

# **North East Nursing College, Sylhet**

## **Assignment On Psychological Theories Subject: Behavioral Science**

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# *Psychological Theories*

## Introduction Of Psychological Theories:

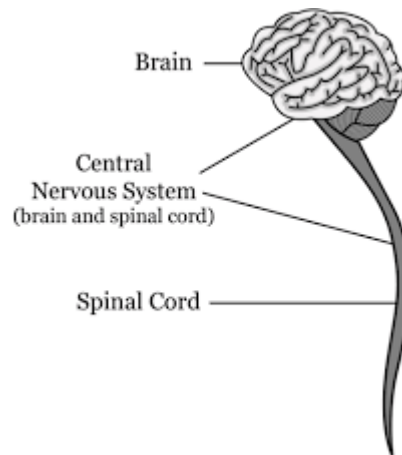
Psychological theories are systems of ideas that can explain certain aspects of human thoughts, behaviors and emotions. Psychology researchers create these theories to make predictions for future human behaviors or events that may take place if certain behaviors exist. In the workplace, these theories are useful while drafting plans to develop employee behaviors, increase motivation and promote productivity.

### Types of Psychology Theories:

Five of the main theories in psychology are behaviorist theory, psychoanalytic theory, humanist theory, cognitive theory, and biopsychological theory. Specific theories within each of these main areas are often one of two different types:

- **Grand theories:** This type of psychological theory strives to present an overarching framework that explains virtually all aspects of human behavior.
- **Mini-theories:** This type of psychological theory is much more focused and seeks to explain a much more specific aspect of human behavior.

## Introduction of Nervous System

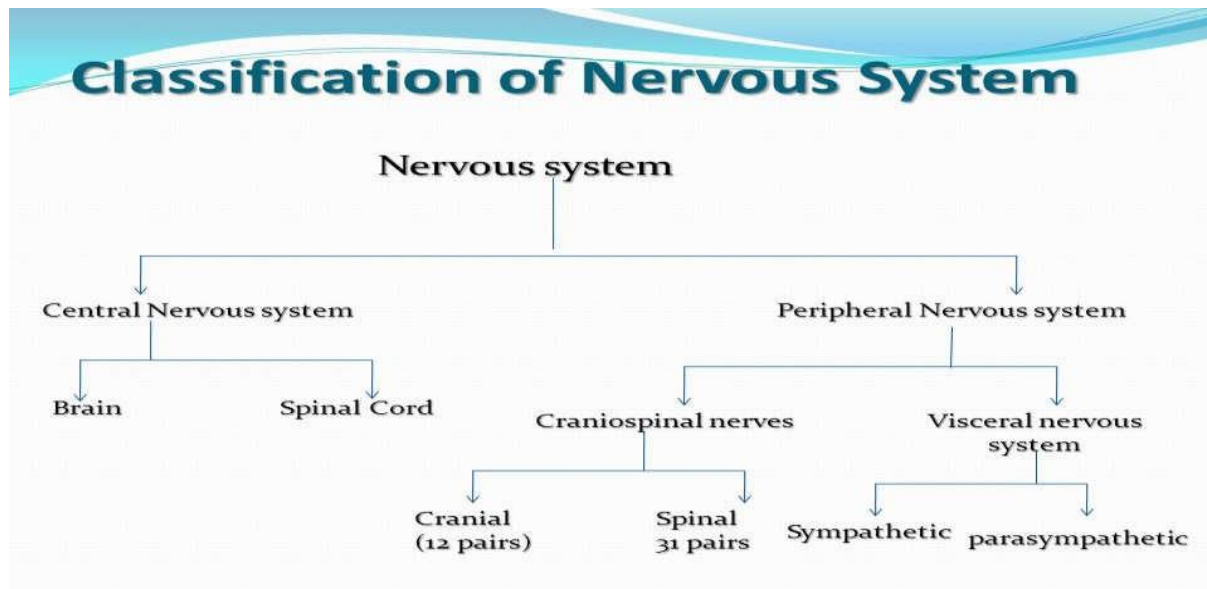


The nervous system is the controlling system of the body . The nervous system controls and coordinates all essential functions of the human body. It is the center of all activity including thought learning and memory. The nervous system composed of organs principally the brain, spinal cord, nerve and ganglia.

### Definition of Nervous System:

The nervous system is a complex network of nerves and cells that carry message to and from the brain and spinal cord to various part of the body,  
coordinating it's voluntary and involuntary actions.

## Classification of Nervous System:



The central nervous system is made up of the brain and spinal cord. And the peripheral nervous system is made up of the Somatic and The autonomic nervous system.

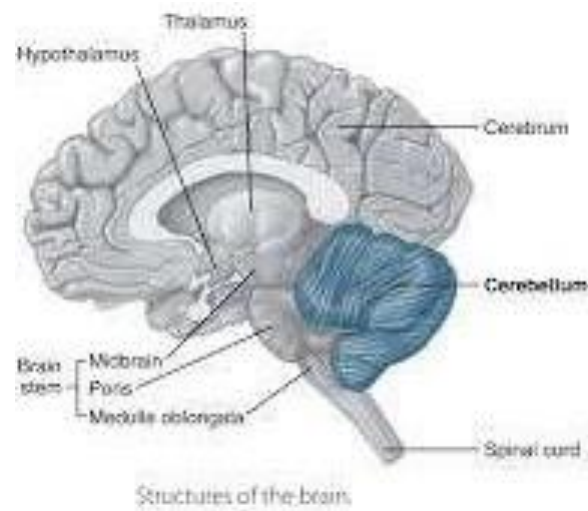
## Function of Nervous System:

- The nervous system detects and responds to changes and inside and outside the body, it is the center of all activities of the body.
- The somatic nervous system is involved in voluntary activities, such as movement of skeletal muscle.
- The autonomic nervous system is concerned with regulation of visceral functions. These are involuntary activities.

# Brain

## Definition of Brain:

The brain is one of the largest organs of the body, consist of about 100 billion neurons and 10-50 trillion neuroglia. It's about 1300g. It lies within the skull and is shaped like a mushroom.



**Parts of brain:** The brain consist of four principal parts.

**1.** The brain stem

- Midbrain
- Pons
- Medulla oblongata

**2.** The cerebrum **3.**The cerebellum **4.**The diencephalon

**1. The brain stem:** The brain stem is also known as medulla oblongata. It is located between the pons and the spinal cord and is only about 1 inch long.

**2. The cerebrum:** Supported on the diencephalon and brain stem. It is the largest part of the brain consist of the cerebral cortex.

**3. The cerebellum:** It is situated behind the pons and below the posterior portion of the cerebrum.

**4. The diencephalon:** The diencephalon is also

known as the fore brain. It is above the brain stem and consist of:

- The Thalamus and
- Hypothalamus.



## **Function of brain :**

The brain is made up of several parts. Each part has a certain function:

### **A. Cerebral Cortex:**

- Thought, voluntary movement, language, reasoning and perception are the major functions of the cerebral cortex.

### **B. Cerebellum:**

- The major functions of the cerebellum are maintenance of movement, balance and posture.

### **C. Hypothalamua:**

- The hypothalamus regulates the body temperatures, emotions and hunger, thirst and controls the ciradian rhythms.

### **D. Brain stem or Medulla oblongata:**

- This area is vital for life as it controls breathing, heart rate and blood pressure.

### **E. Thalamus:**

- Works by integrating sensory information and motor information.
- The thalamus receives sensory information and relays this information to the cortex.

## **F. Limbic System :**

- These help in controlling the emotional response.
- The hippocampus is also important for learning and memory.

## **Basal Ganglia:**

- This part works in maintaining balance and movements.

## **Midbrain:**

- This part of the brain has sites controlling vision, hearing ,eye movement and general body movement.

