CHALIMBANA UNIVERSITY

DIRECTORATE OF DISTANCE EDUCATION

PYS 1100: INTRODUCTION TO PSYCHOLOGY

FIRST EDITION 2020

AUTHORS: MOONO MAURICE

CHEWE BWALYA

EDWARD MAKUMBA

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First edition

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ACKNOWLEDGEMENT

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TABLE OF CONTENTS

CONTENTS **PAGE**

MODULE OVERVIEW

Introduction

This course is a compulsory course for all the students who will either major or minor in

Psychology. It gives an overview of specialized courses that you will do later in this course. You are therefore, advised to take this course seriously. I wish you well as you interact with this module.

Rationale

This course introduces to you all the fields of psychology that you will cover in this programme (Bachelor of psychology). Major concepts that you will later interact with in courses you will cover will also be introduced.

Course Aims

The aim of this course is to equip students with an understanding of the origin, development, nature, basic concepts, theoretical and methodological issues in psychology.

Learning Outcomes

By the end of the course, you should be able to;

- analyse origin, development, nature, basic concepts, theoretical and methodological issues in psychology.
- discuss basic human structures and processes in Psychology.
- discuss theories of motivation.
- identify various aspects of abnormal behaviour including causal and therapeutic aspects.
- demonstrate various skills of neuropsychology including diagnosis, treatment, and rehabilitation.
- identify factors and psychological processes that influence individual and group behaviour in workplaces.
- describe the basic psychological concepts and theories
- explain the relevance of psychology to today's world.

Study skills

As an adult learner, your approach to learning will be different to that of your school days you will choose when you want to study. You will have professional and/or personal motivation for doing so and you will most likely be fitting your activities around other professional or domestic responsibilities.

Essentially you will be taking control of your learning environment. As a consequence, you will need to consider performance issues related to time management, goals setting, stress management, etc. perhaps you will also need to reacquaint yourself in areas such as essay planning, coping with examinations and using the internet as a learning source.

Your most significant considerations will be time and space i.e. the time you dedicate to your learning and the environment in which you engage in that learning. It is recommended that you take time now before starting your self-study to familiarise yourself with these issues.
There are a number of excellent resources on the web. A few suggested links are:
http://www.how-to-study.com/ and http://www.ucc.vt.edu/stdysk/stdyhlp.html

Time frame

You are expected to spend at least three terms of your time to study this module. In addition, there shall be arranged contact sessions with lecturers from the University during residential possibly in April, August and December. You are requested to spend your time carefully so that you reap maximum benefits from the course. Listed below are the components of the course, what you have to do and suggestions as to how you should allocate your time to each unit in order that you may complete the course successfully and no time.

Required Resources

Text books and the module.

Need help

In case you have difficulties in studying this module don't hesitate to get in touch with your lecturers. You can contact them during week days from 08:00 t0 17:00 hours. Mr Moono Maurice mmoono.75@gmail.com Tutorial Room 3,. You are also free to utilise the services of the University Library which opens from 08:00 hours to 20:00 hours every working day.

Assessment

Continuous Assessment	50%
One Assignment	25%
One Test	25%
Final Examination	50%
Total	100

REFERENCES

Required Readings

Martin, G.N., Carlson, N.R., & Buskist, W. (2007). Psychology *3*rd ed. Harlow: Pearson

Nolen-Hoesksema, S., Fredrickson, L.B., Loftus, G.R., & Wagenaar, W.A. (2009).

Atkinson &Hilgard's Introduction to Psychology. 15th ed. Wadsworth Cengage Learning: Singapore

Weiten W. (2005) Psychology themes and variations 6th ed. Wadsworth: Belmont

Recommended Readings

Morris C.G. (2002) Psychology an Introduction 11th ed. Prentice Hall

Sdorow M. L, Rickabaugh C.A (2002) Psychology 5th ed. Boston. McGraw-Hill

Zimbardo, P. G, Johnson R.L, Weber A.L. (2002) Psychology: Core Concepts. 4th ed. Pearson

UNIT 1: THE ORIGINS OF PSYCHOLOGY

1.1 Introduction

Welcome to the first unit of this module. In this unit, we are going to explore the history of psychology and its branches. Various schools of thoughts in the study of psychology such as, Structuralism, functionalism, psychoanalysis, behaviorism and humanistic are discussed in details. You are therefore, required to interact with activities in the unit so that you develop deeper understanding of the concepts.

