



Memory & Study Skills: Mnemonic Devices

PEG SYSTEMS

- Concepts are “pegged” to numbers or letters.
- Useful for learning things in a set order.

Rhyming Scheme

- | | |
|---------------|--------------------|
| 1. is a bun. | 6. is some bricks. |
| 2. is a shoe. | 7. is heaven. |
| 3. is a tree. | 8. is a gate. |
| 4. is a door. | 9. is a line. |
| 5. is a hive. | 10. is a hen. |

Applying this scheme to a chronological list of five Greek philosophers, you have:

1. Parmenides – a BUN topped with PARMESan cheese.
2. Heraclitus – a SHOE worn by HERACles (Greek Hercules).
3. Empedocles – a TREE from which the M-shaped McDonalds arches hang, hooking up a bike by is PEDal.
4. Democritus – the voting form with DEMOCRatic candidates selected, nailed to a DOOR.
5. Protagoras – a bee HIVE being GORed by an atomic PROTOn.

- example based on www.mindtools.com

Number Shape Scheme

- | | |
|----------------|-----------------------------------|
| 1. Spear | 6. Golf club |
| 2. Swan’s neck | 7. Hockey stick |
| 3. Pitchfork | 8. Snowman |
| 4. Flag | 9. Balloon on a string |
| 5. Sickle | 10. Eye with eyebrow (rotate 90°) |

Applying this scheme to a list of more recent philosophers, you have:

1. Spinoza – a skeleton with a SPEAR for a SPINE.
2. Locke – a SWAN picking a LOCK with its beak.
3. Hume – a HUMAn figure composed entirely of pitchforks.
4. Kant – a CAN of Spam being hacked open with a sickle.
5. Rousseau – a kangaROO SEWing with a golf club for a needle.

- example based on www.mindtools.com

FIRST LETTER SCHEMES

- ROYGBIV for the colors of the spectrum.
- “Mary’s Violet Eyes Made John Stay Up Nights Permanently” for the planets in our solar system.

NARRATIVES

- Stories that link key concepts words in order.



What a brain!

Memory & Study Skills Workshop





mnemonic - (ni-MON-ik)

- A strategy or device to aid memory.
- More effective if
 - Interesting
 - Exaggerated
 - Fun and vivid
 - Involve the senses
 - Sight, sound, taste, touch, smell





Meeting someone new

1. Repeat their name.

“Hi, Allehandra, I’m Stephen Lennox.”

2. Use their name within a minute.

“Allehandra, are you in the counseling program?”

3. Associate their name with an image.

- Image associated with a unique personal feature.





Memory Basics

- Echoic memory (1-2 seconds)
 - Visual or auditory.
 - Requires rehearsal to move to STM.
- Short term memory (~ 1 minute)
 - Capacity: about 7 “bits” of info.
 - Requires encoding to move to LTM.
- Long term memory
 - Usually requires rehearsal to remain “decodable.”





STUDY TIP

Echoic memory is so short that it's common to miss a new piece of info in a lecture while writing down previous info.

1. Do assigned reading *before class* to reduce the amount of new info.
2. Ask questions as soon as you miss info.
3. Use a small recorder.
 - Review notes during commute time.
 - Note time codes of info to be added to notes.





toaster	yellow	milk
status	asteroid	blue
grape	oxygen	mascot
crocodile	sunburn	cherry





We tend to remember things...

- Studied first (primacy effect).
- Studied last (recency effect).
- Studied more actively (depth processing).





STUDY TIP

Study in spurts with a short break between (like 40 minutes with a 5 minute break).

- Uses primacy and recency effects.
- Recite what you've learned before and after each break.





STUDY TIP

Utilize depth processing as you study.

- Relate new info to your own experience.
- Fit new info into old info.
- Visualize what you are studying.
- Summarize key points.
- Turn key points into mnemonics.





Practice

- **Total Time Hypothesis**
Amount learned increases with time spent studying.
- **Spacing Effect**
Study spread over time is more effective than “cramming.”
- **Expanding Retrieval Practice**
Increased delay times between practices results in maximized learning.





Other Mnemonic Systems

Linking

- Connect image for each concept to the next.
- Forget first image? Link to your nose!





