

Top Ten 2020 Skills Project

SKILL 7 – JUDGEMENT AND DECISION MAKING
Human Memory



7. Judgment and Decision Making

SKILL 7 – Judgement and Decision Making

Human Memory

“The advantage of a bad memory is that one enjoys several times the same good things for the first time.”

Friedrich Nietzsche



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Human Memory

Overall objective:

- Understand how Human Memory operates.**

Specific objectives:

- Understand the Memorisation Process.**
- Understand the Memory Mechanisms.**
- Acquire Memorisation Techniques.**



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Learning method

- You have to read all the slides carefully to understand the concepts addressed in the training pill.
- In the end, you have to complete an exercise in order to test your knowledge.



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Human Memory

Contents

- Memory: concept**
- Memorisation Process**
- Memory Mechanisms**
 - Reception
 - Encoding
 - Consolidation
 - Retrieval
 - Working Memory
- Memorisation Techniques**
 - Mnemonics
 - Repetition
 - The Storytelling Technique
 - Mind Maps
 - The Loci Method – The Memory Palace
 - Lifestyle improvements



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Human Memory

Memory is one of the most important functions of the human being.

Performs a **determinant role** in the **interaction with the environment, socialisation, personality and behaviour building** and in **performance in general**⁽¹⁾.

All that we see, hear, smell and feel is transformed and integrated in patterns more or less complex **that could be recalled later**⁽¹⁾.



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Memory is the **capability** that human beings have through which they **store and retain the knowledge learnt**, using specialized procedures⁽²⁾.

Those procedures could be the **establishment of relations between the knowledge already possessed and new that is being learnt**, so we can recall and use them when we have the need in diverse situations⁽²⁾.



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The Silent Performance of Memory⁽¹⁾

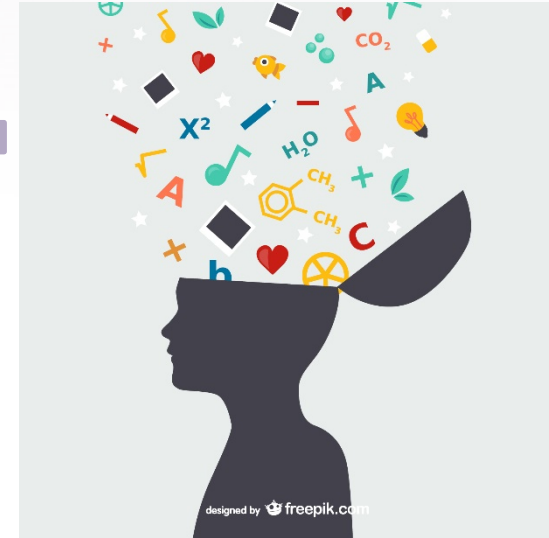
Reception

Encoding

Consolidation

Retrieval

The **creation of memories** assume **diverse phases** that **occur in a sequential way**.



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Reception₍₁₎



**Enter
information**



**Gather sensory
stimuli.**

**Perceptions sent to the
brain, after being received
through the receptors of the
sense organs.**



What is going to be transformed
into memories, comes from the
various senses.



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Encoding⁽¹⁾



The information received is going to be encoded.

Structure and process the information (in different formats).

In the human brain, **images, melodies, smells, sensations or knowledge are organised and distributed through different primary and secondary brain areas.**



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Consolidation⁽¹⁾

Storage

After the encoding, the information is stored.

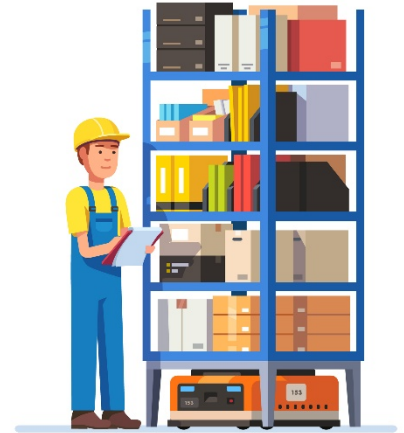
The memories are archived automatically in the different brain areas by themes.