Nervous tissue consists of two types of cells:

Neurons

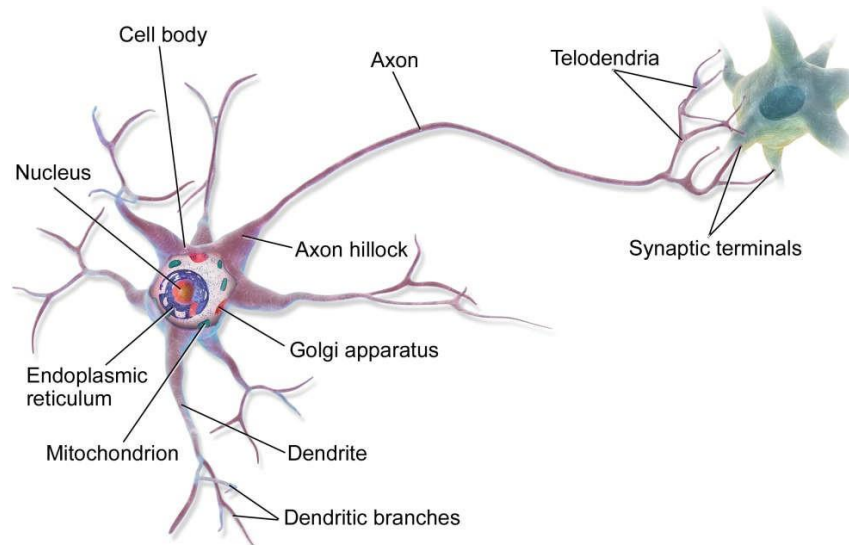
## Definition of Neuron:

The neuron is the basic unit in the nervous system. It is a specialized conductor cell that receives and transmits electrochemical nerve impulses.

## Parts of Neuron:

There are three different parts of the neuron:

- The cell body
- Dendrites
- Axon



- **The cell body:** It contains nucleus surrounded by cytoplasm which includes endoplasmic reticulum, Lysosome, mitochondria and Golgi complex.
- **The dendrites:** It is the receiving or input parts of neuron. Structurally it is short tapering and highly branched, forming a tree shaped which come out from the cell body.
- **The axon:** It conducts nerve impulses toward another neuron, a muscle fiber or a gland cell.

### **Function of Neuron:**

1. Helps to produce sense.
2. Helps to thinking.
3. Helps to remembering.
4. Helps to control muscle activity.
5. Helps to regulate glandular secretions.

# Neurotransmitters

**Introductions of Neurotransmitters:** Neurotransmitters are chemical messengers that your body can't function without. Their job is to carry chemical signals ("messages") from one neuron ("nerve cell") to the next target cell.

**Definition of Neurotransmitter:** Neurotransmitters are chemical substances that are secreted when the axon terminal of a presynaptic neuron is excited and transmit nerve impulse across the synapse (from neuron to neuron and from neuron to effector cells) either to excite or inhibit the target cells.

## **Characteristics Neurotransmitters:**

Neurotransmitters are released by presynaptic nerve terminal into the synapse.

To be considered as a post-junctionally acting neuro- humoral transmitter a substance must fulfill the following criteria:-

1. It should be present in the presynaptic neuron.
2. It should be released in the medium following nerve stimulation.
3. It's application should produce responses identical to those produced by nerve stimulation.
4. It's effects should be antagonized or potentiated by other substances which similarly alter effects of nerve stimulation.

## **Classification of Neurotransmitter :**

A.Excitatoyneurotransmitter:	i.Acetylcholine ii.Nor-adrenaline iii.Adrenaline iv.Glutamate
B.Inhibitoryneurotran:	i.GABA(Gamma Amino Butyric Acid) ii.Dopamine iii.Glycine iv.Serotonin v.Taurine vi.Alanine
C.Mixedneurotransmitter:	i.Enkepalins ii.5-HT iii.Histaglandin iv.Nor-epinephrine

## **Major Neurotransmitters:**

Type	Mechanism of Action	Physiologic Effects
1.Dopamine	Excitatory	Controls complex movements, motivation,cogition,regulates emotional response
2.Norepinephrine	Excitatory	Causes change in attention, learning and memory, sleep and wakefulness ,mood
3.Serotonin	Inhibitory	Controls food intake, sleep and wakefulness, temperature regulation,pain

		control, sexual behaviors, regulation of emotions
4.Acetylcholine	Excitatory or inhibitory	Controls and wakefulness cycle, signals muscles to become alert
5.Gamma Amino butyric Acid(GABA)	Inhibitory	Modulates other Neurotransmitters

### **Other types of Neurotransmitters:**

#### **A.Centrally acting:**

1. Acetylcholine
2. Dopamine
3. Serotonin
4. Histamine

#### **B.Peripherally acting :**

1. Acetylcholine
2. Nor- epinephrine

C. According to chemical nature:

“Classical Neurotransmitters “

a. Acetylcholine (ACh)

b. Amines:

- Catecholamines:
  - ✓ Epinephrine (E)
  - ✓ Nor- epinephrine (NE) and
  - ✓ Dopamine (DA)
- Histamine (H)
- Serotonin (5-HT)

C. Amino acids in (CNS):

- Aspartate (aspartic acid)
- Glutamate (glutamic acid)
- Gamma-aminobutyric acid (GABA) and
- Glycine



## CEREBELLUM

### ♣ Definition of Cerebellum:

The portion of the brain in the back of the head between the cerebrum and the brain stem. The cerebellum controls balance for walking and standing, and other complex motor functions.

### ◆ Function of Cerebellum

- Control of voluntary activity (via pyramidal system).
- Control tone, posture & equilibrium (via extra pyramidal system).
- Maintains the motor activity of the distal part of limbs. E.g- hand, fingers, feet, toes, etc.
- Concerned with overall planning and time of the sequential motor activity.

## Neo-Cerebellum

### ♣ Definition of Neo-Cerebellum:

The lateral portions of cerebellar hemispheres are called neo-cerebellum.

### ◆ Function of Neo-Cerebellum

1. Planning and programming of movements by interacting with the motor cortex.
2. Helps in muscular co-ordination.
3. Responds to proprioceptive, tactile, visual & auditory stimulation.

## Hypothalamus

### ♣ Definition of Hypothalamus:

The Hypothalamus is a part of the diencephalon, composed of a number of groups of nerve cells.

### ◆ Location of Hypothalamus:

The hypothalamus is situated below and in front of the thalamus, immediately above the pituitary gland.

## ♠ **Functions of Hypothalamus:**

### 1. Endocrine-

- ✓ By forming releasing or release inhibiting hormones,the hypothalamus regulates secretion of the pituitary gland.
- ✓ Secretion of oxytocin and antidiuretic hormone (ADH).

### *Regulation of-*

- The autonomic nervous system.
- Thirst and water balance.
- Appetite and satiety.
- Emotional reactions, e.g., pleasure,fear,rage.
- Body temperature.
- Sexual behaviour including mating and child rearing.
- Biological clocks or circadian rhythms, e.g, sleeping and walking cycles,body temperature.

## GLAND

### ◆ *Definition of Gland:*

Gland may be define as the specialized type of epithelial tissue which have secretion.

### ♠ *Classification of Gland:*

#### ❖ According to presence of duct:

- Gland are two types. These are-
  1. Exocrine. e.g- Salivary gland.
  2. Endocrine. e.g- pituitary gland.

#### ❖ According to number of cell-

- Gland are two types. These are-
  - i. Unicellular. E.g- Goblet cell.
  - ii. Multicellular. E.g- Liver, Thyroid.

#### ❖ According to mood of secretion-

- Gland are three types. These are-
  - a. Merocrine. E.g- Liver, parotid, thyroid.
  - b. Holocrine. E.g- sebaceous gland.
  - c. Apocrine. E.g- Mammary gland.

#### ❖ According to nature of secretion-

- Gland are three types. These are-
  - 1) Serous. e.g- Parotid.
  - 2) Mucous. e.g- Goblet cell.
  - 3) Mixed gland. e.g- Submandibular and sublingual gland.

