

Memory, revision and exam techniques

Academic skills guide 3



**Produced by Dyslexia Support
Enabling Services**

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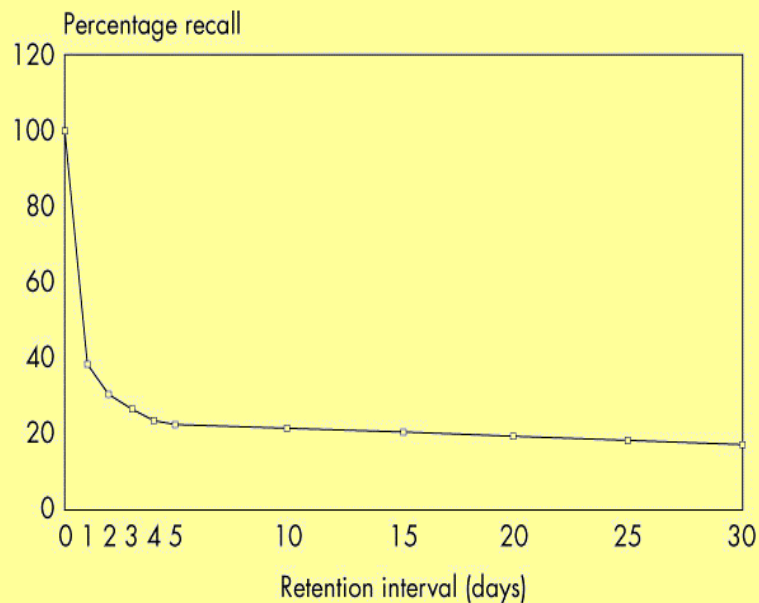
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Introduction

Memory is a very important part of learning, and one which often worries dyslexic students. It *is* possible to improve your memory, but there is no magic wand; hard work is involved. However, developing memory techniques that suit you will be useful for life as well as university!

Ebbinghaus' Forgetting Curve



Ebbinghaus' famous research on memory decay took place in the 1880s, but is still valid: 80% of what you learn today will be forgotten within 24 hours if you do not make a conscious effort to remember it. However, Ebbinghaus was researching the memorisation of nonsense material. It is easier to learn meaningful things.

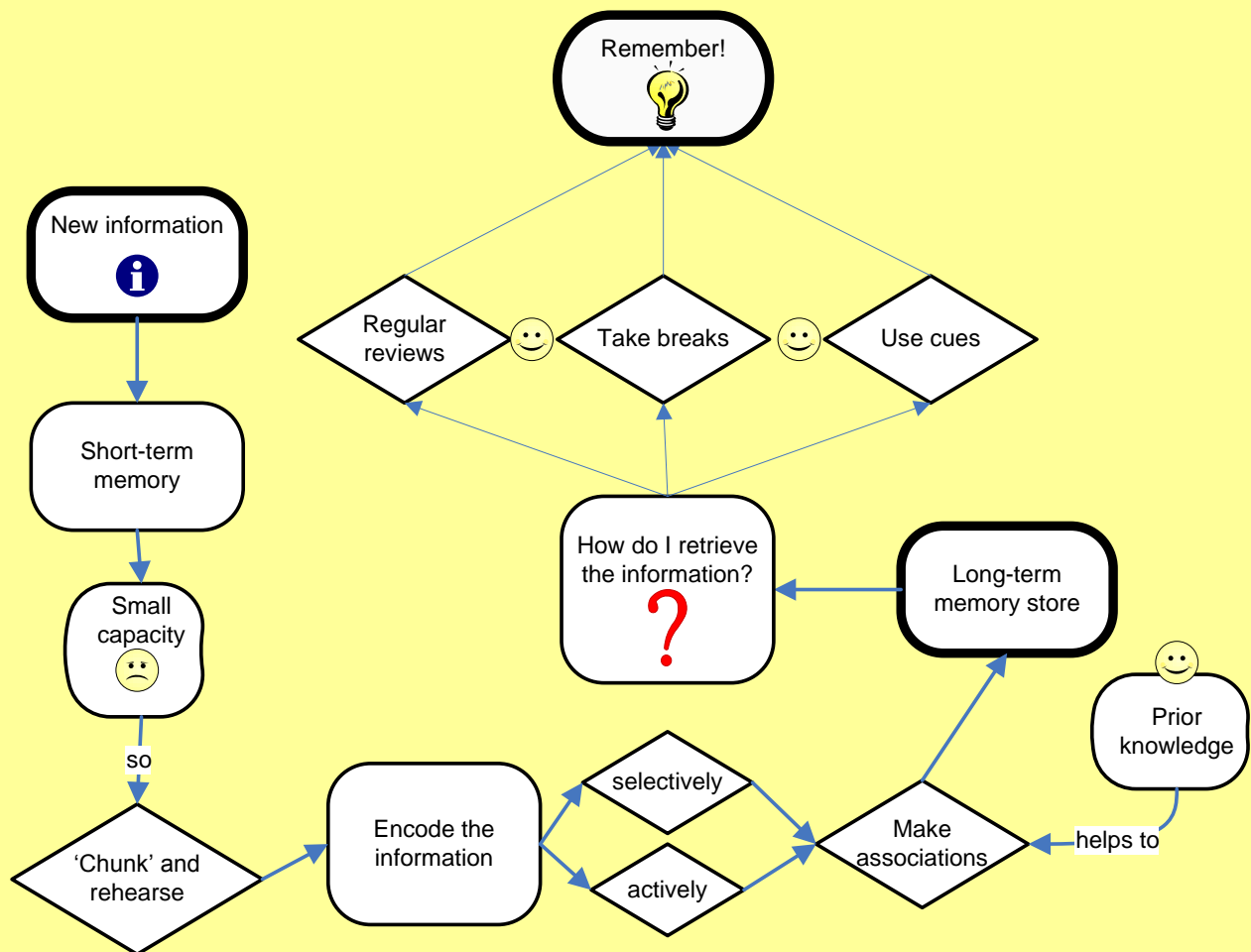
It is also very important that you regularly review the knowledge that you are acquiring; this is how things move from short-term to long-term memory and become easier to recall at speed. **Effective revision is an ongoing process, not a cramming session just before the exams.** This strategy also helps you to acquire a knowledge base rather than simply to pass an exam and then forget the information.

