

Study Skills

Study Skills Overview

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Planning

Make Goals – What are you trying to achieve?

Different Plans – Different projects require different plans

Make it **MARC**:

- **Manageable**
- **Attainable**
- **Realistic**
- **Clear**

Time management

Time management is important because it can help **prevent cramming** and up-late-stressed-out-nights. Time management helps you **make daily, weekly, monthly schedules** and 'to do' lists.

- ✓ Make a timetable/Schedule – have specific time to study
- ✓ Be flexible – allow for downtime
- ✓ Work when you work best – Construct it to your schedule the best you can
 - Morning, Afternoon, Evening
- ✓ Most Demanding – Make sure you put your most demanding study when you work best
- ✓ Short Revision – 5-10 minutes at random times – Keep refreshing your memory
 - Flashcards
- ✓ Break-up your study – Keep study times capped at 45min blocks
- ✓ Make study-Revision a habit – make it a habit and keep at it – stick to your schedule

Memory and Concentration

To really learn well, there are two things you need:

- 1) The ability to concentrate and minimize distractions while you are studying
- 2) Memory techniques to help you remember what you have learned

Be an active learner

Many people approach studying from a **PASSIVE** way; they only read their textbook, attend lectures, and go over their notes. But they do not DO anything with that information.

Learners are more effective when they reorganise the information in a way that makes sense to them. You become an active learner with you engage with the material.

Ways to improve concentration and become an active learner:

- 1) Create a quiet, well-lit study environment
- 2) Study the same subject at the same time in the same location
- 3) Take notes on what you are studying and re-arrange the information in some other way
- 4) Make an association with something you already know
- 5) Make flashcards to study from and then have someone quiz you

This gets your body and mind into a routine that makes it easier to 'get into' studying

Make a diagram to get the '**big picture**' of what you are studying

If you are reading text, draw a picture of what you are learning

If you are learning from pictures (anatomy etc.) write down what you are learning in words

READING = DRAWING

DRAWING = READING

Helpful Memory Techniques

To memorize information, most students simply repeat what they have learned over and over. While repetition is one memory technique, it is surprisingly inefficient. Use a combination of memory techniques to create the ability to recall information.

There are several ways that memory can be categorized:

- 1) **Short-term vs. Long-term memory**
- 2) **Recognition Memory vs. Recall Memory**

So how can you move information from short-term to long-term memory so you can recall the information?

Short-term vs. Long-term Memory

Short-term Memory is used when you just need to remember something for a short period of time, like when you look up a phone number and dial it. Ten minutes later you'll probably not remember the number.

Long-term memory is used when you want to remember something for a long time, such as information for your Chemistry test. Memory techniques help move information from your short-term to your long-term memory.

Recognition Memory vs. Recall Memory

In **recognition memory**, you're trusting your brain to remember something when you see it or recognise it again. For example, you are going somewhere and you left the directions at home. You mostly remember how to get to your destination, but you can't remember the name of the street you need to turn on. You might think to yourself 'I will know it when I see it'.

In **recall memory**, you can remember the exact name of the street you need to turn on to. You have brought memory of the street name out of your long-term memory and into your short-term memory.

Reading for Memory

The **SQ3R** method is a proven method for getting more out of reading your textbook. Reading a textbook requires a different approach than reading for fun.

SQ3R stands for:

- ✓ **Survey**
- ✓ **Question**
- ✓ **Read**
- ✓ **Recite**
- ✓ **Review**

SQ3R Survey

Surveying provides a framework you can use to fill in information while you are reading a chapter

- Take about 5 minutes to locate core ideas from the chapter you are reading
- Read the instruction at the beginning of the chapter
- Flip to the end of the chapter and read the summary
- Flip back to the beginning, and go through the chapter. Look at the titles, words in bold or italics, and the pictures and illustrations.

SQ3R Question

Everyone sometimes gets to the end of a page and then you can't remember anything they read. Asking questions while you read will help end that cycle and help you remember what you just read.

- Ask yourself questions about what you are reading
- Stop at each new heading and ask yourself 'what did I just read?' and 'what am I about to read about?'

SQ3R Read

Read with a highlighter and pen handy. Highlight information of importance and jot in the margin why that information you highlighted is important.

- Read to answer the questions you have developed in the last step
- Make notes in the margin

SQ3R Recite

Reciting what you learn is one of the most important things you can do to transfer information from your short-term to your long-term memory

- Say the answers to your questions out loud
- Pretend like you are teaching someone else what you just read

SQ3R Review

Reviewing what you learn is essential in retaining information

- If you review what you learning within 24 hours of learning it, you will remember 80% of what you have learned
- If you don't review, you will only remember 20%. Then you just have to spend more time later re-learning the information.
- Also, think of the 'big picture' when you review. How does what you learned related to other things in the course/module?