## Types of Gland

Based on the way of secretion

Glands are mainly divided into two types based on secretion as-

- a. Endocrine gland
- b. Exocrine gland.

### A. Endocrine glands: -

Definition of endocrine gland:

Endocrine glands are the glands which synthesize and release hormones into the blood. These glands are commonly called ductless gland because the hormones secreted by them are released directly into blood without any duct.

Types of endocrine glands and their secretion include-

1. Pituitary gland
2. Thyroid gland
3. Parathyroid gland
4. Adrenal gland

## 1. Pituitary gland

**Definition:** The pituitary gland or hypophysis is a small endocrine gland which secretes at least nine hormones.

**Location:** Sella turcica (a bony cavity at the base of the brain) or below the hypothalamus in the brain.

**Diameter:** About 1cm.

**Weight:** About 0.5-1g

**Parts:** Physiologically, the pituitary gland is divided into two portions-

- Anterior pituitary gland (adenohypophysis) &
- Posterior pituitary gland (neurohypophysis)

❖ **Anterior pituitary gland:** Anterior pituitary is composed of glandular tissue. It is also called master gland because it regulates many other endocrine glands through its hormones

oIt consists of three parts:

- i. Pars distalis
- ii. Pars tuberalis
- iii. Pars intermedia

**Location:** It is located in the front part of pituitary.

Six important hormones are secreted by the anterior pituitary. These are-

- i. prolactin.
- ii. Somatotrophin.
- iii. Luteinizing hormone.
- iv. Thyroid stimulating hormone.
- v. Adreno corticotrophic hormone.
- vi. Follicle stimulating hormone.

## Pituitary Gland

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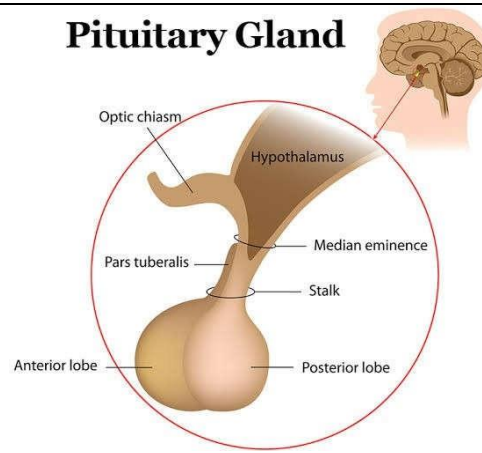


Figure: Pituitary gland

❖ Posterior pituitary gland: Posterior pituitary gland composed of cells called pituicytes and nerve fibres.

It consists of three parts:

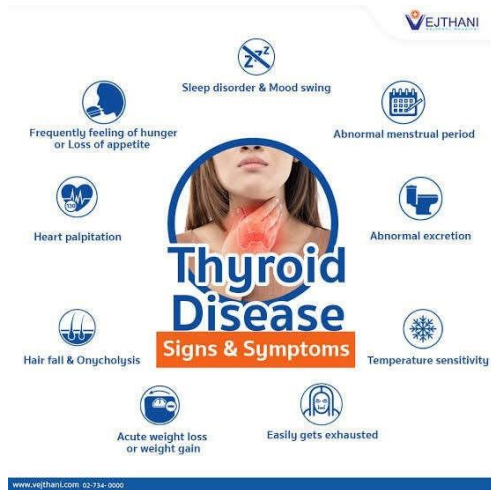
- i. pars nervosa or infundibular process.
- ii. Neural stalk or infundibular stem.
- iii. Median eminence.

Two important hormones: Oxytocin and Antidiuretic hormone (ADH) are secreted by the posterior pituitary, these are-

- i. Oxytocin &
- ii. Vasopressin or Antidiuretic hormone (ADH).

## 2. Thyroid gland

Definition: The butterfly-shaped thyroid gland is one of the largest of the endocrine glands, that secretes two major hormones, thyroxine and triiodothyronine.



It produces thyroid hormones T3 & T4.

Location: The thyroid gland is situated in the neck in front of the larynx and trachea at the level of the 5th, 6th, and 7th cervical and 1st thoracic vertebrae.

Weight: About 25g.

Parts: The thyroid has two lobes, which are connected by an isthmus.

Function: Thyroid gland is responsible for secretion of three hormones- T4, T3 and calcitonin.

Thyroid hormone:

- Thyroxine (T4).
- Triiodothyronine (T3).
- Calcitonin.

Note: Two iodine-containing amine hormones of thyroid gland are: T4 and T3.

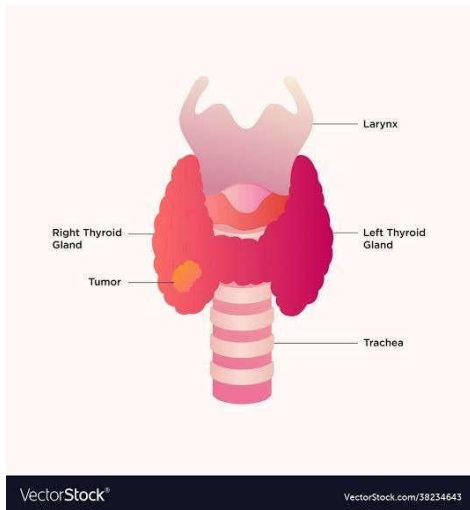


Figure: thyroid gland

### 3. Parathyroid gland

Function of parathyroid gland: It produces parathormone.

- ✓ Both thyroid and parathyroid glands are examples for types of glands in the neck.



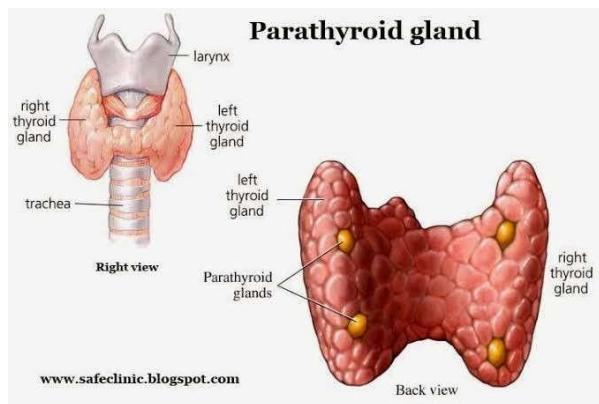


Figure:Parathyroid gland

## Chapter 2 4.Adrenal gland

Definition: There are two adrenal glands, each on the upper poles of the two kidneys. The adrenal glands are also called the suprarenal glands.

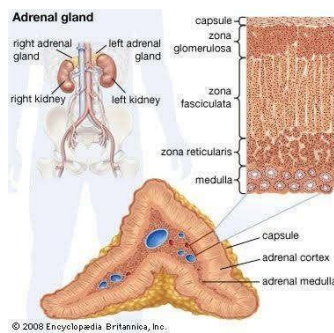


Figure: Adrenal gland

Location: It is located on the two kidneys.

parts:

Adrenal gland is composed of two distinct parts: the outer cortex and inner medulla.

## exocrine Glands:

Definition of exocrine glands: Exocrine glands are the glands that have tubular ducts connecting the surface, by which secreted material leaves the gland.

• Types of exocrine glands and their secretions include-

- a) Salivary glands,
- b) Pancreas,
- c) Sperm,
- d) Sweat glands,
- e) Sebaceous glands,
- f) Lachrymal glands.

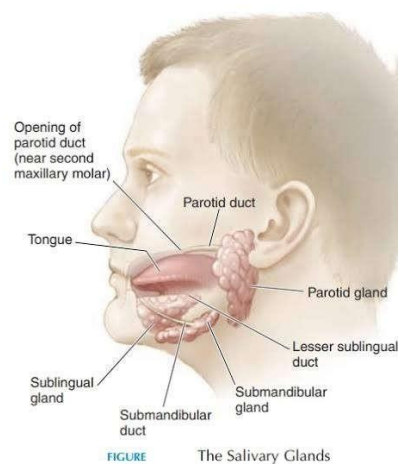
### *a. Salivary glands:*

Definition: Salivary glands are exocrine glands in the mouth which produce saliva.