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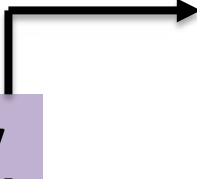
Retrieval⁽¹⁾



Recalling spontaneously or with help.



Working Memory



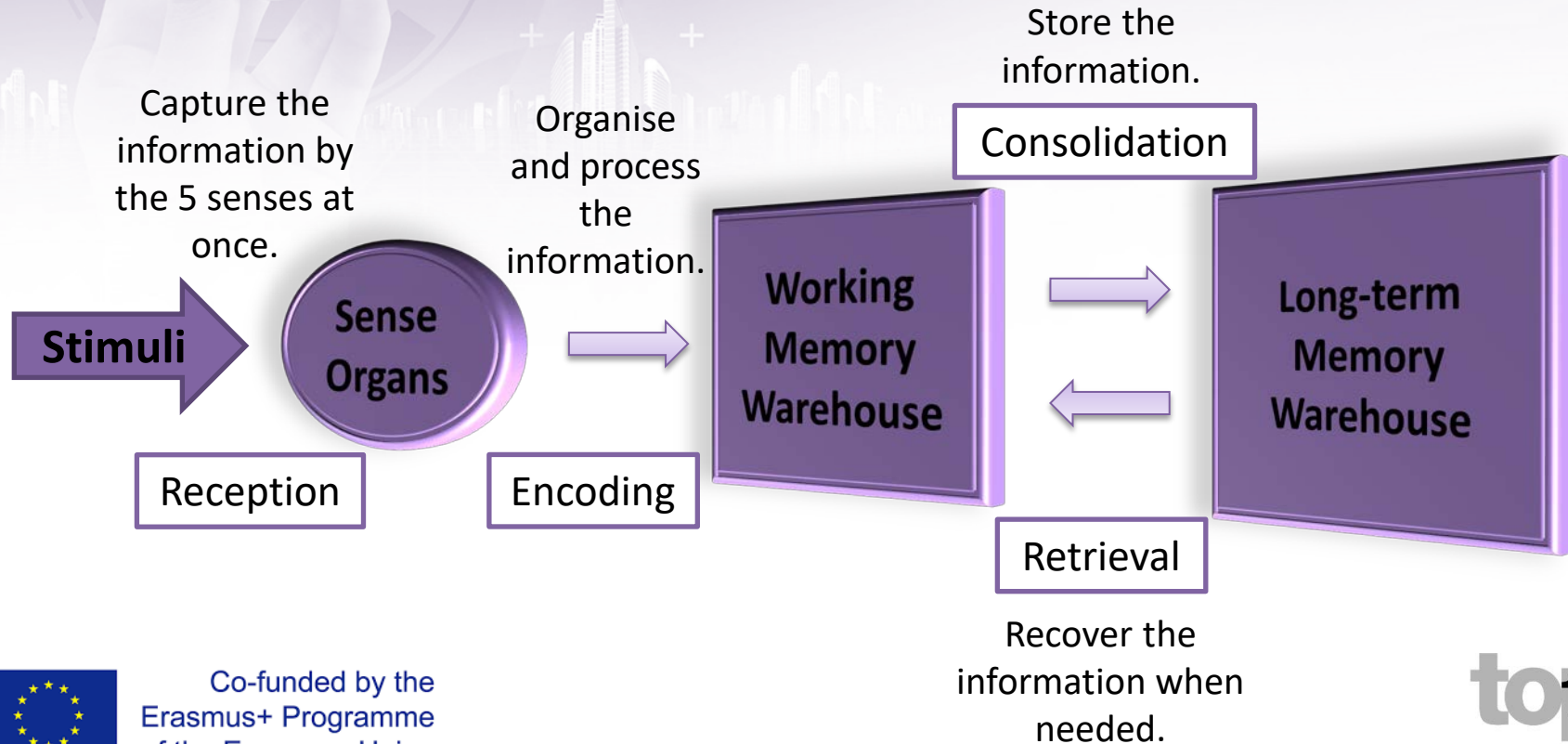
It is **capable of retaining and manipulating information during certain periods of time, while other mental operations occur⁽¹⁾.**

Allows to **gather in the system in the same moment in time the past, present and future.**



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In order to **strengthen your memory**, you have to **challenge your brain⁽⁵⁾**, through:



Learning new things.