1.2 Learning Outcomes

By the end of this unit, you are expected to;

- discuss the history of Psychology.
- differentiate between pure and applied psychology.
- analyze contribution of different scholars in the field of psychology.

1.3 Time frame

You need about six (6) hours per week interacting with this material.

1.4 Content

- Reasons for studying psychology
- Psychology Emerges as a Separate Discipline
- Structuralism Becomes Psychology's First School of Though
- The Functionalism of William James
- The Emergence of Psychoanalysis
- The Rise of Behaviorism
- The Third Force in Psychology
- Branches of Psychology
- Branches of Pure Psychology
- Branches of Applied Psychology

While the psychology of today reflects the discipline's rich and varied history, the origins of psychology differ significantly from contemporary conceptions of the field. In order to gain a full understanding of psychology, you need to spend some time exploring its history and origins.

How did psychology originate? When did it begin? Who were the people responsible for establishing psychology as a separate science? Psychology has been defined differently by different scholars. Most scholars however, define Psychology as the study of human and animal behavior and their mental processes. How would you define it yourself?

1.5 Why Study Psychology History?

Contemporary psychology is interested in an enormous range of topics, looking at human behavior and mental process from the neural level to the cultural level. Psychologists study human issues that begin before birth and continue until death. By understanding the history of psychology, you can gain a better understanding of how these topics are studied and what we have learned thus far.

From its earliest beginnings, psychology has been faced with a number of questions. The initial question of how to define psychology helped establish it as a science separate from physiology and philosophy.

Additional questions that psychologists have faced throughout history include:

- What topics and issues should psychology be concerned with?
- What research methods should be used to study psychology?
- Should psychologists use research to influence public policy, education, and other aspects of human behavior?
- Is psychology really a science?
- Should psychology focus on observable behaviors, or on internal mental processes?

Which question would you ask about what psychology is?

1.6 The Beginnings of Psychology: Philosophy and Physiology

You must know that while psychology did not emerge as a separate discipline until the late 1800s, its earliest history can be traced back to the time of the early Greeks. During the 17thcentury, the French philosopher Rene Descartes introduced the idea of dualism, which

asserted that the mind and body were two entities that interact to form the human experience. Many other issues still debated by psychologists today, such as the relative contributions of nature vs.
nurture, are rooted in these early philosophical traditions. We are sure that you are familiar with the debate of nature vs. nurture, if you are not take time to read more about it.

Let's now look at what makes psychology different from philosophy? While early philosophers relied on methods such as observation and logic, today's psychologists utilize scientific methodologies to study and draw conclusions about human thought and behavior.

It is important for you to know that Physiology also contributed to psychology's eventual emergence as a scientific discipline. Early physiological research on the brain and behavior had a dramatic impact on psychology, ultimately contributing to applying scientific methodologies to the study of human thought and behavior.

1.7 Psychology Emerges as a Separate Discipline

During the mid-1800s, a German physiologist named Wilhelm Wundt was using scientific research methods to investigate reaction times. His book published in 1874, *Principles of Physiological Psychology*, outlined many of the major connections between the science of physiology and the study of human thought and behavior. He later opened the world's first psychology lab in 1879 at the University of Leipzig. This event is generally considered the official start of psychology as a separate and distinct scientific discipline.

How did Wundt view psychology? He perceived the subject as the study of human consciousness and sought to apply experimental methods to studying internal mental processes. While his use of a process known as *introspection* is seen as unreliable and unscientific today, his early work in psychology helped set the stage for future experimental methods. An estimated 17,000 students attended Wundt's psychology lectures, and hundreds more pursued degrees in psychology and studied in his psychology lab. While his influence dwindled as the field matured, his impact on psychology is unquestionable. You have just read that Wundt used introspection in his studies. What do you think introspection is? Research and write a few notes on it.