Prior knowledge and understanding also affect learning. It is *vital* to understand new material before trying to remember it; a clear and correct memory trace cannot come from a poorly understood concept.

This booklet takes a brief look at different aspects of memory, techniques for regular reviewing and revising, and exam strategies and challenges. More information can be found here:

http://web-us.com/MEMORY/human_memory.htm

Remembering: an overview



You need to be focused and alert in order for your memory to work. If you are not concentrating when taking in new information, either in lectures or when reading, you cannot hope to remember properly. Equally, if you do not understand the new information, there is no point in trying to remember it. Work on the understanding first; fill in the gaps. Then record the information in a form other than written or printed text, such as a mind-map, audio file or flash cards.

Association is very important. Whenever possible try to see if you can associate or **link** new information in your brain with something you already know. Before you start learning a new topic:

- Record *anything* you know about the subject.
- Download lecture slides in advance for some prior knowledge.
- Do a bit of background reading and research.
- Look up any unfamiliar terminology and note it.

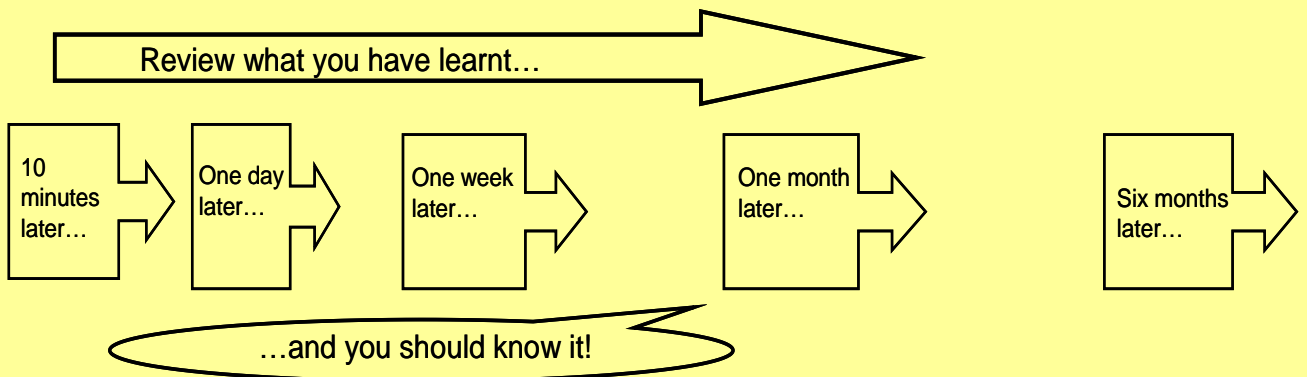
All these things will help your understanding, and consequently your memory. You will learn better if you are interested and engaged.