Staying mentally active.

Can increase the physical size of the brain⁽⁵⁾.



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Memorisation Techniques

Mnemonics_(3,4)

→ Association
of ideas.



Creation of music and/or rhymes.

Acronyms: use the first letters from a group of words that you need to memorise and create appealing new words.

Acrostic: create unforgettable sentences with words that start with the same letter as the items that you need to memorise.



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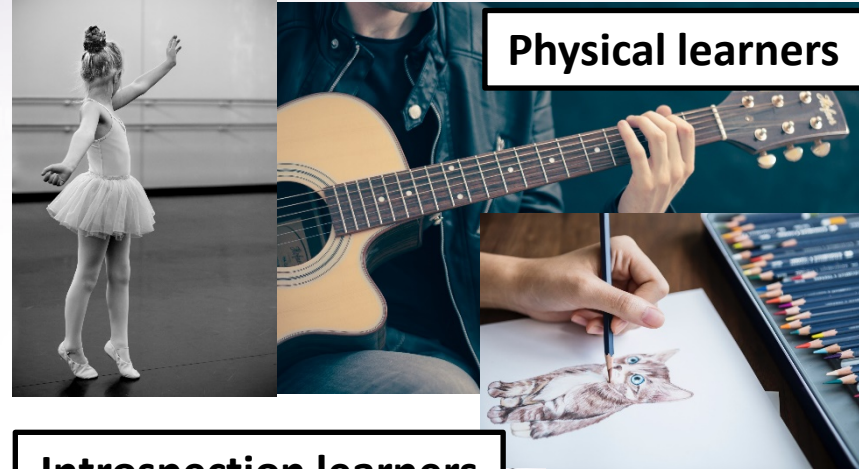
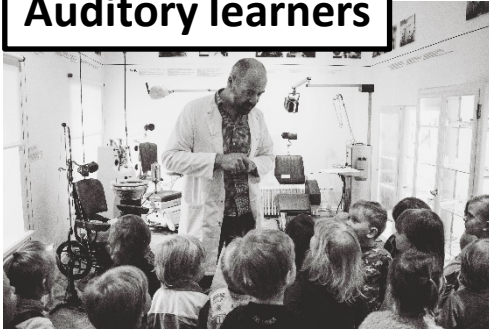
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Memorisation Techniques

Repetition⁽³⁾

→ Memorise/learn through constant reading/listening of the same information or constant repetition of specific actions.

Auditory learners



Physical learners

Introspection learners



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Memorisation Techniques

The Storytelling Technique^(4,6)



When you create a story, you comprise all its characteristics that allows you to recall it, as **colourful** and **with action images** and/or **captivating plots**.

When you include in your incredible story the **elements** that **need to be memorised** and **connect them in a sequence**, the brain follows the story more easily.

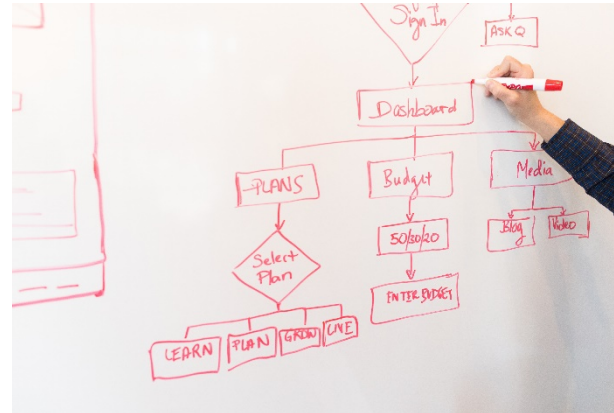
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Memorisation Techniques

Mind Maps⁽⁴⁾

Can be used to **memorise/learn new contents** or to **organise large quantities or deep information in a more direct way** (e.g. visual categories).

