Study Skills Workshop:
Reading Strategies

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Developing Metacognition

Metacognition is thinking about thinking, knowing "what we know" and "what we don't know." Just as an executive's job is management of an organization, a thinker's job is management of thinking. The basic metacognitive strategies are:

1. Connecting new information to former knowledge.

2. Selecting thinking strategies deliberately.


A thinking person is in charge of her behaviour. She determines when it is necessary to use metacognitive strategies. She selects strategies to define a problem situation and researches alternative solutions. She tailors this search for information to constraints of time and energy. She monitors, controls and judges her thinking. She evaluates and decides when a problem is solved to a satisfactory degree or when the demands of daily living take a temporary or permanent higher priority.

Studies show that increases in learning have followed direct instruction in metacognitive strategies. These results suggest that direct teaching of these thinking strategies may be useful, and that independent use develops gradually (Scruggs, 1985).

Learning how to learn, developing a repertoire of thinking processes that can be applied to solve problems, is a major goal of education. The school library . . . is an ideal place to integrate these types of skills into subject areas or students' own areas of interest. When life presents situations that cannot be solved by learned responses, metacognitive behavior is brought into play. Metacognitive skills are needed when habitual responses are not successful. Guidance in recognizing, and practice in applying, metacognitive strategies, will help students successfully solve problems throughout their lives.

STRATEGIES FOR DEVELOPING METACOGNITIVE BEHAVIORS

1. Identifying "what you know" and "what you don't know."

At the beginning of a research activity students need to make conscious decisions about their knowledge. Initially students write "What I already know about..." and "What I want to learn about...." As students research the topic, they will verify, clarify and expand, or replace with more accurate information, each of their initial statements.

2. Talking about thinking.

Talking about thinking is important because students need a thinking vocabulary. During planning and problem-solving situations, teachers should think aloud so that students can follow demonstrated thinking processes. Modeling and discussion develop the vocabulary students need for thinking and talking about their own thinking. Labeling thinking processes when students use them is also important for student recognition of thinking skills.
Paired problem-solving is another useful strategy. One student talks through a problem, describing his thinking processes. His partner listens and asks questions to help clarify thinking. Similarly, in reciprocal teaching (Palinscar, Ogle, Jones, Carr, & Ransom, 1986), small groups of students take turns playing teacher, asking questions, and clarifying and summarizing the material being studied.


Another means of developing metacognition is through the use of a journal or learning log. This is a diary in which students reflect upon their thinking, make note of their awareness of ambiguities and inconsistencies, and comment on how they have dealt with difficulties. This journal is a diary of process. You may wish to reflect on the following questions in your journal:

- What did you learn?
- Why was this important?
- How do you feel about this?
- How will you apply this learning?

4. Planning and self-regulation.

Students must assume increasing responsibility for planning and regulating their learning. It is difficult for learners to become self-directed when learning is planned and monitored by someone else.

Students can be taught to make plans for learning activities including estimating time requirements, organizing materials, and scheduling procedures necessary to complete an activity. Criteria for evaluation must be developed with students so they learn to think and ask questions of themselves as they proceed through a learning activity.

5. Debriefing the thinking process.

Closure activities focus student discussion on thinking processes to develop awareness of strategies that can be applied to other learning situations. A three-step method is useful. First, the teacher guides students to review the activity, gathering data on thinking processes and feelings. Then, the group classifies related ideas, identifying thinking strategies used. Finally, they evaluate their success, discarding inappropriate strategies, identifying those valuable for future use, and seeking promising alternative approaches.


Guided self-evaluation experiences can be introduced through individual conferences and checklists focusing on thinking processes. Gradually self-evaluation will be applied more independently. As students recognize that learning activities in different disciplines are similar, they will begin to transfer learning strategies to new situations.

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### The SQ3R Reading Method

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#### Survey! Question! Read! Recite! Review!

| Before you read, **Survey** the chapter: | • Read the chapter title, introduction, learning objectives, summary and end of chapter questions.  
• Also review bold face headings and subheadings, graphics, captions under pictures and italics throughout the chapter.  
• This will provide an overview of the chapter and create a mental framework for understanding the chapter more thoroughly as you read. |
| --- | --- |
| **Question** while you are surveying: | • Turn the title, headings, and/or subheadings into questions;  
• Read questions at the end of the chapters or after each subheading;  
• Ask yourself, "What did my instructor say about this chapter or subject when it was assigned?"  
• Ask yourself, "What do I already know about this subject?" |
| **Note:** If it is helpful to you, write out these questions for consideration. |
| When you begin to **Read:** | • Look for answers to the questions you first raised  
• Answer questions at the beginning or end of chapters or study guides  
• Reread captions under pictures, graphs, etc.  
• Note all the underlined, italicized, bold printed words or phrases  
• Study graphic aids  
• Reduce your speed for difficult passages  
• Stop and reread parts which are not clear  
• Read only a section at a time and recite after each section |
Recite after you've read a section:

