we don't have to start from scratch!

In reality, a person rarely uses all 6 strategies with everything they read.

However, it is important to realize how and why each strategy works. Armed with an understanding of all of the strategies you can then decide for yourself which one or combination to use in any given situation. This decision relates both to your purpose for reading and your own learning style. Another way to look at it is this: When I read I want to set a purpose – I ask myself: "What do I want to get out of this"? Then I determine the basic procedure I'll use (which combination of the SQ4R steps) for reading depending on the material, my style, and my purpose. A short way into the reading assignment I'll evaluate how I'm doing and then modify my approach - by adding, subtracting, or modifying the steps of SQ4R.

#### **For example:**

I'm reading a chapter in my Psychology book on the topic of "memory". I surveyed the chapter and just started reading the first heading "Three Kinds of Memory". I get to the end of that section (2 pages) and realize that I can't explain or give an example of any of those 3 types of memory (I can't even remember the NAMES of the 3 types!). OOPS! Now, I need to think about what went wrong and which steps of SQ4R to use to make this work. O.K., I decide that it would be useful to "**ask questions**" before reading each section like: What are the 3 types of memory? What is episodic memory? What's an example of episodic memory? Then I decide that I'll "**record**" the answers by marking the text up and putting notes in the margins. When I get to the end of the section, I'll quiz myself on the material by asking myself the questions and see if I can "**recite**" the answers. If not, I'll go back to my markings, read the information again, and try to recite it again. I won't go on until I can answer the questions I generated.

I'm now using more elaboration, selecting and labeling/organizing the information by marking the text, using small chunks so as not to overload my STM, doing writing to rehearse, giving myself feedback through reciting, and leaving behind a system for later retrieval!

It may be a lot of work, but this is often what it takes to really learn the material.

### **A little on reading purpose:**

Sometimes, you may just need an overview of the text material before attending a lecture; other times, you may need to really learn all the main points and terms in the chapter. At still other times, you may need to read after the lecture, focusing only on the material the instructor covered in class. Your purpose for reading is vitally important and is determined by both your instructor's approach to teaching and testing as well as your own learning style. That is the primary reason to have SQ4R at your disposal, so you can adapt to the situation and your style. Figuring out how and when to attack a text in each new course is a key to success. You can get insights on the role the text will play in the course from looking at the course syllabus, talking to former students, asking a tutor, asking the instructor, and looking at quizzes and exams. (It is important to realize that the role of the text might be also be different for students with different learning styles and background knowledge.)

### **A little on using the chapter and text features:**

There are often chapter features, like chapter objectives, a summary by section, and review questions, which can be very useful in learning the textbook material. It can be useful to use those features in unconventional ways. For instance, you might want to get the "big picture" by looking at the summary, reading the objectives, or looking at the table of contents before reading the whole chapter. Or, you may want to read the summary portion for a particular section before and after reading that section. For "feedback", you may want to read one section of the text and then try to answer the review question(s) (out loud or in writing) related to that one section before going on. Or you could accomplish the same task by turning the objective for that section into a question and trying to answer it before going on. So, think about how you can use the text and chapter features (and, also the textbook Website, if there is one) to promote the rehearsal/feedback and retrieval of the textbook information.

### **Textbook Marking**

Textbook marking refers to anything you do on or near the text once you have identified something as being important to learn. It can be underlining, highlighting, coding (like boxing a technical term and its definition), simple labels (like "ex" and "def"), summarizing, outlining, charting, etc. Marking is vital because it gets you actively involved in selecting and organizing the information and gets you writing to start the rehearsal process.

Students frequently ask me about their highlighting: "Am I doing too much or too little, how can I know what's important to highlight?" etc. TOUGH QUESTIONS!

I ask them if they have thought what their purpose is for marking the text and how they would know if what they are doing works for that purpose.

Then, I say something like: "Of course, what you mark depends a lot on what role the book plays in the course and on your learning style". That comment always brings a sour look, one that usually tells me that they either think: a) I'm being a smart-alec, b) this is going to be too much work, or c) I don't have a clue but don't want to admit it.

Then, I really tick them off by saying that I think highlighting alone is pretty close to worthless!

