Memory

Objective’s for Today’s Class:
- Encoding memories
- Storing memories
- Retrieving memories

Memory is a constructive process through which thinking and memory are flexible and capable of constant change...this can

focuses on how information is cognitively organized
The Study of Memory

- How does information get into memory?
- __________________________

- How is information maintained in memory?
- __________________________

- How is information pulled back out of memory?
- __________________________

___________________________
so the brain can process it.
- This is the first step in the flow of memory

Learners must **encode** information to store it.
- __________________________

___________________________
___________________________

What did you say?

Some information gets into memory virtually automatically, whereas encoding other information takes effort.
- These include paying attention, processing deeply, elaborating, and using mental imagery.

___________________________
___________________________

___________________________
Attention

* Divided attention involves concentrating on more than one activity at the same time.

Such research indicates that trying to listen to a lecture in class while simultaneously texting or playing a game on your cell phone is likely to impede your ability to pay adequate attention to the lecture (Glenn, 2010).

Focused Attention

* is the ability to maintain attention to a selected stimulus for a prolonged period of time.

  For example, paying close attention to your notes while studying for an exam is a good application of sustained attention.
Another factor that influences memory is the degree to which we get involved with the information.

The term ____________________________ refers to a continuum from shallow to intermediate to deep, with deeper processing producing better memory.

It suggests that memory relies on how ____________________________

By adding ____________________________

or relating it to things we already know, it can be stored for a lifetime.

Parallel Distributed Processing (PDP)

The brain performs multiple, parallel operations all at once,
Information Processing Model suggests that memory is very similar to a computer

Limitations of the information processing model

- Memories are described as literal, “hard” data stored on a computer disk or hard drive.
- Also, computers process one piece of data at a time while human memory can

STORAGE:

Maintaining Information in Memory

~ Three-Stage Memory Model
Storage

* Storage involves maintaining the information available in memory

There are 3 Separate Memory Stores

* Sensory Memory performs the initial encoding of sensory input

The sensory memory recodes a complete memory of the image, but it fades too rapidly for people to “read”

People have a special capacity for briefly retaining relatively large amounts of information

This capacity is called the Sensory Memory
Sensory Memory

- Preserves information in its original sensory form for a brief time – usually__________
  - Iconic Memory is a__________of the original visual stimulus
    - Capacity: 4 ± 2 bits of info
  - Echoic Memory is the__________memory
    - Capacity: about 6 bits of info

Working memory is where active thinking occurs.

Figure out the meaning of what has just been said to your in a conversation.

The working memory has many limitations

- Short-term memory is a limited-capacity
  - Capacity:
    - “The magic number” (George Miller)
    - Humans have the ability to__________
People can group information in ways to expand their short-term memory capacity called "Chunking" allows for easier ________________

How long can this information stay in STM?
Memories disappear unless:
- They are really meaningful so they get stored quickly into long-term memory

Rehearsal:
- The __________________________
  __________________________________________
  __________________________________________

Working Memory
- Working memory is a kind of mental workbench on which the brain manipulates and assembles information to help us understand, make decisions, and solve problems.
  - It is a three-part system that allows us to hold information temporarily as we perform cognitive tasks.
What do you remember?

Long Term Memory
An unlimited capacity store that can hold information over length periods of time
- Capacity: ____________________________  
- ____________________________  
- ____________________________  
- ____________________________  
- ____________________________  
- Tip of the tongue phenomenon (temporarily inaccessible)

Next class
How Do We Get Information Out of Memory?

RETRIEVAL  
Ch.7-Memory