LEARNING TO BE A *Student* BETTER

LESSON

Objectives

1

- The student should be able to recognize that learning occurs in a variety of settings beyond the classroom, such as home, school, churches, and offices.

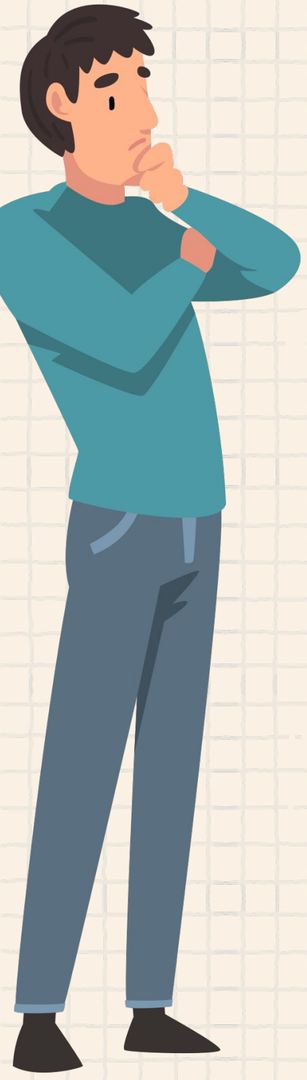
2

- The student should be able toUnderstand the basic structure of the brain and its key components, including the cerebrum, cerebellum, and brainstem.

3

- The student should be able to learn about the three stages of memory: encoding, storage, and retrieval, and their significance in the learning process.

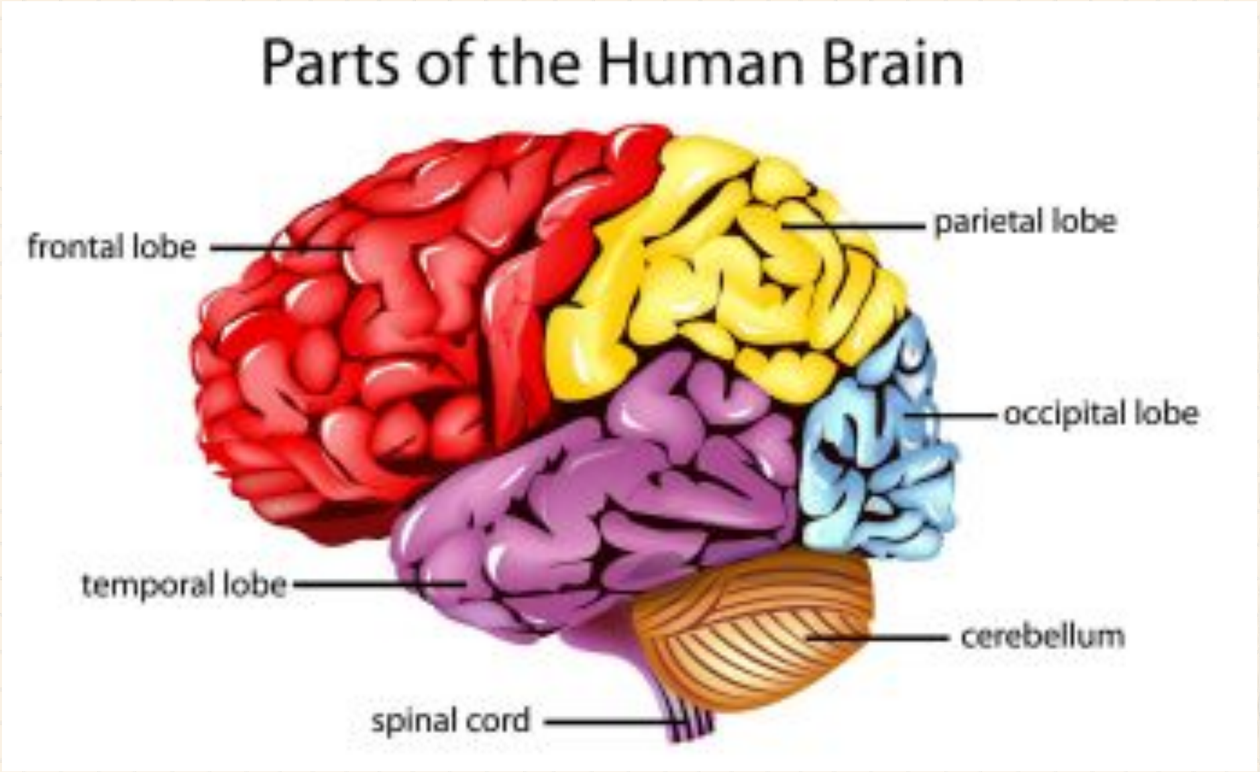
WHERE DOES LEARNING TRULY OCCUR?



