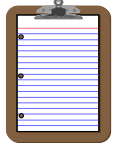


Overview of Ch 7: Cognitive Views of Learning



- Information Processing
- 3 Memory Stores
- 3 Types of Memory
- Metacognition
- Memory Strategies

1

Information Processing Model

- Uses computer analogy

- Executive control
- Encoding: transforming info into a form that can be saved
- Storage: Sensory, short term & long term memory
- Retrieval: algorithmic retrieval vs. heuristic retrieval



2

Sensory Memory



- The five senses
- Capacity: Large
- Duration: Short (few seconds)
- Info lost unless attended to

3

Short-term (Working) Memory

- Capacity: limited (7 chunks +or - 2)
- Duration: limited (20 seconds).
- Articulatory loop for rehearsal 1.5 sec.
- Info transferred to LTM through maintenance rehearsal & elaborative rehearsal
- Primacy & recency effects
- Effect of expertise

4

Long Term Memory

- Unlimited capacity
- Unlimited duration
- Recognition (vs. Recall): easiest memory task
- Retrieval may be troublesome
 - Interference: retroactive & proactive
 - Semantic networks
 - Reconstructive



5

Types of Memories

•**Episodic:** memories of personal experiences.



•**Semantic:** General knowledge. Propositions, Images, Schema.



•**Procedural:** memory for skills. Least subject to decay.



6

Metacognitive Knowledge

- Awareness of your own thinking processes
 - Declarative knowledge: “what”
 - Procedural knowledge: “how to”
 - Conditional knowledge: “when and why”
- Planning
- Monitoring
- Evaluation

7

Memory Strategies

- Maintain Attention
- Depth of Processing: Elaboration, Organization, examples, analogies
- Chunking
- Context
- Mnemonics: ex. Method of loci, Forming acronyms, imagery
- Train Metamemory skills



8

Memory Strategies Cont'd

- Memory Aids
 - External
 - Internal: Better in long run
- No cramming → reduced retroactive interference
- Lots of practice → reduced proactive interference
- No stress



9