Review

Review should be an **active** attempt to hook the facts into your visual, auditory and kinaesthetic memory. This is why multisensory learning is so important. Review does not just mean repetition or reading through; you need to work on the material in different ways. Mind maps can be particularly useful as they present information in a visual form, which many dyslexic people find easier to remember.

The first review should ideally take place immediately after the learning session, or at any rate the same day. At the end of a learning session, your ability to recall the material actually rises; it peaks after about 10 minutes and then falls off dramatically. If you can do your review at that 10 minute point, you will reinforce the information at its strongest. However, even if you can't review straight away, taking a few minutes to **think over** what you are trying to learn is what neuroscientists believe is necessary to begin to shift material from short- to long-term memory.

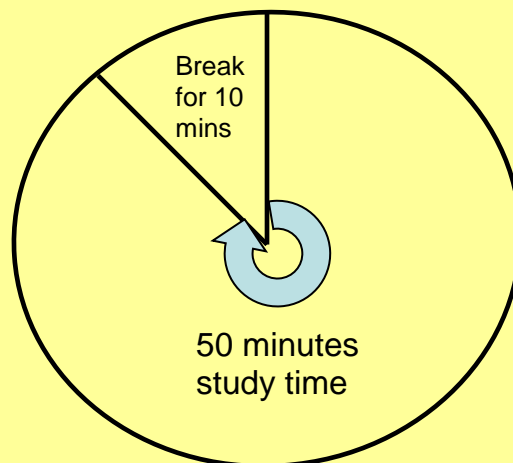
Each additional review engraves the learning deeper and deeper in your mind. Reviewing should also be quite quick. Rework and condense the material so that you can remind yourself quickly.



Taking breaks

Split your personal study time into 50 minute chunks with 10 minute breaks in between.

It is important that you consciously relax or do something physical or creative during the breaks. This helps to refresh your brain.

