Factors that Influence Memory

Psychology 390
Psychology of Learning
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Overlearning
- Continue to study something after you can recall it perfectly.

Organization
- If you can organize the material, you can recall it better.
- Lots of organization strategies.

Clustering
- You will recall items better if you can recognize there are two or more types of things in a list.

Clustering
- North: Pig
- Cardinal: Cat
- South: Horse
- Robin: Dog
- East: Sheep
- Wren: Birds
- West: Cow
- Sparrow: Fish
Verbal Mnemonic Techniques

- Here you make your own organization.
- Many different techniques.

Acrostics

- Acrostic are phrases in which the first letter of each word functions as a cue to help you recall information.

Acrostics

- On Olfactory
- Old Optic
- Olympus Oculomotor
- Towering Trochlear
- Tops Trigeminal
- A Abducens
- Fin Facial
- And Auditory (Vestibulocochlear)
- German Glossopharyngeal
- Vented Vagus
- Some Spinal Accessory
- Hops Hypoglossal

Acronyms

- This is a word formed out of the first letters of a series of words.
- ROY G BIV
- Are the colors in the visual spectrum.

Rhymes

- I before E except after C.
Method of Loci

- Involves taking an imaginary walk along a familiar path where the images to be recalled are associated with locations along the path.

Walk around the house and associate words with the location in the house.

Pegword

- Relies on a list of integers
  - 1
  - 2
  - 3
  - 4
- Attach a pegword to each of the numbers with which it rhymes
  - Bun
  - Shoe
  - Tree
  - Door

Then give a list of works to recall. Associate the first word of the list (Bee) with the pegword (Bun).

Try to visualize the bee eating a bun. When recalling the word, make the associations.

The more outrageous the association, the better the recall.

Third Factor that Influences Memory

The Order in Which you Learn Things.

- Give a list of words in a free recall task. You will have better recall for words at the beginning and end of the list but not in the middle.
  - Called the Serial Position Effect.

Recall at the beginning is called the Primacy Effect.

Recall at the end called the Recency Effect.

Occurs because you can generally only recall 7 plus or minus 2 items in working (short term) memory.
The Order in Which you Learn Things.

Von Resterhoff Effect
- When a word in the middle of a list of words is surprising, funny, or dirty, you will usually recall that word and some around it.

Von Resterhoff Effect
- Pencil
- Wallet
- Bookcase
- Pen
- Chair
- Automobile
- Hanger
- Elephant
- Intercourse
- Suitcase
- Hat
- Airplane
- Bathroom
- Clouds
- Briefcase
- Stove
- Paper

Proactive Interference or Inhibition
- Past learning will interfere with your ability to recall new material.
  - Learn list a,
  - Then learn list b,
  - Finally, recall B,
- A will interfere with your ability to recall B.

Proactive Interference or Inhibition
- Learn Sociology
  Then Learn Psychology
  Sociology will interfere with your recall of Psychology
  PABB
Proactive Interference or Inhibition

NOTE: Sometimes past learning will help you because you organize it better.

Retroactive Interference or Inhibition

- Is unlike proactive interference.
- Here, learning new material will interfere with your ability to recall old material.
  - Learn List C
  - Then List D
  - Recall C
  - D will interfere with your ability to recall C.

Retroactive Interference or Inhibition

Learn Psychology
Learn Sociology
Sociology will interfere with your ability to recall Psychology.

Retroactive Interference or Inhibition

Learn Psychology
Read the Argonot,
The Argonot will interfere with your ability to recall Psychology.

RCDC

Retroactive Interference or Inhibition

Do not take similar courses in the same semester.
Take things that are different and don’t have a lot of overlap. You will recall them better.
Psychology, Math, Biology, CS

Active Participation

- You recall more information the more active you are during the Learning.
Active Participation

- Quizzing yourself while reading.
- Determining how the material relates to other sections.
- Using study guides.
- Outlining book chapters or notes is better than highlighting or reading.

Similarity of the Learning and Recall Condition

- The more similar the recall condition is to the learning condition, the better the recall.

Ideal place to study for an exams.

- The room where you will take the exam.

State Dependent Learning

- It is best to recall information in the same drug state as you do the learning.

If you smoke, smoke while taking the exam.

If you drink coke or coffee while studying, drink coke or coffee while taking the exam.

Don’t study while not drinking coffee but take the exam on coffee.
Test Anxiety

- While studying, you tend to be relaxed,
- but when taking the exam you tend to get
tense due to the stress.
- When you tense, your Blood Pressure increases, different hormones are secreted, etc.
- Result - mind goes blank.
- After the exam, you relax and can recall the information again.

Advice:

- Take a test anxiety workshop.
- Learn to stay relaxed when taking the exam.

Spread Practice and Learning is Better Than Massed Practice. (Cramming)

- It's better to spread out studying over a period of time instead of doing it all at once.

Studying three days for one hour is better than three hours all at once.
That is, Don't Cram

Why?

- Recall the Serial Position Curve.
- Can generally only recall 7 plus or minus 2 items.
- If you are cramming, recall the Recency effect.