

Memory

Objective's for Today's Class:

- Encoding memories
- Storing memories
- Retrieving memories

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Memory is a

_____ through which we actively organize and shape information.

Thinking and memory are flexible and capable of constant change..this _____

2

_____ model focuses on how information is cognitively _____:

- Encoding
- Storage
- Retrieval

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The Study of Memory

- How does information get into memory?

- How is information maintained in memory?

- How is information pulled back out of memory?

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Encoding

- Encoding* is the organizing of sensory information so the brain can process it.
 - This is the _____
- Learners must encode information to store it.

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What did you say?

- Encoding _____
- _____ during encoding hurts performance on memory tasks, especially during retrieval.

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Information Processing Model suggests that memory is very similar to a computer



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Limitations of the information processing model

❏ Memories are described as literal, “hard” data stored on a computer disk or hard drive.

❏ But human _____

❏ Also, computers process one piece of data at a time, while human memory can _____

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Parallel Distributed Processing (PDP)

The brain performs multiple, *parallel* operations all at once, allowing

_____ (distributed) throughout a network of processing units



It suggests that memory relies on
how

information.

By adding meaning, developing organizations
and associations, or relating it to things we
already know, it can be

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STORAGE:

Information in Memory

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Storage

☐ Storage involves maintaining the information
available in memory

- Whenever people have _____
_____ they no longer sense, memory is involved

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It's a memory when...

- Example- if you look up a phone number, go to the telephone, and dial the number then memory is involved- even if for only seconds.

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There are 3 Separate

_____ performs the initial encoding of sensory information for a brief time, usually only a _____

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

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

This capacity is called the Sensory Memory

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Sensory Memory

- ▣ Preserves information in its original sensory form
- ▣ Iconic Memory is a visual icon of the original visual stimulus
 - Capacity: _____
- ▣ Echoic Memory is the auditory sensory memory
 - Capacity: _____

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_____ is where active thinking
occurs.

- Designing new strategies
- Computing solutions to math problems

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The working memory has many limitations

- ▣ Short-term (working) memory is a limited-capacity store that can maintain unrehearsed information up to 30 seconds
- ▣ Capacity: _____ (George Miller)
 - Humans have the ability to retain _____

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☞ People can group information in ways to

called “Chunking.”

- “Chunking” allows for easier encoding

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 process of _____ or thinking about information

Long Term Memory

☞ _____

- Capacity: Unlimited
- Duration: Relatively permanent

☞ Information can be stored in separate units and some information can be retrieved without retrieving others

A robin is a type of _____.

☐ _____ consists of memories of general principles, facts, rules and ideas.

☐ Contains general knowledge that is _____.

☐ Example- Games or sports

Episodic Memory

☐ _____

- ☐ Memories for specific autobiographical events
 - Includes details of when and where the events happened
 - Help us construct a sense of self

Next class

How Do We Get Information Out of Memory?

RETRIEVAL

Ch.7-Memory