Let me explain some of this. The purpose issue we have covered earlier. What you select has to be related to your best guess of what will be important to YOU in EACH class. So, there can't be a simple answer!

Sure, we can talk about main ideas and patterns of organization. These are the basics of reading comprehension. Learning to identify them would be very useful in all reading (and listening) situations.

Let's go back to highlighting. Why do you highlight something? Because it's important, right? Right, highlighting tells you at some later point that the information was important. What it doesn't tell you is WHY OR WHAT MAKES that piece of information was important! This is a key - it is so much more valuable, both as you are reading and later, to indicate what made this worth marking. For example: did you find the definition of episodic memory? If so, don't just highlight it, write "def. of episodic memory" next to it. Or code it, along with all your other definitions, in green highlighter. Or box the term and underline the definition with a regular pen. Or write the term and the definition in the margin. All of these are more active strategies that identify what made the piece of information important to learn. You are selecting and organizing. It also makes it easier to do feedback and to check retrieval later on (just turn the label into a question and ask yourself: What is the definition of episodic memory?)

For many students, the greatest value comes from the process reading of something, identifying a label for it and then putting it on or near in some form. You can use the headings, objectives, review questions, summary, key words, etc. for clues to how to label the information.

For example: You are reading in your textbook about skin cancer - in reading terms we call this the "topic". Whenever you find something that seems important, ask yourself: "What point is the author making here about skin cancer?" or "What is important to learn here about skin cancer?" Is it the types or kinds?, the causes?, the treatments? the stages of development? Whatever it is, don't just highlight or underline it - LABEL IT! Then you can go back and use the note in the margin to ask yourself: "What are the 3 main types of skin cancer" and work that piece of information into your LTM! (And, if at some later point, you need come back to the text, you won't have to read the whole thing over to figure out what about skin cancer made you want to turn that section yellow!)

### **Some other tips and techniques:**

- Try to read one heading or sub-heading's worth of material before marking rather than marking sentence-by-sentence. This gives you a clearer picture of the main points and how the details fit together.
- Try to develop a consistent coding system.
- Use brackets of various types in the margins (with labels, of course) rather than highlighting or underlining whole sections of text. For example: The author defined the term "boycott" and then gave a one-paragraph illustration of Rosa Parks and riding the bus... You could put a bracket next to the whole Rosa Parks paragraph and label it "BOYCOTT EX. - ROSA PARKS"
- Write margin markings in complete points and include numbers when appropriate (you'll be glad weeks later when you return to the text). For example: 3 types of memory, 6 steps in the information processing model, 12 memory principles, 4 main causes of the Civil War.
- Write markings as questions. For example: What are the 6 steps in SQ4R?

## SQ4R - TEXTBOOK READING STRATEGY

### SURVEY

Preview the content before reading.

- Read the objectives, introduction, summary, review questions.
- Read over headings and sub-headings.
- Look at graphs, charts, diagrams, etc.

Why? Brings background information up, promotes interest, gives an overview, shows organization.

### QUESTION

Before reading each short section (one heading or sub-heading), generate questions that may be answered in that small section of the reading.

- Use “who, what, when, where, why, how” to make possible questions.
- Ask yourself: What points will the author be making here about...?

What will be important to learn in this section about...?

Why? Makes reading more purposeful when searching for answers, improves concentration, makes main points stand out, shows how information is organized.

### READ

Read only a short section (only the material under one heading or sub-heading).

- Look for answers to questions you generated and any other important information.
- Don't take notes or mark yet.

Why? Helps to stay focused, promotes interest, avoids overloading short-term memory.

### RECORD

Go back after reading a short section to record key material.

- Make notes (on the text or on separate paper), outline, or map the key information.
- Look for ways to organize and categorize the pieces of information.
- Label the information in detail.

Why? Selects and organizes key information, makes a system for later study, helps promote learning through the writing process.

### RECITE or WRITE

Go back after reading and recording key information for a short section to recite or write key material.

- Say aloud or write out the key information in your own words.

Why? Checks understanding of material through feedback, uses different learning modes, promotes long-term memory storage.

### REVIEW

Go back at the end of the session to review key material.

- Make charts, concept maps, study cards.
- Say aloud or write out the key information in your own words.

Why? Reinforces key material, checks retrieval of information just learned, identifies problem areas.