Name of salivary glands:

o Three pairs of large salivary glands:

- i. Parotid glands
- ii. Submandibular glands
- iii. Sublingual glands.



## Structure of salivary glands:

- ✓ The salivary glands are surrounded by a *fibrous capsule*.
- ✓ They consist of a number of *lobules* made up of small *acini* lined with *secretory cells*.
- ✓ The fine *ductules* drain acini that join up to form larger ducts.

## b. Pancreas:

Definition: Secretes enzyme amylase, trypsin and lipase. These enzymes digest carbohydrates, proteins and fats respectively.

Location: The pancreas lies in the epigastric and hypochondriac regions of the abdominal cavity.

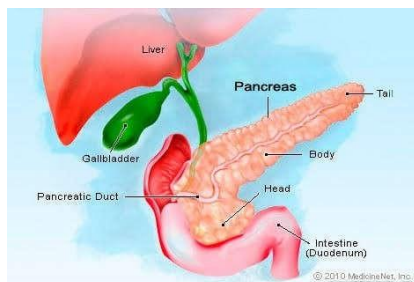


Figure: Pancreas

Shape: J- shaped or retort-shaped.

Size:

- ✓ Length-about 15 to 20 cm.
- ✓ Breadth-about 2.5 to 3.8cm.
- ✓ Thickness-about 1.2 to 1.8 cm.

Weight: about 80-90 g.

Parts of pancreas: It has 4 parts-

- 1) Head,
- 2) Neck,
- 3) Body and
- 4) Tail.

### C. Sperm:

sperm produce Hyaluronidase an enzyme which helps it swim in the uterine tissue to reach ova.

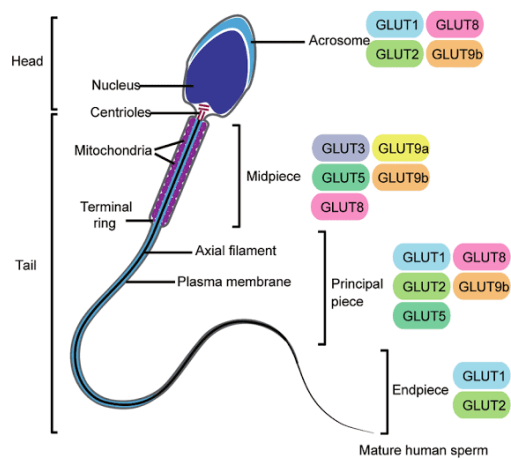


Figure: Sperm

#### D. Sweat glands:

secrete sweat which acts to regulate body temperature and also excretion.

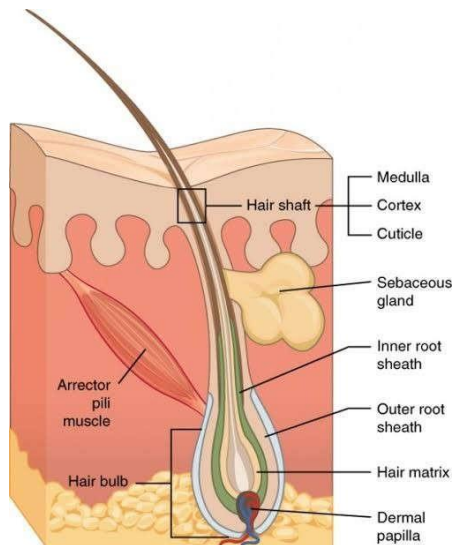


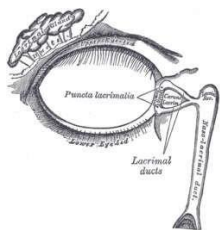
Figure: Sweat gland

#### E. Sebaceous glands:

sebaceous glands secrete sebum.

Sebaceous glands are positioned in the mid-dermis adjacent to the hair shaft and empty by a holocrine mechanism into the hair follicle through a duct located where the inner root sheath terminates.

#### F. Lachrymal glands:



In eye secrete water to moisten the eye. The lacrimal gland is located within the orbit above the lateral end of the eye. It continually releases fluid which cleanses and protects the eye's surface as it lubricates and moistens it. These lacrimal secretions are commonly known as tears

### Chapter 3 Difference between Endocrine and Exocrine:

Traits	Endocrine	Exocrine
1. Definition	A gland that secretes directly into the blood.	A gland that secretes into ducts that lead to epithelial surfaces.
2. Ducts	Absent	Present
3. Name of secretions	Hormone	Mucus, sweat, oil, saliva
4. Response time	Longer	Shorter
5. Nature	They are hormone secreting glands	They are enzyme secreting glands.
6. Activity	The action of released hormone is prolonged.	The activity of the enzyme is short term.
7. Example	Some examples include adrenal gland, Pituitary gland, and thyroid gland.	Some of the examples include sweat glands, gastric glands etc.

# Social Learning Theories

## Concept about learning

Learning has been defined as a permanent change in behavior that occurs as a result of practice or experience and not due to maturation. A little girl, being indisposed is taken to a hospital. The nurse prepares the syringe which the little girl looks on with interest. The nurse injects the medicine and the girl feels pain. When the little girl is taken to the nurse next time, she starts screaming when the nurse takes the syringe. She had learned by experience that injections are painful. Learning caused changes in her behavior.

Learning is central to all our behavior as we learn to speak, write, think and perceive. Our attitudes and emotional expressions are also learned behaviors. There are three important factors in the definition of learning:

- Learning brings change in behavior (usually for the better)
- Change takes place through practice or experience and not due to maturation
- The change in behavior should be relatively permanent lasting for years, months or weeks.

### Definition of Learning:

**According to Robert Gagne**"A change in human disposition or capability that persists over a period of time and is not simply ascribable to processes of growth.

**"According to Kingsley III. and Garry R** -Learning is the process by which behavior is originated or changes through practice and training.

**According to HP Smith** -Learning is the acquisition of new behavior or strengthening or weakening of old behavior as the result of experience.

**According to ML. Bigge** -Learning may be considered as change in insights, behavior, perception, motivation or a combination of these.

**Or,**

Learning has been defined as permanent change in behavior that occurs as a result of practice or experience and not due to maturation.

**Or.**

Learning may be defined as a process of apprehension clarification and application of meanings It is a continuous extension and refinement of meaning.

**Or,**

Learning is defined as "any relatively permanent change in behavior that occurs as a result of practice and experience.

**This definition has three important elements :**

- Learning is a change in behavior-better or worse.
- It is a change that takes place through practice or experience, but changes due to growth or maturation are not learning.
- This change in behavior must be relatively permanent, and it must last a fairly long time.

### **Types of Learning Domains of Learning:**

**There are three types of learning :**

1. Cognitive learning (knowledge)
2. Affective learning (attitudes)
3. Psychomotor learning (skills)

**Conventionally learning is discussed under three domains.**

1. Cognitive domain: It involves-

- Information
- Development of knowledge
- Intellectual skill

2. Affective domain: Based upon behavioral aspects, this beliefs domain incorporates

- Attitudes
- Emotions
- Enthusiasms
- Feelings



## Other Classification:

**1. Verbal learning:** It helps in speaking language as It helps in speaking language as use of communication devices like words, symbols, figures, sounds and pictures.

**2. Motor learning:** It includes learning motor skills such as walking dancing, typing, cycling and swimming.

**3. Affective learning:** It deals with emotional learning such as learning of habits, interests. Attitudes, appreciation, etc.

**4. Cognitive learning:** It includes learning of concepts, ideas and problem solving. The learner acquires knowledge and information through which he forms concepts, sees relationships and arrives at generalization.