Learning is a continuous process, we are constantly learning throughout our lives as we always gain new information - whether it is huge or little - it is still a piece of information we received every day. A lot of our learning occurs randomly in our life, from new experiences, gaining information and from our perceptions. Our home, school, churches, offices, and etc., can also be considered as placed where learning occurs.

THE HUMAN BRAIN

- There are three major parts of the brain: cerebrum, cerebellum, and brainstem. The cerebrum is divided into two halves: the right and left hemispheres. The cerebral hemispheres have distinct fissures, which divide the brain into lobes. Each hemisphere as 4 lobes: frontal, temporal, parietal, and occipital. The surface of the cerebrum is called the cortex. It has a folded appearance with hills and valleys. Deep structure of the brain: Hypothalamus, Pictuary Gland, Pineal Gland, Thalamus, Basal Ganglia, and Limbic System



NEUROPLASTICITY AND MEMORY

- “The human brain is a learning machine. Thanks to a phenomenon called neuroplasticity, the brain learns in a range of ways and many different circumstances, including in the classroom.” - Pankaj Sah say, Queensland Brain Institute, ND.

STAGES OF MEMORY

1. Encoding

Encoding is the initial stage of memory where information from the environment is transformed into a format that can be stored in the brain. This process involves converting sensory input (e.g., visual, auditory) into a neural code.

- **Visual Encoding -** Processing images and visual sensory information.
- **Acoustic Encoding -** Processing sounds, particularly the encoding of words and other auditory input.
- **Semantic Encoding** Processing the meaning of information, which is often the most effective form of encoding.

STAGES OF MEMORY

2. Storage

Once information is encoded, it must be stored in the brain for future use. Storage refers to the maintenance of information over time. There are different types of memory storage, characterized by their duration and capacity:

Sensory Memory: This is the shortest type of memory, lasting only a fraction of a second.
Iconic Memory: Visual sensory memory.
Echoic Memory: Auditory sensory memory.

Short-Term Memory (STM): Also known as working memory, it has a limited capacity (about 7±2 items) and duration (about 20-30 seconds). STM is used for temporarily holding and manipulating information.

STAGES OF MEMORY

2. Storage

Long-Term Memory (LTM): This type of memory has a seemingly unlimited capacity and can store information for extended periods, from hours to a lifetime.

Explicit (Declarative) Memory: Conscious memories, such as facts and events.

- Episodic Memory: Personal experiences and specific events.
- Semantic Memory: General knowledge and facts.

Implicit (Non-declarative) Memory: Unconscious memories, such as skills and conditioned responses.

- Procedural Memory: Skills and habits, such as riding a bike.
- Emotional Memory: Conditioned responses to emotional experiences

STAGES OF MEMORY

3. Retrieval

Retrieval is the process of accessing and bringing stored information into conscious awareness when needed.

Recall : Retrieving information without explicit cues, such as answering an essay question

Recognition : Identifying previously learned information when presented with it, such as multiple-choice questions.

Relearning : Learning information again, which often occurs faster than the initial learning due to prior exposure.

STAGES OF MEMORY

3. Retrieval

Retrieval can be influenced by the context in which the information was encoded (context-dependent memory) and the state of the individual (state-dependent memory). For instance, studying in the same environment where you will take a test can enhance recall due to context cues.

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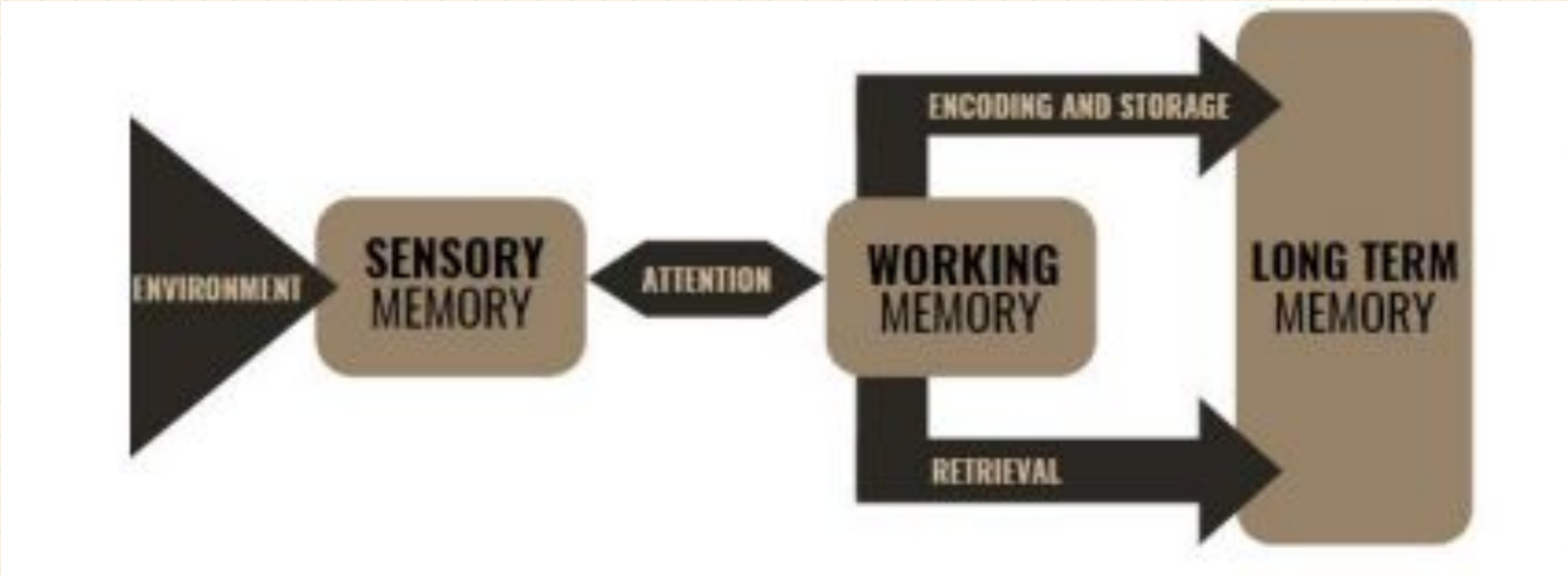
HOW DOES MEMORY WORK?