Other Mnemonic Systems

Peg systems

- Used to remember things in order.
- Concept image is linked to a number or letter of the alphabet.
- Rhyming scheme: 1 is a bun...
- Number shape scheme: 1 is a spear...





Other Mnemonic Systems

Keyword imagery

- Excellent for learning foreign languages.
- Foreign vocabulary word is linked to an image of its English sound-alike.
- Rodilla (Spanish for *knee*) sounds like *rodeo*.
- Image: rodeo cowboy riding bull with his knees in the air.





Other Mnemonic Systems

Method of Loci

- (Loci is Latin for *places*.)
 - Visualize the places you see on a familiar trip (from the Ordinary to the Library, e.g.).
 - Link a concept image with each location.





Memory is also enhanced by...

- A “can-do” attitude.
- Good physical and mental health.
- Using a variety of strategies.





STUDY TIP

■ If you are stressed, or the assignment looms larger in your mind than God, worship before you study! Remember that He is delighted in your discovery and study, watching to see how you process what you read. (from Veronica Karaman, *Behold Your Teacher*)





STUDY TIP

Use a variety of study techniques.

- Flashcards
- Note review
- Outline reading
- Study groups





Changing Focus of Graduate Study

Undergraduate – learning facts

- Survey of history, theory, and principles of the discipline.

Master's Level – applying facts and principles

- Demonstrate ability to understand and apply principles.
- Begin general familiarity with experts and their work.

Doctoral Level – generating new information

- Identify what experts are missing.
- Study it, and *become* the expert (publish).





How can I know what to study most?

- Keep up with the reading.
- Ask: What do I think is important?
- Note professor's emphasis in lectures.
- Share your sense of what's important with the professor and ask for a reaction.





ESSAY PREPARATION TIP

Write out essay questions you'd pose if you were the professor. Outline good essay content for each. Study your outlines.





ESSAY TEST TIP

Do a “brain dump” before starting an essay.

- List mnemonics related to essay topic.
- List all key details.
- Then outline your essay and begin writing.





ESSAY WRITING TIP

Essays should show

- Comprehension of the issues.
- Logical organization of thoughts.
- Clear articulation of your point of view.
- Evidence to support your point of view.





Read Wisely

- Learn how well-written material is organized.
- Ask: What do I want to learn?
- Move on when you've learned it!
- Read it as if you had to teach it.
- Highlight *after* you've read. Mark text to highlight with a dot while reading.
- Use SQR3.





SQR3

- Survey – preview quickly for general content.
- Question – pose questions author may address.
- Read – looking for answers to your questions.
- Recite the main points.
- Review, using expanding retrieval practice.
- SQR4 – wRite out what you've learned.





Expanding Retrieval Practice Plan

Review:

- Immediately after reading.
- Before bedtime.
- 24 hours later.
- A week later.
- A month later.
- Note the next review time in your planner or PDA.
- Post a review chart on the material itself.





Expanded Retrieval Chart

- On sticky note.
- On material.

<input checked="" type="checkbox"/>	immediate
<input checked="" type="checkbox"/>	end of day
<input type="checkbox"/>	next day
<input type="checkbox"/>	1 week
<input type="checkbox"/>	1 month





THESIS WRITING TIP

Key thoughts from seminal books, with page references, can be stored on 3x5 cards, or in a notebook or PDA for frequent review. When it comes time to write, you'll know where to look to cite those thoughts.





Time Tips

- Get a planner. Use it.
- Prioritize your “to do” list.
- Make a quiet place to study.
- Know when to quit (fight perfectionism).
- Know when to ask for help.
- Be organized.
- Maintain a healthy diet and exercise.



From Peter Marttala, iamnext.com



Time Tips (continued)

- Subdivide big projects.
- Plan backwards from due-dates.
- Plan “cushion” time.
- Start early.
- Spend most of your study time on what you *don't* know.





NOTE-TAKING TIP

Mapping is a great way to visually represent the main ideas of an issue. It's also a great technique for taking notes with a lecturer who uses a non-linear delivery style.



Memory & Study Skills

Please give us your [feedback](#).