**5. Serial learning:** It is when the learner is presented with types of learning that exhibits some sequential or serial order. For example, children learn to master lists of materials such as alphabet, multiplication table. Names of presidents and prime ministers

**6. Skill learning:** A skill is a refined pattern of movement or performance based upon demands of the situation. The student nurse can learn by:

- Listening to directions and explanations.
- Reading a description
- Seeing a demonstration
- Paying attention.

The practice depends on attitude and will of the learner and eradication of mistakes.

### Factors Influencing/Affecting Learning:

**A. Intelligence:** Learning depends upon the intelligence or mental faculty of an individual. It involves the activity of sensory adjustment and motor mechanisms of the body. The mental faculty is related to heredity, nutrition and IQ. Children with low IQ are poor learners they may not learn at all.

**B. Age:** The curve of learning reaches its peak between 22 & 25 years or age. After the age of 30, there is a sharp decline. It has been appropriately said. You cannot teach an old dog a new trick.

**C. Learning situation:** Physical facilities for learning, viz. institutions, teachers, text book, audio-visual aids promotes learning

**D. Motivation:** In order to learn effectively, there must be educate motivation. The powerful motives are encouragement. Prize reward and success. Thus stimulate learning

**E. Physical health:** A physically handicapped person e.g. deaf, dumb, chronically sick cannot learn.

**F. Mental health:** Worries, anxieties and fears interfere with learning.

### Chapter 4 Others factors which may affect learning are mentioned below:

**1. Maturation:** It makes speedy learning possible. The child who is physically and mentally mature learns a subject at a faster rate.

**2. Physical and Mental Development:** The child affects learning. The child who is mentally and physically not developed learns at a slower rate.

**3. Home Conditions and School Environment affect learning.**

**4. Academic Ability of the Teacher Affects learning.**

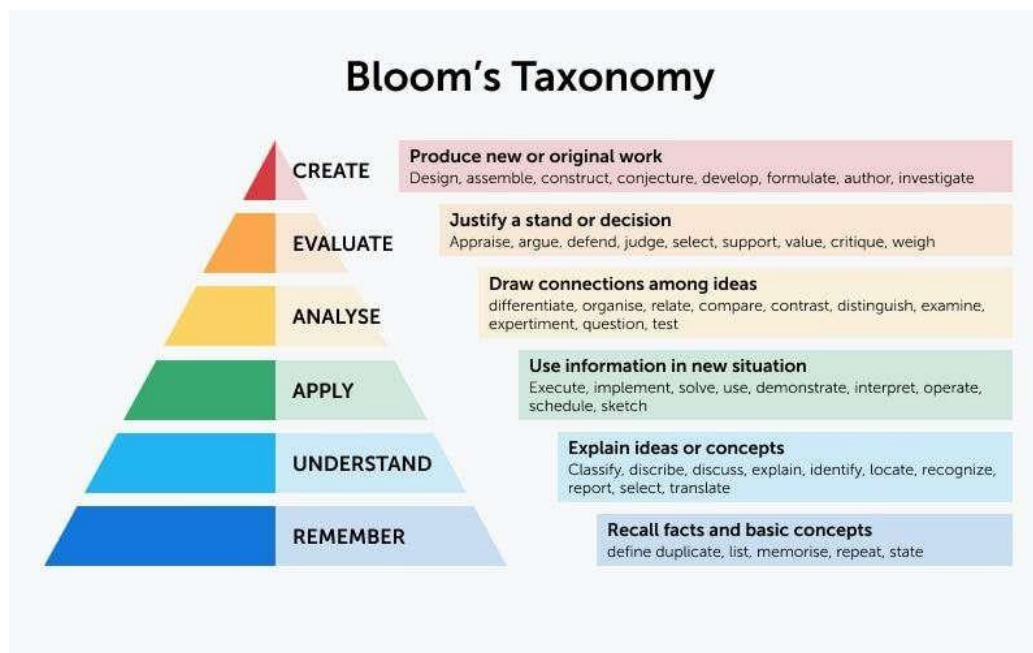
**5. Meaningfulness of Subject-matter makes learning easier.**

**6. Teaching Methods.**

## The different level of learning

Bloom's original 1956 Taxonomy of Educational Objectives identified the following levels of learning (arranged from lower-order to higher-order levels of learning):

1. **Knowledge**- The remembering of previously learned material; this involves the recall of a wide range of material, from specific facts to complete theories.
2. **Comprehension** - The ability to grasp the meaning of previously-learned material this may be demonstrated by translating material from one form to another, interpreting material (explaining or summarizing), or by predicting consequences or effects.
3. **Application**- The ability to use learned in material new and concrete situation may include the application of rules, methods, concepts, principles, laws, and theories.



**4. Analysis** - The ability to break down material into its component parts so that its organizational structure may be understood; this may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved.

**5. Synthesis** - The ability to put parts together to form a new whole, this may involve the production of a unique communication (thesis or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information).

**6. Evaluation** -The ability to judge the value of material for a given purpose. The judgments are to be based on definite internal and/or external criteria.

### **Chapter 5 Principle of Learning:**

1. Learning is continuous, dynamic and ongoing process and has no equalitarian
2. It is an individual matter, each learner learns his own way.
3. Motivation is the key of learning
4. Relevance of learning experience should be clear to the learner and must be related to his needs of lining.
5. The learner should be able to communicate back to the teacher what he or she has learned and as such feedback is important
6. In the learning process there should not be any authority-dependency relationship between the teachers and students; it cooperative and collaborative

## Laws of effective learning

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**Laws of effect:** Any response followed by a reward will be strengthened. Any response which is unsuccessful will be weakened.

**Law of exercise:** The law of exercise states that there is a direct relationship between repetition and the strength of the stimulus response bond. The law of exercise is based on the law of use and law of disuse. As per the law of use, any task that is repeated shows a tendency for the strengthening of the bond and as per the law of disuse any task that is not repeated shows a tendency for the weakening of the bond. The learned activity (reading, writing, typing, singing, drawing, dancing etc). Is learned by constant practice over a long period.

**Law of readiness:** Learning takes place best when a person is ready to learn. If a person is ready to act, acting gives him satisfaction. A person cannot learn if he is not ready to learn. Readiness includes motivation, inclination, attitude or mindset.

Time when the Trial and Error Theory may be used

### The method of Trial and Error is used when:

1. The learning is completely motivated and sees the goal clearly. The rat tries to enter the maze only because it is hungry and knows that there is food inside the maze.
2. When perception or learned activities alone are not sufficient.
3. When the learner fails to find the solution to the problem through perception, understanding, intelligence and language. Then he proceeds blindly, tries in various directions, commits errors; eliminates them and finally arrives at the correct response.
4. Human beings learn most of the simple motor skills by trial and error.

### Effective Learning

Effective learning may be defined as the “Learning that reflects activity which enables the learner to draw upon previous experience to understand and evaluate the present, so as to shape future action and formulate new knowledge “.

Yoakman and Simpson have described the following nine important characteristics of learning

- A. Learning is growth :
- B. The individual grows as he lives. The growth implies I both physical as well as mental development of the learner.
- C. Learning is adjustment: Learning enable the individual to adjust Himself properly, with new situations.
- D. Learning is purposely : All kinds of learning is goal oriented. The individual acts with some purpose.
- E. Learning is experience : The individual learns with through experience. Human life is fall of experience all these provide
- F. new knowledge, skill, understanding amd attitudes.
- G. Learning is activity: Learning is given more important than teaching. It implied self -activity of learning.
- H. Learning intelligent : mere cramming without proper understanding does not make learning. Thus meaningless efforts do not produce permanent results. Learning therefore must be intelligent.
- I. Learning is Both individual amd social:
- J. Although learning is an individual activity, it is an individual activity, it is social also. Individual mind is conscious or unconsciously affected by the group activisties. Individual is influenced by his Peers, friends, relatives, parents amd classmates and attitudes in some way or others.

