



Southbank
Institute of Technology

Education for aspiring minds

Managing your Studies

Memory and Concentration



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Practising your memory and concentration skills will help you to improve your chances of success as a student.



Introduction

Concentration and memory work together but one does not lead to the other. To concentrate is to direct your mental powers or your efforts towards a particular activity, subject or problem. Memory is the ability to remember information, experiences and people. There are some specific skills that can be learned to enhance both concentration and memory. Practising these skills is likely to improve one's success as a student.

Once something is stored in our brain, we never forget it but may have difficulty recalling it. It is also possible that the information we are trying to recall was never stored. This handout will help you understand the structure of memory and suggest some skills you can use to try to improve your memory as well as providing some tips for improving concentration.

Activity

Read the 12 words on this page and then go to a blank piece of paper and write down as many of the 12 words as you can from this page.

Once done, return to this page.

- Glass
- Fall
- Speaker
- Basket
- College
- Medium
- Hello
- Final
- Ready
- Frame
- Shoes
- Spoil

How did you do? Were you able to recall all 12 words? If so, you are already practising good concentration and memory skills. If not, some of the strategies discussed in this handout may help you improve your concentration and memory skills.

Factors that can impact on concentration include the study environment and the structure you have for your study time. Factors that can impact on memory include the way you organise the information, how you use your body in the study process, how you use your brain in the study process and whether you include time for recall.

Concentration Basics

We can divide strategies for improving concentration into two categories. Each category can include numerous strategies. It is not necessary to do all of them but the more of them you use, the more likely you will be able to improve your ability to concentrate.

- **Study Environment:** Should be distraction free; have conditions conducive to studying (i.e. chair, temperature and lighting); and all the materials you need for studying are present. (See Study Environment handout for further information)

- **Structure for Study Sessions:** Develop realistic goals for the study session; decide the order in which you will complete tasks; and plan a reward.

Before we look at the memory basics, we are going to take a look at how memory works, both short term and long term memory.

How Does Memory Work?

- Memory is like a library; it can store enormous amounts of information;
- Memory has two core components: short-term memory and long-term memory.

Short Term Memory

This includes what you focus on in the moment, what holds your attention. Most people can only hold about 7 items of information in short term memory in any given moment, although some can hold up to 9 items.

- Look at example A. Then look away from the paper handout and try to hold it in your short-term memory.
EXAMPLE A = 6593028
- Most likely, you can hold it as long as you choose. Now follow the same procedure with example B
EXAMPLE B = 573927450621

It's much more difficult, if not impossible for most people.

Short-term memory is exactly what the name says: short term. To learn information so you can retain and recall it, you must transfer it from short-term memory to long-term memory.

- It is however possible to increase the capacity of short-term memory simply by organising information appropriately e.g. instead of remembering each individual number in this list 6593028 you could break this into sets of information e.g. 65 93 02 8 – in other words instead of seven pieces of information you have four.
- For example B you could break it into sets of threes e.g. 573 927 450 621 and therefore more likely to recall it from short-term memory.

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Long Term Memory

This includes all the information that you know and you can recall. In many ways, it becomes a part of you. Once information becomes a part of your long-term memory, you'll have access to it for a long time.

To get information from short-term memory to long-term memory requires two main activities – REPETITION & RECALL – This is learning.

Learning depends on remembering; no learning can take place without retention of knowledge. A powerful memory is a tool of efficiency; learning once and working to retain that memory takes far less time and energy than relearning over and over again.

Memory Has Three Stages

- **Encoding Stage:** Information is changed into useable form by the brain
- **Storage Stage:** Your mind holds the information in one of the three storage banks
- **Retrieval Stage:** The information is retrieved for use by recall.

How To Get Information from Short-Term Memory To Long-Term Memory

Rote learning means learning through repetition, mechanically, with little understanding. Eg. as a child you probably memorised the alphabet and the multiplication tables by rote.

Learning through understanding involves learning and remembering by understanding the relationships amongst ideas and information. Rather than using rote, you use logic memory.

