

# LESSON 7

## REMEMBERING AND FORGETTING

### SUMMARY

It is only through the capacity of memory that we are able to relate to different events, experiences, conditions, people and objects. Also, we use the understanding thus developed in different contexts and on different occasions. Thus, memory makes it possible to operate beyond the constraints of time and place. Memory establishes links across diverse experiences.

### Significance of Memory

Memory is a mental process and system which receives information from - external or internal - stimuli, retains it and makes it available on future occasions.

### Features of human memory

It provides continuity to our experiences across different time points.

It can retain verbal information, visual experiences, tactile impressions, feelings of pain and joy, motor skills, events, activities and so on.

Retrieval of information can be exactly in the same way or in a different form.

The reception of new information depends upon our previous memories and experiences.

It does not retain all information presented because there is great

deal of selectivity in receiving the information.

It can retain extremely large amounts of information.

It is an active system. It works on the information received.

### Key Aspects of Memory

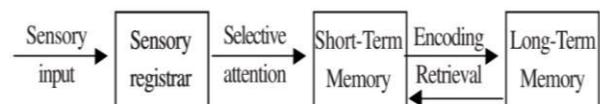
Memory is a perceptually active mental system. It receives, encodes, modifies, retains and retrieves information.

Encoding refers to the translation of incoming stimulus into a unique neural code

Storage is the retention of the material encoded over a period of time

Retrieval is the recovery of the stored or retained information at a later occasion

### The general Model of human memory system

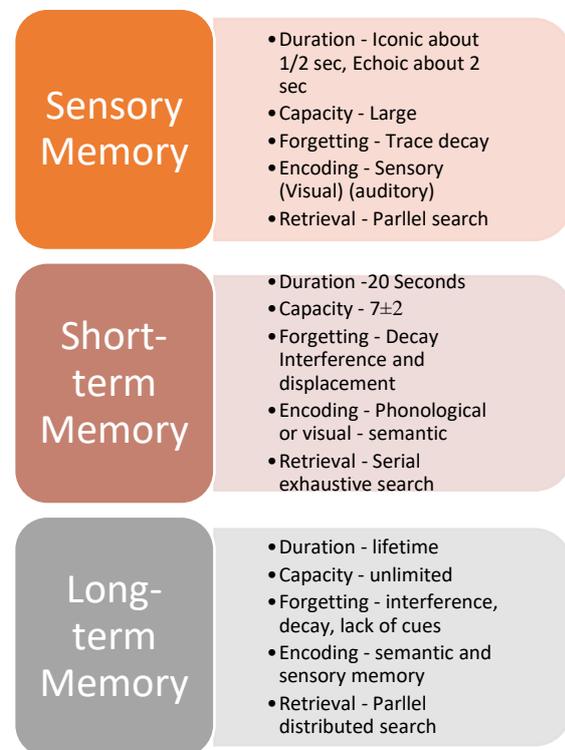


What we are able to memorize depends to a large extent on what happens to the information once it reaches the sensory memory. We are exposed to a lot of stimulation. The process of attention limits the input of information which we receive from the environment.

## Short-term memory (STM) and Long-term memory (LTM)

The three subsystems – Sensory memory, STM and LTM are interrelated.

The nature and functioning of STM and LTM are different. The distinction may be made in terms of capacity, duration, type of information retained, and the causes of forgetting.



**Eyewitness Memory** - It has been found that we always actively process our memories and try to fit them in the schemata and beliefs that we hold about the situation. It is only when we look at the overall meaning and context of a memory that we can really judge about the accuracy of accounts.

**Autobiographical memory** - This kind of memory refers to people's

memory for their own personal experiences. The studies indicate that autobiographical memory is organized at three different levels – **lifetime period, general events** and **event-specific knowledge**.

**Measurement of retention** – two types of measures:

- i) **Explicit measures** – it requires that a person must remember some given information that is stored in memory. E.g. – Recall and Recognition.
- ii) **Implicit measures** - in this a person has to perform some tasks in which no deliberate or intentional effort is made to retrieve from memory. E.g. – word completion, priming tasks.

## Causes of Forgetting

(i) **Decay of memory traces** - It is a common experience that memories of many events and experiences become “dim” over time.

(ii) **Interference** - the blocking of learning or of memory retrieval by the learning or remembering of other conflicting material. It is of two types:

Retroactive	Proactive
<ul style="list-style-type: none"> <li>• occurs, when the current information interferes with what has been retained earlier</li> </ul>	<ul style="list-style-type: none"> <li>• earlier information in the memory interferes with the current information</li> </ul>

(iii) **Motivation** - We may exclude memories or push them out of consciousness if we do not like them. Freud called this process **repression**. Also, there is a strong tendency to remember incomplete tasks more than completed tasks. This has been termed as **Zeigarnik effect**.

(iv) **Retrieval failure** - Absence or non-availability of retrieval cues at the time of recall. The changes in context associated with physical and mental states from the occasion of learning (encoding) to recall (retrieval) often result in poor retention scores.

### Memory as a Constructive Process

The reproduction of memories is found to be constructive in nature. The constructive nature of memory is evident when we recall some event. If you compare recollections of the story of a movie which you and your friends have seen, you will notice how differently people have constructed the same story. It seems that recall is always a combination of retrieval and reconstruction. The three main tendencies are sharpening, levelling and assimilation.

### Ways of Enhancing Memory

The study of memory aids and related techniques is called **mnemonics**. Some of the techniques used in improving memory are listed below:

1. **Organization** - While preparing for learning a learner needs to organize the material in some form. Such an organization may help by creating a natural context and provide relevant cues while retrieving the learned material.
2. **Concentration** - focusing attention on the material while processing we can increase the probability of storage and recall.
3. **Method of Loci** - this technique uses associations with place or task. The visualization of the same provides cues for recalling the task.
4. **Recoding** - While dealing with non-meaningful material one may recode the items to be remembered in a more meaningful manner. Recoding may take many forms. For example, people may use the first letter of all the items and make a sentence. This kind of narrative structure works as a cue.

### Do you know?

The stage model of memory (Sensory memory, STM, LTM) was given by **Richard Atkinson** and **Richard Shiffrin** in 1968.

**Hermann Ebbinghaus** pioneered the experimental study of memory and gave the Forgetting curve also.

### **Evaluate yourself**

1. What are the factors that cause forgetting?
2. What methods can be used to measure memory?
3. What are mnemonics? Give at least three examples.

### **Extend Your Horizon**

To learn more about memory in detail, visit:

[https://www.researchgate.net/publication/333701129\\_History\\_of\\_Cognitive\\_Psychological\\_Memory\\_Research](https://www.researchgate.net/publication/333701129_History_of_Cognitive_Psychological_Memory_Research)