Learning Services



7 Tips for Processing and Retrieving Knowledge

When revising for an exam, do you have difficulty remembering facts and information about your topic?

Do you read through your notes again and again but struggle to remember and recall the main points when needed?

Why do we forget?

Hermann Ebbinghaus was a German psychologist who studied memory and formulated **The Curve of Forgetting**. He found that when people learn something new, their memory of this weakens rapidly over time. According to Ebbinghaus, reviewing new information learned regularly increases our retention of knowledge.

This fact sheet will introduce some memory and recall techniques that can help you remember the information necessary to respond to exam papers.

Memorising and recall techniques

1. Glossary

A glossary helps you understand definitions and can be used to memorise essential information. Create a glossary by writing down key terms, theories, ideas, or techniques you need to learn. Under each term, write a short explanation and give an example of how this term might be applied. Place your glossary above your desk or in your revision folder and go through each entry regularly or read each aloud.

See our Written and Visual Glossary worksheet templates and create your own!

Library and Learning Services

Study Development



YORK
ST JOHN
UNIVERSITY
Library &
Learning Services



2. Elaboration technique

Choose an idea that you need to memorise and recall for your exam, and set yourself a challenge where you will explain this to two different people every day. Explain to others in your own words what the idea is and how it can be applied to a scenario without looking at or using your notes.

3. Blurting technique

This is an active recall technique that can help to remember details about a topic. It helps you retrieve information from memory, and by testing yourself on a topic repeatedly, you are learning in an active way. Here's how it works:

Step 1. Read key texts or resources about a topic relevant to your exam, then close all revision materials used.

Step 2. Get some paper and a pen and write down everything you can remember about the topic you have studied. Blurt everything out onto the piece of paper!

Step 3. Revisit your texts and learning resources and note any key information you missed. With any ideas you had missed when blurting, carry out extra reading or study these areas to strengthen your knowledge and understanding.

Step 4. Repeat the blurting process repeatedly to improve your memory and recall of a topic.

4. Mnemonics

This is a method that helps you to remember information by association. There are different ways that you can create associations, including; **word mnemonics**, **visual mnemonics**, **acronym mnemonics** and **rhymes**. Using mnemonics can help you to remember information with either a catchy term or abbreviation.

Word or Acronym mnemonics is an association that has been created from the first letter of each word in a list that creates an acronym, for example:

Library and Learning Services

Study Development



Library &

Learning Services Order of Maths operations: **BODMAS** – (Brackets, Orders, Division,

Multiplication, Addition, Subtraction.)

Compass directions: (Never, Eat, Shredded, Wheat - North, East, South, West.)

Visual mnemonics works by taking an idea or information you need to memorise and selecting a visual cue, an image that you can associate it with. So, whenever you look at or visualise the image, it can help you to recall the information needed as this method enables us to process information faster and remember it for longer.

Step 1. Identify a piece of information that you need to memorise and recall.

Step 2. Create, draw, or find an image that your mind can associate with an idea and give your picture meaning.

Step 3. Revisit your image regularly, as this will help you to recall the information that it is associated with.

Acoustic encoding is also a useful memory technique as it enables you to create associations through auditory means such as rhyme and song; it can help you to remember and recall information. You can revise a topic by learning content to music, verse, humming, or even by rapping it!

5. The Method of Loci

This is another mnemonics memorisation technique. Loci is a Latin term that means place or locations. This immersive method involves choosing a location that you are familiar with and can easily visualise. In the location you are picturing, you will notice key spots or features where you will create and attach key ideas and information. By creating visual associations, it will help you to easily recall information about a topic when needed.

Step 1. Choose a location you can easily picture in your mind.

Library and Learning Services

Study Development



Library & Learning Services

Step 2. Visualise key spots and features in your location.

Step 3. Create associations by attaching key ideas to each spot or feature.

Step 4. Visually walk through your place, notice key spots or features in it, and recall associations given to these areas.