We are now going to discuss various schools of thoughts in psychology. As you read through make sure you understand key arguments of each school of thought.

1.8 Structuralism Becomes Psychology's First School of Thought

Edward B. Titchener, one of Wundt's most famous students, found psychology's first major school of thought. According to the structuralisms, human consciousness could be broken down into smaller parts. Using a process known as introspection, trained subjects would attempt to break down their responses and reactions to the most basic sensation and perceptions.

While structuralism is notable for its emphasis on scientific research, its methods were unreliable, limiting, and subjective. When Titchener died in 1927, structuralism essentially died with him.

1.9 The Functionalism of William James

Psychology flourished in America during the mid- to late-1800s. William James emerged as one of the major American psychologists during this period and publishing his classic textbook, *The Principles of Psychology*, established him as the father of American psychology. His book soon became the standard text in psychology and his ideas eventually served as the basis for a new school of thought known as functionalism.

The focus of functionalism was about how behavior actually works to help people live in their environment. Functionalists utilized methods such as direct observation to study the human mind and behavior. Both of these early schools of thought emphasized human consciousness, but their conceptions of it were significantly different. While the structuralists sought to break down mental processes into their smallest parts, the functionalists believed that consciousness existed as a more continuous and changing process. While functionalism quickly faded a separate school of thought, it would go on to influence later psychologists and theories of human thought and behavior.

1.10 The Emergence of Psychoanalysis

Up to this point, early psychology stressed conscious human experience. An Austrian physician named Sigmund Freud changed the face of psychology in a dramatic way, proposing a theory of personality that emphasized the importance of the unconscious mind. Freud's clinical work with patients suffering from hysteria and other ailments led him to believe that early childhood experiences and unconscious impulses contributed to the development of adult personality and behavior.

In his book *The Psychopathology of Everyday Life*, Freud detailed how these unconscious thoughts and impulses are expressed, often through slips of the tongue (known as "Freudian slips") and dreams. According to Freud, psychological disorders are the result of these unconscious conflicts becoming extreme or unbalanced. The psychoanalytic theory proposed by Sigmund Freud had a tremendous impact on 20th-century thought, influencing the mental health field as well as other areas including art, literature, and popular culture. While many of his ideas are viewed with skepticism today, his influence on psychology is undeniable.

1.11 The Rise of Behaviorism

Psychology changed dramatically during the early 20th-century as another school of thought known as behaviorism rose to dominance. Behaviorism was a major change from previous theoretical perspectives, rejecting the emphasis on both the conscious and unconscious mind. Instead, behaviorism strove to make psychology a more scientific discipline by focusing purely on observable behavior.

Behaviorism had its earliest start with the work of a Russian physiologist named Ivan Pavlov. Pavlov's research on the digestive systems of dogs led to his discovery of the classical conditioning process, which proposed that behaviors could be learned via conditioned associations. Pavlov demonstrated that this learning process could be used to make an association between an environmental stimulus and a naturally occurring stimulus.

An American psychologist named John B. Watson soon became one of the strongest advocates of behaviorism. Initially outlining the basic principles of this new school of thought in his 1913

paper *Psychology as the Behaviorist Views It*, Watson later went on to offer a definition in his classic book *Behaviorism* (1924), writing:

"Behaviorism...holds that the subject matter of human psychology is *the behavior of the human being.* Behaviorism claims that consciousness is neither a definite nor a usable concept. The behaviorist, who has been trained always as an experimentalist, holds, further, that belief in the existence of consciousness goes back to the ancient days of superstition and magic."

The impact of behaviorism was enormous, and this school of thought continued to dominate for the next 50 years. Psychologist B.F. Skinner furthered the behaviorist perspective with his concept of operant conditioning, which demonstrated the effect of punishment and reinforcement on behavior.