Organising

Organise your time and notes

- Use your time wisely
- Switch topics every block/day
- Keep your concentration on your task
- Eliminate distractions (unplug internet, phone, study in a quiet place)
- Reward yourself when you have reached a goal!

Organising your Notes

- Good note-taking skills can help save time, energy, effort and avoid frustration
- Use a three-ring binder: helps you add and adjust your notes
- Use colourful tabs and page dividers to help you separate key areas

Note-taking

LISTEN: Pay attention and take notes during lectures

WRITE: Mark important parts in your notes

Have a system

Create a key for important parts

Use symbols, shapes, colours, numbers

Underline, highlight, circle

Use shorthand

Hints* If your lecture gives you hints or talks about an exam question mark it in your notes!

Add additional reading info to your notes, use a different colour or symbol to mark where you got this information (always keep track of the book, author and page number)

REWRITE: Reread, rewrite all your notes

Condense materials together

Check meaning and understanding

Rewrite handouts that you were given (or combine in your notes)

Keep things in clear handwriting (writing helps you remember – typing does not)

Mark where you get your material and notes (days of lectures, books,...)

CONDENSE NOTES – or – Flashcards

Using your revised notes, write and rewrite your notes

Making them smaller and smaller each time (use short hand, eliminate extra words)

Mind-map

- 1) Mind mapping is a very useful tool technique that can be used to organize your thoughts and plan your studies and work.
- 2) Draw a central word
- 3) Every time you come across an associated piece of information you can draw from the central word... adding to your mind map

EXAMPLE:

Topic of the module/course/textbook (Central word)

Main themes (Chapter headings)

Smaller branches – off from main themes (main aspects of chapter)

The Process

Below is the three step process to creating effective study notes from a textbook. If you find the explanation of the steps confusing, don't worry, I'll go through an example with you afterwards.

Step 1: Read

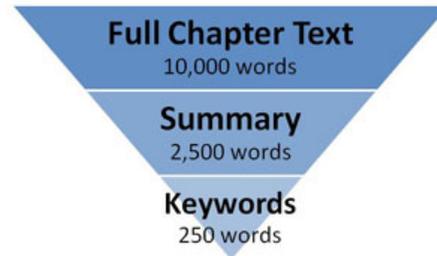
Read the first chapter as you normally would. Don't worry about memorizing concepts in detail. At this point you're just trying to get a general sense of the content.

Step 2: Summarize

Read the chapter again, but this time summarize the main concepts and strip out all the unnecessary information. You just need to extract the key points from the book and write them down as concisely as possible; do not write down the explanations word-for-word. For each key point, track the page number next to the header.

Step 3: List Key Words

Using the chapter summary from Step 2, create a list of key words. Most key words are simply the names of the concepts, but some key words may be sub-headers or important elements of the explanation. Every word in this list must have a purpose. Do not worry about grammar or smoothness, just keep it as short and as concise as possible. No full sentences are allowed. Only include key phrases and words that will help you remember the concepts.



Using this method, you can turn 10,000 words into 250.

An Example

I'm going to use the [Speed Memorization](#) tutorial as an example to show you how this process works.

Step 1 - 2,500 Words

Read the full tutorial.

Step2 - 422 Words

The Chunking System - Theory

- Order or patterns**
 - We remember things much more easily if there is a pattern or order. Ex: Sentences that follow correct grammatical rules are much easier than ones that don't.
- Chunking**
 - Our brains are adept at memorizing in chunks that are ideally about three to four units long. This applies to digits (e.g. phone numbers), words (e.g. brand names) and phrases (e.g. slogans)
- Repetition**
 - With enough repetition we can memorize anything.

The Chunking System - The Process

- Determine the order (or pattern)
 - Ex: Categories, alphabetical & size
- Determine the chunk size
 - Usually three to four units
- Memorize the first chunk
 - ~90% memorized is okay
- Memorize the second chunk
- Memorize the first two chunks together
- Memorize the third chunk
- Memorize the first three chunks together
- Repeat

For speeches you have to use **variable size chunking**. The size of each chunk will vary depending on what you feel to be an appropriate size.

Sets

You must divide the content into "sets" and start from the beginning when you get to the next set. Examples of common set sizes are: full paragraphs for speeches or 35 words for lists.