## Principles of Learning According to Carl.Rongers

1. Human being have a natural potentiality for learning.
2. Significant learning takes place when the subject matter is perceived by the students and having relevance for his own purpose. 3.Learning which involves a change in self organisation in the perception of oneself is threatening and tends to be resistant.
3. Those learning which threatening to the self are more easily perceived in differentiated fashion and learning can proceed .
4. When treat to the Self is low,experience can be perceived in differentiated fashion, and learning can proceed.
5. Much significant learning is acquired by doing.
6. Learning significant when the student participate responsible in the learning process.
7. Self – initiated learning which involves the whole person of the learner feeling as Well as intellect is the most lasting and pervasive.
8. Independence, creativity and self- reliance are all facilitated.
9. The the -Reliance are all facilitated. 10.The most socially useful learning in the modern world is the learning of The process.

## Characteristics of learning

- ✓ learning is a fundamental process of life.
- ✓ It is a continuous process it affects all modes of behaviour.
- ✓ Learning is change in response or behaviour, may be favorable or unfavourable.
- ✓ It is a process of change not a product In the form of changed behaviour.

### Step of learning process

- ✓ 01.Motivation within the learner.
- ✓ 02.Goal or goals become related to the Motivation.
- ✓ 03.Barriers of difficulties are perceived and experienced and tension rises .strong barriers may cause excessive tension which may altogether discourage and confuse the learner.
- ✓ 04.The search for an appropriate solution to the problem or an appropriate line of action to reach his goal.
- ✓ 05.The most appropriate line of action is selected and practiced; inappropriate behaviors dropped.

### Components of learning

- ✓ Learning is a wider and perfect sense reflects as knowledge attitudes and skills development. These components of learning indicated by five C, whose meanings express like as-
- ✓ 01.C-comprehension-  
with critical understanding.
- ✓ 02.C-critical-analysis leading to appropriate conclusion(critical judgments)
- ✓ 03.C-competency-with practical skill development.



- ✓ 04.C-creativity-able to create in a better way.
- ✓ 05.C-confiden-developed in the learner for application of what is learn in real situation .

### Styles/ways of Learning

Learning is a complicated concept as everyone is unique in their own way, and learns in their own way as well. This said, it is still very much possible to classify a learning style into one of seven categories. Perhaps you fall into one of the following:

01. Visual: These people prefer to use pictures, images, diagrams, colors, and mind maps.

02. Physical: These are the “learn by doing” people who use their body to assist in their learning. Drawing diagrams, using physical objects, or role playing are all strategies of the physical learner.

03. Aural: People who prefer using sound (obviously), rhythms, music recordings, clever rhymes and so on.

04. Verbal: The verbal learner is someone who prefers using words both in speech and in writing to assist in their learning. They make the most of word-based techniques, scripting, and reading content aloud.

05. Solitary: The solitary learner prefers to learn alone and through self-study.

06. Logical: The people who prefer using logic, reasoning, and systems to explain or understand concepts. They aim to understand the reasons behind the learning, and have a good ability to understand the bigger picture.

07. Social: These people are the ones who enjoy learning in groups or with other people, and aim to work with as many as possible.

### **Importance /Need of Learning for nurses:**

Modern nursing is a complicated and challenging profession .The student nurse must have clear goal interest to learn .she has to acquire a lot of information from books , lectures and discussions. There are many complicated skills she has to learn with repeatedpractice.

The following 25 suggestions listed by crow, crow and skinner may be of practical value to the nurse in the development of the habits of effective study:

1. Study with a definite purpose in mind.
2. Evaluate immediate and remote goals.
3. Provide a definite place for study.
4. See that physical conditions are conducive to study.
5. Plan and follow a definite time schedule.
6. Look for the main ideas in the reading material.
7. Cultivate the habit of reading rapidly and carefully.
8. Outline the study material.
9. Make brief, well-organized notes in your own language.
10. Evaluate the difficulty of the material.
11. While reading, raise significant questions on the material to be learned; then answer them.
12. Study with intent to recall.
13. Attend carefully to all illustrative materials.
14. Complete all study assignments.
15. Let active study and rest period be interspersed with each other.
16. Try to learn the unit or the lesson as a "whole" when possible.
17. Concentrate on what you are studying at the time.
18. Shut out all emotion distractions.
19. Overlearn sufficiently so that delayed recall is possible.
20. Learn to summarize and review what you have learn or read.
21. Be alert to ideas emphasized by the teacher.
22. Think over the statements made by the author and try to challenge them.

23. Find out what several authorities say about a topic or an idea.
24. Apply subject-matter learned in as many practical situations as possible.
25. Make intelligent use of the dictionary

### [Trial And Error Method Theory of Learning Mentioned by Edward Lee thorndike Edward Lee Thorndike](#)

(1874-1947), the American psychologist, considered as the father of educational psychology, conducted a series of experiments (1911) on trial and error method of learning by animals.

#### Experiment:

A hungry rat was set free at the entrance of a wooden maze which contained many pathways from the entrance to the center, But all the ways except one were blocked somewhere in the middle. A piece of bread was placed in the center of the maze. Seeing the bread, the hungry rat rushed to get it. It happened to enter the wrong path which was obstructed in the middle. Consequently it had to return to the entrance but only to try other paths till it reached the bread. The next day, it made less errors. The experiment continued for several days till the rat was able to identify the right path at the very first glance without trying out other parts. Thorndike conducted similar experiments on a number of animals, eg, monkeys, dogs, hens and cats. The errors were reduced as the trials were repeated, i.e. SR connections were made, From, the rat's experiment and several other similar experiments. Thorndike formulated certain laws of learning. According to Thorndike all learning is trial and error.

## Law Of Effective Learning:

A.Law of effect: Any response followed by a reward (Food) will be strengthened. Any response which is unsuccessful will be weakened

B.Law of exercise: The law of exercise states that there is a direct relationship between repetition and the strength of the stimulus-response bond. The law of exercise is based on the law of use and law of disuse. As per the law of use, any task that is repeated shows a tendency for the strengthening of the bond and as per the law of disuse any task that is not repeated shows a tendency for the weakening of the bond. The learned activity (reading, writing, typing, singing, drawing, dancing, etc.) is learned by constant practice over a long period.

c.Law of readiness: Learning takes place best when a person is ready to learn. If a person is ready to act, acting gives him satisfaction. A person cannot learn if he is not ready tolerant. Readiness includes motivation, inclination, attitude or mindset.

Thorndike ignored the role of intelligence and insight learning Many scientific discoveries have taken place suddenly without any prior trial and error. Quite often individuals learn suddenly by insight rather than by trial and error which is a very time consuming process.

## Effective Learning:

Effective learning may be defined as the "Learning that reflective activity which enables the learner to draw upon previous experience to understand and evaluate the present, so as to shape future action and formulate new knowledge"

Or,

Learning is:-

- an activity of construction, handled with (or in the context of) others,
- driven by learner's agency.
- Effective learning is all of these at their best, Plus the monitoring and review of whether approaches and strategies are proving effective for the particular goals and context.

**Q. Explain the importance of learning for nursing students?**

**Answer:**

**Importance/Need of Learning for Nurses:**

Modern nursing is a complicated and challenging profession. The student nurse must have clear goal' interest to learn. She has to acquire a lot of information from books, lectures and discussions. There are many complicated skills she has to learn with repeated practice.

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14. Complete all study assignments.
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23. Find out what the several authorities say about a topic or an idea.
24. Apply subject-matter learned in as many practical situations as possible.
25. Make intelligent use of the dictionary.