Access Big Think's video with illusionist Derren Brown, who explains The Method of Loci.

6. The Leitner Method

This method uses flashcards to prioritise learning, where challenging topics are studied more frequently until they become easy. It helps you to spend more time studying content you are least familiar with and also enables you to review information that you may be more confident with.

Find three shoeboxes; label the first 'every day,' the second box 'Tuesdays and Thursdays,' and the third box 'Once per week.'

BOX ONE

Every day

BOX TWO
Tuesdays
and
Thursdays

BOX THREE Once per week

Step 1. Create flashcards. Write a concept, definition, or question on the front, and have one card per idea.

Step 2. Write the meaning or answer as well as how it can be applied to a situation on the back of the card.

Step 3. Take each flashcard out one by one and test yourself.

Library and Learning Services

Study Development



Library &

Step 4. Begin by placing all flashcards in Box 1; if you answer the question or recall the contents of each card correctly, move the flashcard to Box 2, where you will test yourself twice per week. When testing yourself with flashcards in Box 2, again, if you answer the question or remember the contents, place the cards into Box 3, where you will test yourself once per week.

Step 5. Once you have flashcards in boxes 1, 2, and 3, you will test yourself in accordance with the box's pattern, either every day, twice per week or once per week. When using this revision method, if you find you can't recall the content on a flashcard, then move the card that was originally in Box 3 back into Box 1, and if the card was from Box 2 and you can't remember the information, move it back into Box 1.

7. Revision poster

This method helps you to consolidate knowledge about a topic and show key information visually.

Step 1. Take a large piece of paper or create an A3 electronic document.

Step 2. Note any key ideas, theories, information, facts, theorists, quotations, terminology, keywords, examples, or case studies about a topic. You can do this by using text, pictures, graphs, tables, formulas, drawings, etc. You can create a revision poster to chart or show a timeline of historical or contemporary developments about a topic or a creative or scientific process.

Step 3. Place your revision poster somewhere where you will see it daily and go through the information on a regular basis.

See our Revision Poster worksheet template and create your own!

8. Mind Maps

can also help you to memorise information through visual cues, images, text and connect ideas to develop your understanding of a topic. <u>Access Coggle here, a free online mind map resource.</u>

Library and Learning Services

Study Development





Sources/further reading:

- Brown, Derren. (2020). *Memory Hack: Method of Loci.* [Online] Big Think. Available at: YouTube video: Memory Hack: Method of Loci [Accessed 10 February 2023].
- Burns, Tom. (2021). Essential Study Skills. The Complete Guide to University Success. [Online]. Sage Publishing. Available at: Essential Study Skills: The Complete Guide to University Success [Accessed 13 March 2023].
- Cottrell, Stella. (2012). The Exam Skills Handbook: Achieving Peak Performance. 2nd edn. Basingstoke: Palgrave Macmillan.
- Genova, Lisa. (2021). 4 Ways to Hack Your Memory. [Online] Big Think. Available at: YouTube video: 4 Ways to Hack Your Memory [Accessed 16 May 2023].
- Kennedy, John. (2005). Study Skills: Maximise Your Time to Pass Exams. Taunton: Studymates.
- Unknown. (2015). What is the Forgetting Curve? [Online] FutureLearn. Available at: What is the Forgetting Curve?. [Accessed 13 March 2023].
- Unknown. (2022). A Short & Sweet Guide to the Leitner System. [Online] GoodNotes Blog. Available at:
 - A Short & Sweet Guide to the Leitner System [Accessed 10 February 2023].

Support: Study Development offers workshops, short courses, 1 to 1 and small group tutorials.

- Book a tutorial or join a workshop on the <u>Study Development tutorial and workshop webpage</u> or search 'YSJ study development tutorials.'
- Access our Study Success resources on the Study Success webpage or search 'YSJ study success.'

Library and Learning Services

Study Development