While behaviorism eventually lost its dominant grip on psychology, the basic principles of behavioral psychology are still widely in use today. Therapeutic techniques such as behavior analysis, behavioral modification, and token economies are often utilized to help children learn new skills and overcome maladaptive behaviors, while conditioning is used in many situations ranging from parenting to education.

1.12 The Third Force in Psychology

While the first half of the twentieth-century was dominated by psychoanalysis and behaviorism, a new school of thought known as humanistic psychology emerged during the second half of the century. Often referred to as the "third force" in psychology, this theoretical perspective emphasized conscious experiences.

American psychologist Carl Rogers is often considered to be one of the founders of this school of thought. While psychoanalysts looked at unconscious impulses and behaviorists focused on environmental causes, Rogers believed strongly in the power of free will and self-determination. Psychologist Abraham Maslow also contributed to humanistic psychology with his famous hierarchy of needs theory of human motivation. This theory suggested that people were motivated by increasingly complex needs. Once the most basic needs are fulfilled, people then become motivated to pursue higher level needs.

Cognitive Psychology

During the 1950s and 1960s, a movement known as the cognitive revolution began to take hold in psychology. During this time, cognitive psychology began to replace psychoanalysis and behaviorism as the dominant approach to the study of psychology. Psychologists were still interested in looking at observable behaviors, but they were also concerned with what was going on inside the mind.

Since that time, cognitive psychology has remained a dominant area of psychology as researchers continue to study things such as perception, memory, decision-making, problemsolving, intelligence, and language. The introduction of brain imaging tools such as MRI and PET scans have helped improve the ability of researchers to more closely study the inner workings of the human brain.

1.13 Psychology Continues to Grow

As you have seen in this brief overview of psychology's history, this discipline has seen dramatic growth and change since its official beginnings in Wundt's lab. The story certainly does not end here. Psychology has continued to evolve since 1960 and new ideas and perspectives have been introduced. Recent research in psychology looks at many aspects of the human experience, from the biological influences on behavior to the impact of social and cultural factors.

Today, the majority of psychologists do not identify themselves with a single school of thought. Instead, they often focus on a particular specialty area or perspective, often drawing on ideas from a range of theoretical backgrounds. This eclectic approach has contributed new ideas and theories that will continue to shape psychology for years to come.

Where Are All the Women in Psychology History?

As you read through any history of psychology, you might be particularly struck by the fact that such texts seem to center almost entirely on the theories and contributions of men. This is not because women had no interest in the field of psychology, but is largely due to the fact that women were excluded from pursuing academic training and practice during the early years of the

field. There are a number of women who made important contributions to the early history of psychology, although their work is sometimes overlooked.

Take note that at some point women also participated in the history of psychology, notable ones are:

Mary Whiton Calkins, who rightfully earned a doctorate degree from Harvard, although the school refused to grant her the degree because she was a woman. She studied with other major thinkers of the day including William James, Josiah Royce, and Hugo Munsterberg. Despite the obstacles she faced, she went on to become the first woman president of the American Psychological Association.

Anna Freud, who made important contributions to the field of psychoanalysis. She described many of the defense mechanisms and is known as the founder of child psychoanalysis. She also had an influence on other psychologists including Erik Erikson.

Mary Ainsworth**,** who was a developmental psychologist who made important contributions to our understanding of attachment. She developed a technique for studying child and caregiver attachments known as the "Strange Situation."

1.14 Branches of Psychology

Like any other discipline that you may know, the subject matter of psychology can also be grouped into different branches for the sake of convenience and specialized study. First we will divide it into two broad categories, namely, pure and applied psychology.

Pure psychology provides the framework and theory. Its contents deal with the formulation of psychological principles and theories. It suggests various methods and techniques for the analysis, assessment modification and improvement of behaviour.

In Applied psychology, the theory generated or discussed through pure psychology finds its practical shape. In applied psychology we discuss ways and means of the application of psychological rules, principles, theories and techniques with reference to the real

practical life situations. Now that you understand the two broad branches of Psychology, we will take you through the details of these branches.