- Orally ask yourself questions about what you have just read and/or summarize, in your own words, what you read
- Take notes from the text but write the information in your own words
- Underline/highlight important points you've just read
- Use the method of recitation which best suits your particular learning style but remember, the more senses you use the more likely you are to remember what you read.

TRIPLE STRENGTH LEARNING: Seeing, saying, hearing.
QUADRUPLE STRENGTH LEARNING: Seeing, saying, hearing, and writing!!!

Review, an ongoing process:

- After you have read and recited the entire chapter, write questions for those points you have highlighted or underlined in the margins. If your method of recitation included note-taking in the left hand margins of your notebook, write questions for the notes you have taken.
- Flip through the text and/or your notebook to re-acquaint yourself with the important points. Cover the right hand column of your text/note-book and orally ask yourself the questions in the left hand margins. Orally recite or write the answers from memory. Make "flash cards" for those questions that give you difficulty. Develop mnemonic devices for material that need to be memorized.
- Alternate between your flash cards and notes and test yourself (orally or in writing) on the questions you formulated. Make additional flash cards if necessary.
- Using the text and notebook, make a Table of Contents - list all the topics and sub-topics you need to know from the chapter. From the Table of Contents, make a Study Sheet/ Concept Map. Recite the information orally and in your own words as you put the Study Sheet/Map together.
- Now that you have consolidated all the information you need for that chapter, periodically review the Sheet/Map so that at test time you will not have to cram.

Another source: York University - SQ4R
Survey, Question, Read, Respond, Record, Review
TIPS FOR INCREASING READING SPEED

1. As our eyes move across the page they make a series of jerky movements. Whenever they come to rest on a word that is called a fixation. Most people fixate once on each word across a line of print. In order to make our speed increase we must take in more words with each fixation, rather than make our eyes move faster.

2. Try to avoid focusing on every word, but rather look at groups of 2 to 3 words. For instance, this sentence could be grouped in this manner: for instance / this sentence / could be grouped / in this manner.

3. Work on vocabulary improvement. Familiarize yourself with new words so you don't get stuck on them when you read them again.

4. If you find yourself moving your lips when reading, force yourself to read faster by following (1.) above so that you can no longer move your lips.

5. Read more! 15 minutes a day of reading an average size novel equals 18 books a year at an average reading speed!

6. Determine your purpose before reading. If you only need main ideas, then allow yourself to skim the material. Don't feel you must read every word.

7. Spend a few minutes a day reading at a faster than comfortable rate (about 2 to 3 times faster than your normal speed). Use your hand or an index card to guide your eyes down the page. Then time yourself reading a few pages at your normal speed. You'll find that often your normal reading speed will increase after your skimming practice.

8. If you have poor concentration when reading, practice reading for only 5 - 10 minutes at a time and gradually increase this time.

9. There are several books on increasing reading speed available in most bookstores or online. If you are serious about increasing your rate you may want to work systematically through one of these books.
Along with the very important skills of managing time and making effective notes at university is the task of reading. As you make the transition to university learning, changes in the way you must structure your time are apparent; there is much to do and you may quickly realize that you must take on the responsibility for structuring study and leisure times to be effective. Often, too, the transition to large lecture halls and note-making from lectures may be new to you; you have made notes in class before, but keeping up with the pace and volume of material presented can be a real challenge. Likewise, reading changes at university. For many students, though, the changes required are not so obvious as the sharp increase in reading load and difficulty. The transition I mean here is from the kind of reading we've been doing all our lives to a new way of approaching the reading.

As you enter university, reading takes on a central role as part of your approach to learning. It is very important to read independently and effectively to learn significant portions of a course of study. It may be the case that you have failed to develop strong reading skills. You hope that the reading approaches you have used up until this point will work for you. Sadly, too many students read passively, failing to construct accurate comprehension with the guidance of a purpose or goal for reading. The result is that too many students begin to dislike their reading and come to view it as a necessary evil. Reading doesn't have to be an onerous task that you dread. But, to avoid these ill feelings about reading, you will need to invest a little time to develop more active reading strategies. This may be the first time that you consciously use a strategy for reading and so it may feel awkward for a period of time. However, our experience shows, and reading specialists know, that an active approach to reading will likely be more productive and interesting for you.