1. Begin by writing the central topic or idea that needs to be memorised on paper.
2. Link the main idea to sub-topics associated with each other.



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Memorisation Techniques

The Loci Method - The Memory Palace⁽⁴⁾

More efficient to **remember data that does not need to be processed, only recalled** (e.g. lists, birthdays, names, general knowledge information).

Association of items that need to be remembered to a specific image of a place that has a personal meaning (e.g. your room or a coffeehouse where you attend regularly).



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The Memory Palace⁽⁴⁾

In this technique, the items are **mentally distributed in the mental image in specific places that will help you recall them later.**

This customisation supports the categorisation of the items as appealing and important.



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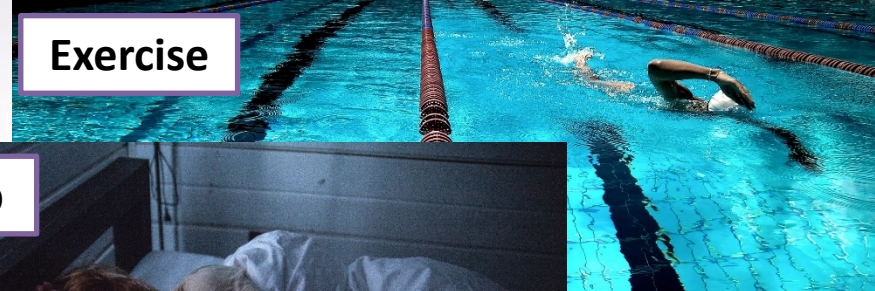
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Memorisation Techniques

Lifestyle improvements⁽⁴⁾

The improvement in the lifestyle has **positive long-term effects** that can make the previous described techniques more effective.

Exercise



Sleep



Healthy diet



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Exercises

Choose the most suitable answer:

1. The Human Memory:

- a. does not affect the personality and behaviour building;
- b. is the capability of humans to storage and retain the experiences and knowledge learnt;
- c. performs a small role in the general performance of the human beings.

2. The sequence in which the creation of memories occurs is:

- a. reception; retrieval; encoding; consolidation;
- b. reception; retrieval; consolidation; encoding;
- c. reception; encoding; consolidation; retrieval.



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Exercises

3. Please chose the definition for the following concepts by drawing a line to the correct meaning.

Retrieval	Gather sensory stimuli.
Encoding	Structure and process the information.
Reception	Recalling spontaneously or with help.
Consolidation	The memories are archived automatically in the different brain areas.



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Exercises

Choose the most suitable answer:

4. The Working Memory:

- a. is not capable of retaining and manipulating information while other mental operations occur;
- b. only retains information during certain periods of time;
- c. only allows to reunite, in the same moment, the past and the present.



Exercises

Choose the most suitable answer:

5. In the Mnemonics technique:

- you can create acronyms through the creation of unforgettable sentences with words that start with the same letter as the items you need to memorise;
- the ideas are disassociated, so you can easily remember them;
- you can create catchy tunes and/or rhymes to help you memorise.

6. The introspection learners memorise through:

- constant reading of the same information;
- constant listening of the same information;
- constant repetition of the same actions.



Exercises

Choose the most suitable answer:

7. In the Storytelling technique, you should create a story with:

- a. limited features, so you can easily remember it;
- b. black and white images and simple plots, so that does not become confusing;
- c. the items you need to memorise and link them in a sequence.

8. The Memory Palace technique:

- a. distributes mentally the elements in specific places in the mental image;
- b. associates the items to a place or image that has no personal meaning to the individual;
- c. is more efficient to remember data that needs to be processed to be recalled.



Exercises

Choose the most suitable answer:

9. In the Mind Maps technique:

- a. the objective is to highlight and disassociate the main idea of the other topics;
- b. you can only approach raw information;
- c. you can organise large quantities of information.

10. In relation to the lifestyle improvements, you should:

- a. not do physical exercise regularly, because it makes your memory even more tired;
- b. only sleep the recommended hours;
- c. sleep the necessary, eat a healthy diet and do some regular exercise.



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