**Q. Discuss the theories of learning?**

**Q. Explain the modes of learning?**

**Q. What are the theories of learning?**

**Answer:**

#### **Theories/Modes of Learning:**

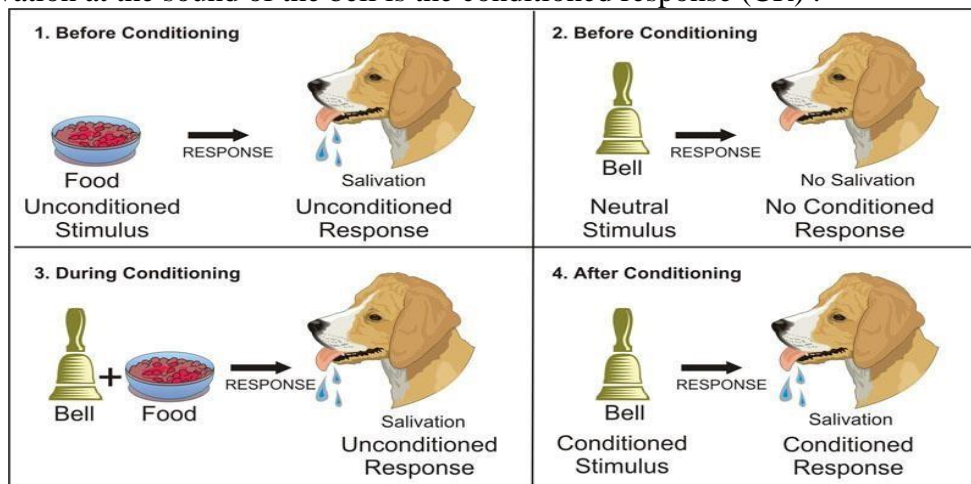
- 1. Learning by conditioned reflex:** It is well known that when doxy food, they begin to salivate. This is an inborn reflect. Pavlov, the Russian psychologist discovered that if a bell has run when the dogs were fed, eventually salvation could be induced by the ringing on the bell alone this is called the conditioned reflex.
- 2. Trial and errors:** The lower animals (Apes & cats) learned by trial and error method. We also learn a good deal by this method. A child tries and tries again using a number of approaches until accidently the ideal approach became obvious.
- 3. Learning observation and imitation:** A child copies or imitates gesture, expression and movements such as walking. He learns language by observation and imitation. Observation is an important element medical examination. With sensory
- 4. Learning by doing:** Here there is coordination of muscular responses impulses. Nursing skills e.g. (bed making, applying bandaging, giving birth) are leant by doing.
- 5. Learning by remembering:** We also learn by memorizing- remembering dates, events memorizing a poem, remembering faces etc.
- 6. Learning by insight:** When we are faced with problem, we solve it by insight or mental exploration. When the doctors makes a diagnosis, some amount of insight is involved. It appears that human beings learn by a combination of methods.
- 7. Demonstration:** Here a procedure is carried out step by step, slowly and accurately before and audience, the demonstrator ascertaining that the audience understand how to perform it. The demonstration involves the audience in discussion, when possible.
- 8. Field experience:** It involves a series of activities for diagnosis problem, planning procedures to solve them and implementing and evaluating thus programs. It provides opportunities to acquire with number of skills.
- 9. Problem solving.**

**Q.Explain the Pavlov's experiments of learning ?**

**Answer :**

**Pavlov's experiment of Classical Conditioning:**

In Pavlov's experiment, a researcher first attached a capsule to a dog's salivary gland to measure salivary flow. A bell was rung, every time, the dog Sam was given the meat powder. This was reported several times. Later Pavlov observed that the dog salivated at the mere sound of the bell, without meat powder being followed. Thus, the dog had been conditioned to respond to a new stimulus which was previously an unconditioned response. The meat powder is the unconditioned stimulus (UCS) salivation is the unconditioned response (UCR) sound of the bell is the conditioned stimulus (CS) and salivation at the sound of the bell is the conditioned response (CR) .



**Classical Conditioning**

Pavlov's theory is that CS (bell) simply as a result of pairing with the UCS (meat powder) acquires the capacity to substitute for the UCS in evoking the response. This means that an association is formed between the CS and the UCS, so that CS becomes the equivalent of the UCS and results in a reflex or automatic response. Pavlov showed us how a significant internal process such as learning can be studied objectively.

Pavlov believed that this Association took place in the brain. Two areas of Brain one for the UCS and the other for the CS become activated during classical conditioning and the activation of UCS area resulted in a reflex or automatic response. Pavlov showed us how a significant internal process such as learning can be studied objectively.

**Q. Explain operant or instrumental conditioning**

**Q. Write down the about the operant or instrumental conditioning .**

**Ans: Operant or instrumental conditioning**

Instrument conditioning is associated with the work of EL Thorndike (1874-1947) and BF Skinner (1904-1990) Thorndike was the first to conduct Laboratory experiment (1998) on operant conditioning leading to the formulation of the law of effect which formed the basis of the principle of reinforcement. But it was Skinner who made operant conditioning popular with experiment on pigeons, rats and human beings.

Skinner placed a rat inside a glass box (Skinner box) containing a lever food tray the animal was free to explore the box.

Whenever the lever in the box was pressed, automatically a pellet of food was dropped on the tray. By a mechanical device the number of times the rat pressed on the lever was recorded, pressing of the lever was the response to be learned (the operant response) and the food was the stimulus consequence (reinforcement) the rate of presses increased

notably with the regarding of the rate with food each time time he pressed the lever by reinforcement the rat learned the instrumental response. Reinforcement can be either positive (reward) or negative (punishment).

Operants are action which animals and human being do like walking, smiling, television etc. The learner has to operate on his environment. The term instrumental process to the fact that the learner has some control over his circumstances. His action is instrumental conditioning involves more activity on the part of the learner than classical conditioning. Generally, behavior directed towards gaining a reward or avoiding a punishment are examples of instrumental action. Intention and achievement are important in this kind of learning.

**Q. Write down the difference between classical conditioning and operant conditioning**

**Ans: Difference between classical conditioning and operant conditioning.**

<b>Classical conditioning</b>	<b>Operant conditioning</b>
1. Response is emitted or not, the UCS will be presented.	1. Response is elicited (the learner does not see the food (stimulus)).
2. The interval between CS and the UCS is rigidly fixed.	2. Time interval depends on the organism's own behavior.
3. The unconditioned stimulus UCS occurs without regard to the subject's behavior.	3. The reward is a conditioning upon the occurrence of response (reinforced by food).
4. Association between (SR) is on the basis of law of contiguity (thing occurring closer in time and space get associated).	4. Association between stimulus response (SR) is on the basis of law of effect (effect of reward and punishment).
5. There is pairing of UCS and CS (response is emitted in the absence of stimulus).	5. No pairing of UCS and CS but pairing of a response and the reinforcing stimulus which follows.
6. Reinforcement comes first as food is presented first to elicit the response. Made by the organisms.	6. Reinforcement is provided after the response is made by the organisms.
7. (UCS) unconditioned stimulus is presented regardless of whether the (CR) conditioned response occurs.	7. Stimulus is presented only if the organism makes the desired response.
8. Stimulus oriented (stimulus is conditioned).	8. Response oriented (response is conditioned).

### **Cognitive Theory of Learning**

In more complex forms of learning; perception and knowledge or cognition process play the vital role. According to cognitive theorists, learning cannot be explained in terms of S-R (stimulus-response) association alone. They propose that a learner forms a cognitive structure in memory which organizes



information into relationships and meanings without any known reinforcement. New associations are formed and new relationships are perceived along events, simply as a result of having experienced these events. Links are made among stimuli, so that-stimulus(S-S) association are learned.

### **Theory of Learning by Insight (Gestalt psychology):**

It was developed by a group of Gestalt psychologists, Kurt Koffka, Wolfgang Kohler and Max Wertheimer who concluded that the individual learns by his ability known as insight and not by blind trial and error. According to them, a person can deduce the solution by insight if he perceives the situation as a whole. The situation viewed as a whole will definitely look different from that viewed through its parts. The whole of an object or situation is not merely the sum total of its part like water is quite different from its elements hydrogen and oxygen. Sum total of the parts may create a new entity which is called as Gestalt. The emergence of a Gestalt, produces in an individual an insight into the problem.