What does it mean to read actively?

Reading actively actually means a series of things. Perhaps most importantly is that active reading means reading with an awareness of a purpose for reading. Far too often students read aimlessly, hoping that the key ideas will somehow "sink in" and then eventually "surface" when they need to. Having a purpose is another way of saying that you have set goals for your readings. In many university textbooks, you may find chapters that begin with a brief note on learning goals, but you may find that you pass over these goals in the rush to get to the end of the chapter. You can use goals to focus your attention on specific aspects of a chapter that you are about to read. Without setting goals you are, by default, saying that everything has the same value and that you want to learn it all in the same depth and in the same detail. This can sound like an admirable way to approach reading, but in practice this often leads to frustration when you forget large portions of the text soon after reading. You may find that the information seems to resist structure and logical organization because you have overloaded your mind with new information.

In addition to setting goals and purposes for reading, active reading may involve using the structure of your reading to construct an overview of the material. The structures of the reading materials vary almost as much as the readings themselves, but there are some common features associated with various kinds of readings that readers can make effective use of. Textbooks, for example, usually contain chapter titles, introductions, headings, sub-headings, bold face or italicized type, and conclusions. They may also contain chapter learning objectives, review questions, summary sections, application sections, and notes and key words in the margins. Clearly these are meant to be used and can go a long way to assisting a reader in understanding and working with the information there. Even if a text has few headings, readers can rely on the structures of the paragraphs contained in the text to access the same kind of information that the more prominent markers indicate: that is, the main divisions of ideas and how the ideas are elaborated. Novels and journal articles are bound by different structures, but an awareness of these can assist in an intelligent approach to the reading of these differently organized texts. The academic introduction to novels can provide a number of guidelines
for how to read the novel, for example, and the abstract of a journal article serves the function of summarizing the contents of the article for the reader in simplified language. All of these structures assist the reader in developing an overview of what is about to be read and this allows readers to guide themselves through the text with a focus in mind.

**Active reading is "thinking intensive"**

Active reading also certainly means reading with a view to understand and relate the information to other readings, ideas and themes from lectures, and to the goals of your course and your learning. As well, in the manner we talked about becoming conscious of your approach to reading, active reading involves checking your understanding, monitoring for difficulties, and checking for ways to correct difficulties. It should be clear from these aspects of active reading that active reading is brain intensive; that is, it involves thinking as you read and directing that thinking to achieve certain reading goals. Some students make the mistake of assuming that this means that active reading will be time intensive too and then use that as an argument against doing the work of learning effectively through reading. It is important to know that in fact, active reading has been shown to save time. It does take time to adjust to this new approach to learning, but active reading helps to eliminate the wasteful and often mindless repetition that is necessitated by forgetting what you have read. As well, an active approach to reading involves selecting information relevant to a purpose, which may mean that you are reading only a percentage of what others might be mindlessly reading and that you are reading with better results.

Okay, so active reading involves using strategies or approaches to texts to meet certain goals and is thinking intensive to facilitate learning. What else does the term active reading imply? Certainly active reading involves thinking about what is read rather than simply trying to memorize it. Often this thinking is aimed at mentally constructing a comprehension of the text by finding information related to your goals. Active reading can also apply to that time just after a reading has been done, during which time we should be asking analytical and critical questions about what we have read (discussed below) because these questions enable us to think beyond simply summarizing and repeating what an author has said. Though in some courses you may be able to get by summarizing what the authors you read are saying, most certainly there will come a time when you will be expected to offer your thoughts on what you have read. If you haven't read well enough to summarize you won't be able to think about the reading -- active reading is a way of approaching reading which goes beyond the bare minimum and engages you in the material in way which perks your interest and drives your curiosity. In short, active reading assists you in doing what you came to university to learn how to do -- think deeply about issues of importance to us in our society.

**A final word on active reading**

Some students try to make their approach to reading such that they will always read without difficulty. No strategy can guarantee that reading will proceed without difficulty (some difficulty may be a sign that you're working at the understanding). Remind yourself that it is important to remain flexible in your approach to reading, for different kinds of information as well as for different purposes. In this way you will allow yourself to approach readings in the ways most suited to those readings.

Also from York U - [Passive vs. Active Reading](#)