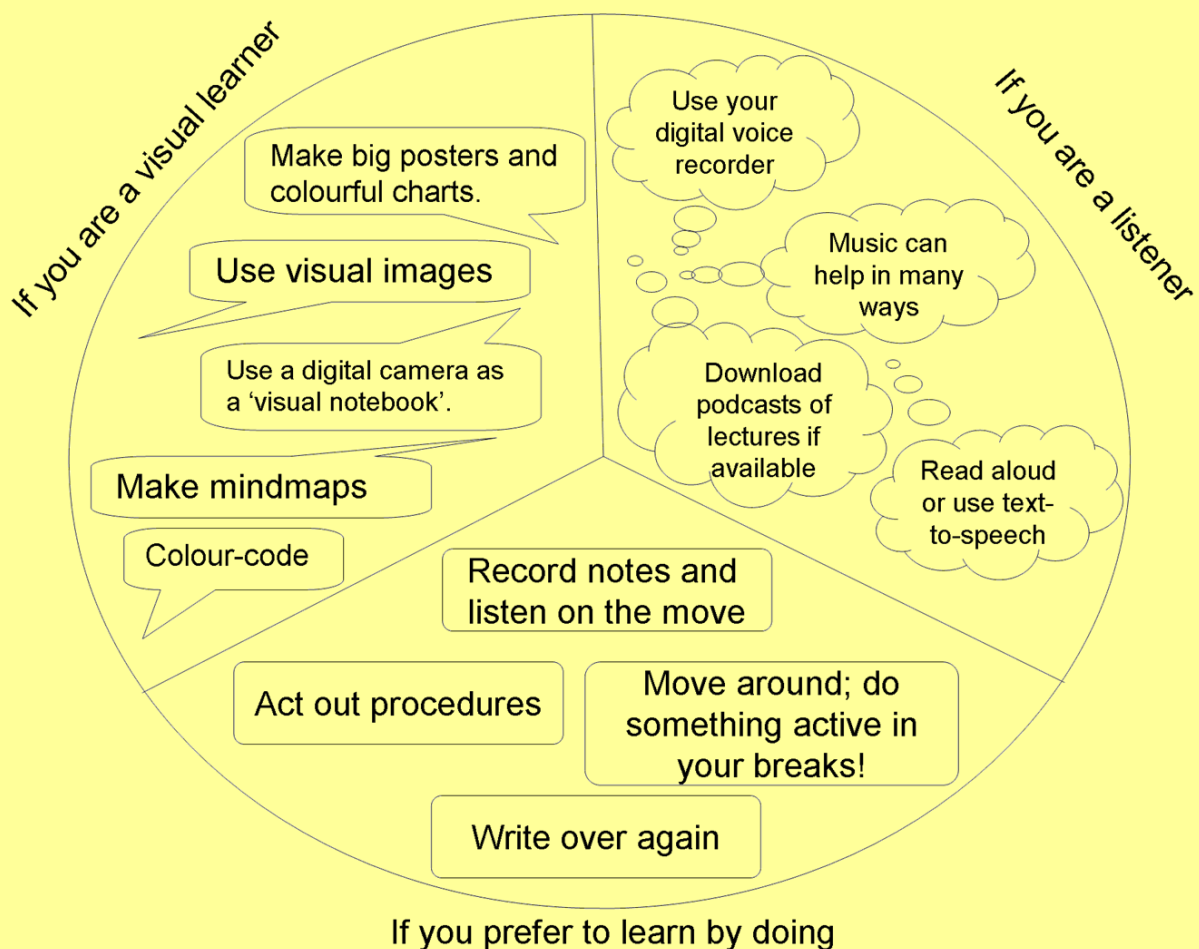


For example:

- Stand up and move around and take deep breaths
- Drink water: your brain needs water to function well
- **Do not** break your concentration with phone calls, texting, surfing the web or visiting social network sites
- Make sure you eat at regular intervals to maintain blood sugar and energy levels.

Make your preferences work for you

Some people find that they learn best using highly visual cues, others prefer listening, reading, doing, singing, reciting...there aren't any right or wrong ways to learn or memorise, just ones that work for you.



But best of all, **look, listen** and **do**. Multisensory learning is the most effective.

See This Site! www.lexdis.org.uk for many creative ideas from students about how to work, learn, record information and revise.

If you think of yourself as **visual**:

- Make big posters and colourful charts.
- Put these up all around your space and look at them often.
- Make mind maps, either on paper or on the screen.
- Use visual images in your revision cards or mind maps.
- Make good use of colour.
- Use a digital camera as a 'visual note-book'.

Colour and images are good memory aids.

If you learn best by **listening**:

- Record your learning materials or revision notes on your digital voice recorder.
- Speak your revision summaries aloud to yourself.
- Ask yourself, or someone else, questions.
- Record a series of questions and answers, leaving a gap for you to say the answer aloud before hearing it.
- Look out for podcasts of lectures.
- Read aloud to yourself or use text-to-speech software.

Using music as an aid:

- Associate different tracks or albums with different topics, and always match them up. Remembering the music should help you remember the topic.
- Create a rhythm so that you tap out the key points of the information as you are learning.
- Make song lyrics out of your notes.
- Make up a tune so that the low notes and high notes are associated with different things.

Reciting or reviewing out loud strengthens the neural traces made to your brain.

If you prefer to learn by **doing**:

- Act out procedures if possible.
- Move around while you are revising.
- Write your notes repeatedly – but don't just copy.
- Record your notes, but listen back while you are on the move.

But best of all, engage all your senses **actively** for multisensory learning!

Making Links

Our memory works by building links. We remember things which are associated in our mind by repetition, sense, colour, rhythm, rhyme, or anything which is unique, absurd or unusual.

Mnemonics

This strange-looking word (pronounced ne-mon-ix) simply means memory-joggers. The best ones link the thing you are trying to remember with the mnemonic itself. Even better is to make them up yourself.

Here are a few useful spelling mnemonics:

- **Rhythm:** Rhythm has your two hips moving.
- Accommodation: Two cots need two mattresses in any accommodation.
- Stationery is paper. Stationary is a parked car.
- Necessary: It is necessary to have one collar and two sleeves.
- Practise (is is a verb) and practice (ice is a noun)

Watch this YouTube video for some more help with mnemonics:

www.youtube.com/watch?v=WkVhTb6hIZ8

You can explore other links to memory videos on the same page.

For medical mnemonics see <http://www.medicalmnemonics.com/>

If you are serious about wanting to develop memory techniques, www.lumosity.com/ has exercises at several levels to train the memory. It's not a free resource, but could be considered an investment, like joining a gym! There is a 30 day free trial.

Exams

Do not fall into the trap of thinking that a good memory is the only thing you need for passing exams. Exams tend to be about what you **understand**, more than about what you can **remember**. If you revise effectively, throughout the year and before the exam, and have a good understanding of the subject, then you have the potential to do well.

It is **crucial** to adopt a positive mental attitude. Nerves are fine in moderation, but not if they become disabling. Think of an exam as a challenge, a way to demonstrate your knowledge. If you have been working steadily and have succeeded in your assignments, there is no reason why you should not do well in the exam.

Ideally, you should have been reviewing your work throughout the year as discussed above. If not, you still need to allow plenty of time to revise – at least 6 to 8 weeks. You will need to get organised and start your revision well in advance of the exam start date. At all costs **avoid last minute panic and cramming**.