Eg. you use logical memory when you remember the main and supporting facts from a lecture not because you repeat the ideas in your mind, but rather, because you understand them.

Both types of learning and memory are useful and often are used together.

For example, in history, you need to relate facts (like dates), which are memorised by rote to your understanding of historical concepts (like the Civil War).

Key Elements Of Memory

REPETITION: which is repeating information until it is readily and easily remembered.

RECALL: this is the effective retrieval of information from the memory banks. If you are able to retrieve the piece of information effectively three times in a row then you have placed it in long-term memory.

Memory Skills

Now that you understand a little better how memory works, the next few pages will now review 4 skills that can improve memory:

- Organisational skills
- Using your body
- Using your brain
- Including time for recall.

Organisation Skills

- **Learn main ideas first, then details:**
At the beginning of the semester, **preview your textbook** for each chapter to get an idea about what you will be learning in the class. Prior to reading each chapter, **preview the chapter** to gain an understanding of the topics and what you will be expected to learn. This will provide a framework for understanding the details.
- **Make the information relevant:**
Try to make connections between what you are learning in class with your future career. This will make it easier to learn and remember.
- **Link the information you already know with new information.**
Creating associations also makes the information easier to remember as information is stored in our brains according to a scheme. Creating these associations helps to fit the new information into the schemes that already exist in your brain.

Using Your body

- **Use your body and your senses to help build memory:** It has been said that 'people remember 90% of what they do, 75% of what they see, and 20% of what they hear'. Learning actively can involve your whole body. You can stand up and talk aloud as you study, using your arms, legs, eyes, ears and voice. This puts energy into the study process and makes it less boring.
- **Relax:** Have you ever been unable to recall information in a test situation but an hour later you were able to remember the information with clarity? Relaxation allows more blood to flow to the brain and thus allows us to **think more clearly**.
- **Use visualisation:** The more visual you can make the learning process, the easier it will be to recall the information. Be creative and use your imagination. Create mental images that you can associate with the information you are trying to learn.

Using Your Brain and making It More Cognitive

- **Over learn the material:** Short-term memory is not very effective in test situations as it has limited capacity and does not respond well under stress. Long-term memory is much more reliable and has unlimited capacity. Moving information from short-term to long-term memory requires time, energy, understanding and repetition. Study your material multiple times using different study techniques and vary the order in which you study it. The "recency effect" says that we remember what we heard or learned last the best. The "primacy effect" says we remember what we heard or learned first the best. If we always study material in the same order, the same material is always first, last and in the middle.

- **Adjust your attitude about learning:** If you find a subject boring or uninteresting, it will be harder to learn but if you are taking flying lessons to become a pilot, you will tend to pay close attention to the instructor because learning the material is very important for your safety. While it's not life or death, try to have a positive attitude about your classes. Wanting to learn the material and believing that you will succeed, contributes to the ease with which the material is learned.
- **Practise multiple techniques for each class:** Use a variety of study techniques to learn the material. Just make sure you are choosing the most appropriate technique for the type of material you want to learn.

Time For Recall

- **Plan review time regularly:** You can review your notes silently, read them aloud and listen to yourself, write down the main points from your notes, create ways to apply the information, test yourself on your notes or teach information to a friend.
- **If you can't remember something, brainstorm:** The trick is to create connections between the information you are trying to learn and the information you already know. If two concepts are similar and you remember information about one of them, you may find that you are able to recall the information about the other. Try to create examples and make connections between the materials you know and the material you are trying to learn.

Need Further Assistance?

If you continue to experience difficulty in managing your studies and are not obtaining the grades you would like, talk with a Southbank Institute of Technology counsellor about further strategies to improve your study time.

Southbank Institute of Technology Counselling Service

To make an appointment, contact the following number:

Phone: 3244 5095

studentsupport.services@deta.qld.gov.au

Sources

This information was acquired from the following website: www.ucc.vt.edu/stdysk/stdyhelp.html (2002) Virginia Polytechnic Institute and State University (Cook Counselling Centre).

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