Why it works

In addition to quickly memorizing words, The Chunking System also has many additional advantages:

1. Easily **pinpoint problem areas**: Can easily see where you keep getting stuck.
2. Easily **observe % of completion**: If you're 50% through, you're 50% done.
3. Ensure **older terms get more practice**: With other methods, the older terms are often neglected and forgotten.
4. **Time efficient**: There is no flipping of cards, no shuffling and reorganizing. All you have to do is keep repeating and moving forward.

Additional methods

Visualization	Imagine vivid images and scenes of the concept	Use for descriptive ideas
Multiple Interpretation Approach	Repeat concept w/ different approaches (e.g. draw it, converse about it, act it out, etc.)	Use for particularly difficult concepts
Mnemonic Devices	Use acronyms, rhymes and other tools to link to concepts	Use for things that are difficult to organize (e.g. numbers, scientific names)
Random Repetition	Flash cards	To test recall (before an exam)

How memory works

1. Create a **strong** memory: Chunking & Visualization
2. Create a **well-connected** memory: Multiple Interpretation Approach
3. Create a memory **trigger**: Mnemonic devices

Long-Term Memory

You must constantly review to retain in longer term memory, otherwise it will be quickly forgotten.

Step 3 - 53 Words

Efficient memorization (Chunking System) = order + chunking + repetition
Ideal chunk size = ~3, but sentences = variable chunking
Benefits: pinpoint problems, observe % completion, older = more practice, time efficient
Visualization vs. Multiple Interpretation Approach vs. Mnemonic Devices vs. Random Repetition
Strong memory vs. well-connected vs. trigger
Review to retain long-term

With this method, I've managed to condense the tutorial from **2,500 words -> 422 words -> 53 words**.

Studying

Tips for studying by yourself:

- Schedule a set time each day during your 'alert' times of the day
- Choose a quiet, comfortable, distraction-free area
- Study your most difficult or least favourite subjects first
- Take study breaks and avoid marathon/cram sessions
- Grab stolen moments of time to study

Tips for studying in groups:

- Select group members who are as concerned about being successful as you are
- Share the responsibility of teaching and learning
- Use study groups to complement personal study time – not replace it
- Try to stay on track
- Meet in a location that is free from distractions
- Read the material before the meeting so you can contribute to the discussions

Study Groups

Study groups can help students share study strategies and quiz one another before a test. Effective study groups have a common goal to do one's best. When a group works together towards a shared goal they are more likely to achieve it. Group mentality takes over (Wigfield & Asher, 1984).

Learning Styles

People learn in different ways and everyone needs to find out which way works for them. These different ways are often called '**learning styles**'.

There are 3 main learning styles:

- Looking
- Listening
- Doing

Looking

This is often called '**visual**' and it means you like to see something and learn it. For example if you learn how to change a tyre on a care you would prefer to see it being done rather than just to be told about it or follow a set of instructions.

Listening

If you are the type of person who can take things in simply by listening to information this may be the way you learn best. Also, if you are able to memorize music and lyrics very easily, you are probably this type of learner.

Doing

Maybe you like to experiment with things to find out more about them, to learn about things by actually doing them

- Howard Gardner, Theory of Multiple Intelligences (1983)
Developmental Theory – Google multiple intelligences quiz to find your learning style.

USE YOUR LEARNING STYLE TO HELP YOU MAXIMIZE YOUR LEARNING

- 1) Bodily-Kinesthetic (Movement) – move while you study... change positions
- 2) Linguistic (Language) – Read your notes out loud (record and listen again)
- 3) Interpersonal (People) – study in groups, peer teach
- 4) Intrapersonal (Independent) – Find a quiet space to study alone
- 5) Musical (Music and Beat) – Make a song about what you are studying
- 6) Spatial (Visual) – Make notes into pictures, using colors and shapes
- 7) Logical (Patterns, Numbers) – Find and make patterns with your information
- 8) Naturalist (Nature) – Study outside, or in open spaces, walk and read note cards

Test taking – Ways to stay calm!

Before the exam

Get a good night sleep before
Give yourself enough time in the morning to do your regular routine
Eat a good, nutritious breakfast
Give yourself positive, reassuring statements ‘I can do this’
Quit studying at least half-an-hour before the exam and allow yourself to relax
Don’t rush

During the exam

Avoid students who may make you anxious before the exam
If possible, sit in the seat you normally do
Be sure to read all directions, carefully
Look over the test and do the questions worth more points
Read each question twice, slowly
Do the easiest questions first, and come back to the ones you are unsure of the answer

Physical & Mental Well-Being

Restore your body to a calm state before you study or test

- Breathing – Breathe for 6 seconds, hold for 6 seconds, breathe for 6 seconds – REPEAT
- Visual Imagery – Imagine you are in a place you love
- Muscle Relaxation – Tighten your muscles for a few seconds, then relax them