The most famous experiments conducted by Kohler(1887-1967) relation to insight were those conducted with a chimpanzee called Sultan. Some bananas were placed inside the cage of hungry Sultan who was then given two sticks so constructed that they could be fitted together.

The hungry Sultan tried to get the bananas by extending out his hands. Then he took up one of the sticks and tried to pull the bananas, an effort which he kept up for one hour. Then he got tired and started to play with the sticks. Meanwhile, one end of one stick got incidentally fastened into the ring fixed on the end of other stick with the result that both the sticks were joined together. Now Sultan this joined stick to pull in the bananas and succeed.

The Gestalt psychologists made a number of such experiments and concluded that individuals learn by insight which emerges suddenly as a result of perceiving the situation as a whole. Sultan's learning was due to insight developed from his perception of the total situation consisting of the cage, sticks and bananas as a whole.

The Gestalists tried to interpret learning as a purposive, exploratory and creative enterprise instead of trial and error or simple stimulus response mechanism.

### **Characteristics of Learning by Insight:**

1. Insight is sudden.
2. Insight is due to understanding.
3. Insight alters perception.
4. Old objects appear in new patterns and organization due to insight.
5. Higher species of animals including man has more insight than members of lower species.
6. Insight develops usually after some trial and error.
7. Previous experience is of assistance to insight.
8. Maturity also helps insight as shown by the smoother working of insight in older age than in adolescents.
9. If pieces essential for the solution of the puzzle are presented together when perceived, insight comes about earlier.

### **Tolman's Theory of Sign Learning:**

According to Tolman (1930) learning is a total process. It takes place by cognition. Cognition includes concepts like knowledge, thinking, planning, inference and purpose.

The learner through his experience recognize some cues or signs and their meanings in relation to goals. Tolman argued that the organism follows certain signs and clues to reach a goal. It learns its ways by following a sort of mental map and it does not learn only some movements but also their significance

and meanings. Hence, this theory is called sign learning theory.

According to Tolman, during goal directed behavior, cognitive maps are formed which are used to reach the goal. In a typical experiment by investigation in sign learning, a comparison was made between two groups of hungry rats in a maze. In one group, each subject received food each time it ran the maze and steady improvement was noticed. In the other, each subject was given access to the maze without finding a food reward and little improvement occurred in time or error scores.

However, when food was introduced at the tenth trial, performance soon approximated that of the group which had been rewarded continually. Such sudden improvement suggests that the animals had acquired information about the maze which they did not utilize until, after the tenth day it became advantageous for them to do so. The rats had developed a cognitive map of the maze.

**Q. Explain Bandura's cognitive Theory.**

**Answer.**

Just as Tolman believed that rats gather information and form cognitive maps about their environments through exploring, Bandura believes that humans gather information about their environments and behavior of others through observation.

Social cognitive learning results from watching, imitation, and modeling and does not require the observer to perform any observable reward.

Social cognitive theory emphasizes the importance of observation, imitation, and self-reward in the development and learning of social skills, personal interactions, and many other behaviors. Unlike operant and classical conditioning, this theory says that it is not necessary to perform any observable behavior or receive any external to learn.

Bandura believes that four processes—attention, memory, imitation, and motivation—operate during social cognitive learning.

**Social learning: Albert Bandura (principle of limitation)**

There are many forms of learning which cannot be explained by conditioning; we also learn through observation. Albert Bandura and Richard Walters (1963) focused on the highly efficient form of learning known as observational learning or imitation, which is defined as a response that is like the stimulus triggering the response; a person or animal watches or hears another do or say something; then responds in the same way. Bandura maintains that nearly all learning that can take place directly through instrumental learning procedure can also take place through imitation. Many of the nursing skills like giving an injection, making bed, or dressing of a wound are learned by observation. Television can have good as well as food effects. It can enhance prosocial behavior through positive observational learning. Modeling is often the most efficient means of learning complex skills. It is also a valuable therapeutic tool, especially with phobias.

There are two ways that observational learning helps people acquire new behavior. Firstly, it provides information on the how of the behavior; the specific steps by which others are able to perform it. Secondly, it gives evidence of the "doability" of the behavior; the facts that others can do it helps demystify the behavior, makes it less frightening; and encourages the belief that I too can do it.

**Applications of social learning theory to nurse Education**

The nurse student must start her professional role and this can be developed by allowing the student to observe a prestigious staff nurse going about her daily work. The students will observe not only clinical skills but also interactions with patients and other members of the healthcare team, thus learning professional attitudes as well as techniques.

The nurse teacher also acts as a professional model when she is with the students, showing enthusiasm about nursing and the ability to do the job skillfully. It is a useful idea when working with students, so that the weaker ones are working with the more able students and learning by observation.

**Other uses of the social learning theory are –**

- Both children and adults learn a great deal through observation and imitation. Young children learn language, social skills, habits, fears, and many other very day behaviors by observing their parents and other children.
- Many people learn academic, athletic, and musical skills by observing and then imitating a teacher.
- It has an important role in a child's personality development.
- Fearful children become less fearful when they watch other children acting fearlessly in the same situation.

- Demonstration a fearless approach to phobic situation may be useful to motivate a patient's approach to the feared object or situation.
- Modeling is also used in weight reduction and smoking cessation, programs.

### **Humanistic Learning Theory by Abraham Maslow and Carl Rogers**

Humanistic theory is concerned with human growth, individual fulfillment and self-actualization. It is student centered learning. Learner is believed to be self-motivated, self-initiated and self-evaluated. Each individual is viewed as a unique composite of biological, psychological, social, cultural and spiritual factors. Learning focus on self-development and achieving full potential. It is best when it is relevant to the learner. Autonomy and self-determination are important the learner identifies the learning needs and takes the initiative to meet these needs. The learner is thus an active participant and takes responsibility for meeting individual learning needs.

But the theory lacks empirical evidence to support its assumptions. In addition, there is the concern that this approach may lead to the teacher becoming an amateur physiotherapist

#### **Transfer of Learning:**

Transfer of learning or training occurs when learning of one set of material influences the learning of another set of material later. For example, driving a new car. The movements and responses in driving a new car will have similarities and differences when compared to movements and responses in driving the old car. The individual has to adapt his old habits and learn new ones.

#### **Theories of Transfer of Learning**

##### **A. Theory of Identical Elements or Components:**

**As per Thorndike**, the transfer of learning from one situation to another is possible because of identical common elements. For example, in learning cycling and driving a car, the transfer takes place because of the common elements like steering movements, knowledge of the rules of the road and looking ahead. In learning typewriting and piano the transfer takes place on account of the presence of common elements like the use of both hands required for pressing the keys and eye hand coordination.

##### **B. Theory of Generalization by Charles Judd**

As a result of certain experiences, an individual may arrive at conclusions which are transferred between two situations. Examples of conclusions transferred as "If we touch fire, we will get burnt" "unripe fruits are sour".

## Conclusion

Psychoanalyst Sigmund Freud believe that behavior and personality derives from the constant and unique interaction of conflicting awareness: the preconscious, the conscious and the unconscious.

Theories about the unconscious vary widely within psychological circle , from the Freudian view that its a storehouse of socially unacceptable desire, traumatic memories, and painful emotions to cognitive psychologys perspective that the unconscious mind is simply a bundle of cognitive processes that we are not aware of not an entily in itself.

But the truth is that its hard to proe any of these theories. Just as we know that the universe is vast , we know the unconscious mind is powerful. And like our research into space, our knowledge of the unconscious mind is limited by the scientific equipment we have available to observe it. So we end up subscribing to theories we find most usefull.