 Sensory Memory - Takes information from the environment through the human senses (sight, hearing, touch, smell, and taste) - stored for a very short time from 0.5 seconds to 4 seconds.

Working Memory - It is a system responsible for retaining and using memories. This is what you are conscious of, or what you are thinking at any given moment.

 Long Term Memory - We hold all our memories in here. The goal of learning is to move information here so we can use it later when we need it. It can be explicit and implicit. For memories to become long term memories, they need to be retrieved regularly. Unlike sensory and working memory, long term memory capacity is unlimited.

3A’ OF LEARNING PROCESS

1. Align - should have a thorough understanding of what they are expected to learn, how their behavior is expected to change, the results they are expected to achieve, and how these results contribute to the overall goals of organization.

2. Assimilate - will help you engage in applying what you already know in building relevant skills and knowledge that you decide to focus on and practice in the class.

3. Apply - involves using the skills and knowledge within your work environment that makes the learning stick, causing a behavior change that produces desired results.

Metacognition

Defines as “Thinking about how you think and learn”. Thinking about what we already know, what works best on how we learn, and accurately gauging if we’ve mastered the material. This is vital for mindset growth.

- Metacognition cycle - assess the task, evaluate strengths and weaknesses, plan the approach and reflect.

Self regulated learning

Self regulated learning refers to one’s ability to understand and control one’s learning environment. Self regulation abilities include goal setting, self-monitoring, self-instruction, and self-reinforcement. Self regulation should not be confused with a mental ability or anacademic performance skill. Instead, self-regulation is a self-directive process and set of behaviors whereby learners transform their mental abilities into skills and habits through a developmental process that emerges from guided practice and feedback.

Elements

- Cognition - the mental process involved in knowing, understanding and learning.
- Metacognition - often defined as “learning to learn”.
- Motivation - willingness to engage in metacognitive and cognitive skills.

Skills

- Planning Stage - establishing goals and standards
- Performing Stage - demonstrating their commitment in learning experience
- Reflecting Stage - think and evaluate learning experience

Advantages

- Students are in control of their learning process and can manage time as they see fit.
- Students feel a sense of achievement and fulfillment when they have accomplished goals they have set for themselves.
- Self-regulation is not a process that is only applicable to school learning, it will be carried with students for the rest of their lives in the work force, social lives, and families.

Becoming A Better Student

 Becoming a better student involves more than just passing exams; it requires understanding and valuing the learning process. Students need to recognize the real-life applications of their education, develop critical thinking skills, and actively engage with the material. Freedom to choose what to learn and a supportive environment are essential for meaningful learning and personal growth.

Tips to Become a Better Student

1. Prepare Before going to school
   - Always try to research or read the next lesson, do your assignments at home or before going to school, eat and have proper rest before going to school.
   - In preparing for school, ensure your assignments and tools are ready, but also prioritize rest and nutrition to maintain energy throughout the day
2. Use different Resources
   - Aside from class books, use the library and the internet to access more information and stay updated on the latest developments in your subject

Tips to Become a Better Student

3. Be Critical and make learning personal
   - Understand why you're learning and how it relates to your goals. Evaluate information critically to appreciate and apply it effectively

4. Ask for Help
   - Use resources like school staff, parents, and friends to overcome academic challenges.

5. Engage in Activities
   - Join extracurricular activities to broaden experiences, build relationships, and maintain a balanced lifestyle.

THANK YOU!