Revision strategies

- Break down your subject into topics.
- Plan your revision timetable in detail – but not as an excuse not to get on with the revision.
- Don't spend all your time on the interesting things!
- Allow some free time – all-night marathons are not the way to revise.
- If you haven't been reworking and condensing your notes throughout the year, start to do so now!
- Revise everything more than once – overlearning is important for retention.
- Share revision time with a friend sometimes.
- Try explaining your topic to someone who does not know anything about it. If you can do this, it proves that you understand it.
- Constantly be on the look-out for issues and themes.
- Practise writing under timed conditions and be realistic about how much you can produce in the given time.

Look, cover, write, check.

This is an old and trusted technique that still works for many people:

- Revise a section of work
- Cover it up or put it aside
- Write down or record as much as you can remember
- Check against the original
- Highlight anything you got wrong or forgot
- Prioritise these areas for future revision

Past papers.

Going through past question papers is very helpful. You can familiarise yourself with the format of the paper and the wording of the questions. Past papers may also act as a guide to the types of topic which crop up in the exam, but do not rely on this too much! Practise making brief plans to answer the questions. You do not need to answer the question in full, but by going through what you know, selecting the most relevant material and ordering it coherently, you are practising a technique which will be used in the exams.

Enabling Services dyslexia practitioners can offer more detailed advice on all these issues.

Techniques for the exam itself

Plan your exam time in advance. Set a time limit for each question. Take your watch off and place it on the desk so that you can keep to your time frame. Allow time for planning and checking.

When you have a paper with multiple choice or essay type questions read through quickly to start with:

- ✓ the ones you can do.
- ? the ones you are unsure about.
- x the ones you definitely cannot do.

Look very carefully at each question before starting your answer to make sure you understand exactly what is required.

Box the instruction words.

Underline the key points.

Make a quick plan.

Get to the point quickly. Make it clear through punctuation or sub-headings where one aspect of the question has been answered and another begins.

Try not to give vague, generalised remarks but do give plenty of explanations and examples. Examiners can only give you credit for what you actually write; they do not assume any knowledge.

Book an individual dyslexia tutorial to discuss key words used in exams and to get tailor-made help for your situation.

Coping with pre-examination stress

- Do not drink too much caffeine – it encourages over-production of adrenalin. Try herb teas or fruit juices instead.
- Try relaxation exercises or music.
- As the starting time looms, think of all the things you can do, not all the things you cannot.
- Allow yourself time for rest and recreation.

Some reasons why you might not get the grades you hope for

Exams are not meant to trick you, but to give you the chance to demonstrate your knowledge. Exams also aim to see how well you can **select** from your relevant knowledge and apply it to the particular question. Sometimes students do badly, not because they have not revised or do not have sufficient knowledge, but because they try to write down **everything they know** about the topic and so do not answer the question properly.

Some of the main reasons why students fail to gain the marks they hope for:

- Failing to answer the question set.
- Misinterpreting the question, perhaps because they misread the instruction words or specialist terms.
- Not reading the instructions carefully.
- Not writing answers in the way they are required.
- Not referring sufficiently or selectively to the course material.
- Running out of time, so that the final question is not answered in sufficient depth.
- Not checking through the paper carefully to avoid obvious mistakes, such as dates or simple mathematical calculations.
- Writing long, complex sentences where the meaning gets lost.
- Illegible handwriting.

For further reading

- Price, G. and Maier, P. (2007) *Effective Study Skills: Unlock your potential*, Harlow, Pearson.
- Buzan, T. (2000) *Use Your Head (2nd Edition)*, London, BBC.
- Cottrell, S. (2009) *The Study Skills Handbook, 3rd Edition*, Basingstoke, Macmillan.
- Cottrell, S. (2006) *The Exam Skills Handbook*, Basingstoke, Macmillan.
- Michelon, P. (2012) *Max Your Memory, the complete visual programme*, London, Dorling Kindersley.

Academic skills guides available from Dyslexia Support

1. Academic writing
2. Dissertations and project writing
3. Memory, revision and exam technique
4. Note taking and note making
5. Organisation and time management
6. Reading and research skills

View on line or download

www.soton.ac.uk/edusupport/dyslexia

Do you know about the *Study Skills Toolkit*?

This is a set of interactive online resources to help you develop your academic skills.

Log into the University's Blackboard website

www.blackboard.soton.ac.uk and look for the link to *Study Skills Toolkit*

There is also the EAP (English for Academic Purposes) Toolkit for international students.