1.14.1 Branches of Pure Psychology

As you read through these branches of Psychology you should also be thinking about the possible types of jobs the people who specialise in these different types of Psychology can do.

General Psychology

This is relatively a large area or field of psychology which deals with fundamental rules, principles and theories of psychology in relation to the study of behaviour of normal adult human beings.

Abnormal Psychology

Abnormal psychology describes and explains the behaviour of abnormal people in relation to their environment. The causes, symptoms and syndromes, descriptions and treatment of the abnormalities of behaviour form the subject matter of this branch.

Social Psychology

Social psychology deal with group behaviour and interrelationships of people. Group dynamics, likes and dislikes, interests and attitudes, social distance and prejudices of the people in their personal and social relationships form the subject matter of this branch.

Experimental Psychology

Experimental Psychology describes and explains ways and the means of carrying out psychological experiments following scientific methods controlled in laboratory

situations for the study of mental processes and behavior. It picks up animals, birds and human beings as subjects for experiments.

Physiological Psychology

Physiology psychology describes and explains the biological and physiological basis for behaviour. This is the study of the internal environment and physiological structure of the body, particularly the brain, nervous system and functioning of the glands in relations to the, cognitive and affective behaviour of the human beings form part of the subject matter of this branch.

Parapsychology

Parapsychology deals with extra sensory perceptions, cases of rebuilt telepathy and allied problems.

Geo – Psychology

This field of psychology describes and explains the relation of the physical environment particularly wealth, climate, soil landscape with behaviour.

Child/ developmental Psychology

Child Psychology describes and explains the phases and products of the process of growth and development in relation to behaviour of an individual from birth to old age. You have to bear in mind this is the branch of Psychology you will be doing in this course.

1.14.2 Branches of Applied Psychology

Branches of applied psychology include:

Educational Psychology

Educational psychology applies the psychological principles, theories and techniques to human behaviour in educational settings.

Clinical Psychology

Clinical psychology describes and explains the causes of illness or abnormal behaviour of a patient attending the clinic or hospital and suggests individual or group therapy for treatment and effective adjustment of the affected person in society.

Industrial Psychology

This branch of applied psychology tries to seek application of the psychological principles, theories and techniques for the study of human behaviour in relation to industrial environment.

Legal Psychology

Legal psychology tries to study the behaviour of the persons, likes, clients, criminals, and witnesses. It contains the subject matter for improving ways and means of detection of crimes, false witnesses and other complex phenomena.

Military Psychology

This branch of psychology is concerned with the use of psychological principles and techniques in the world of military science.i.e. how to keep morale of the soldiers and citizens high during war time, how to fight the way of propaganda and intelligence services.

Political Psychology

Political Psychology relates itself with the use of psychological principles and techniques in studying politics and deriving gains.

Have you developed interest in any of the branches of psychology you have been reading, if the answer is yes which branch interested you and why?

1.15 Terminologies

1. Introspection: Is the examination of one's own mental and emotional processes.
2. Structuralism: Is the method of introspection and analysis of aspects of human cognition, behavior, culture and experience which focuses on relationships of contrast between elements in a conceptual system or is the doctrine that structure is more important than function

16 Activity

1. Discuss the history of psychology.
2. Explain the following psychology schools of thoughts; behaviourism, functionalism, cognitive and psychoanalysis.
3. Compare and contrast pure and applies psychology.

1.17 Reflection

Which school of thought do you think provides a logical explanation of behavior? Justify your answer.

1.18 Summary

In this unit you have learnt the meaning of psychology and its goals, pure and applied branches of Psychology have also been discussed. We are sure with this background information that you are now ready to venture in the theories of human development.

UNIT 2: BIOLOGICAL BASIS OF BEHAVIOR

2.1 Introduction

In this unit, we will discuss the structure of the neurons and how they relate to behaviour. The nervous system and how it controls behaviour will also be analyzed. We will later take you through the functions of the brain and how different parts of the brain regulate human behaviour.

2.2 Learning Outcomes

By the end of this unit, you are expected to;

- examine the structure of the neuron.
- discuss different parts of the brain how each part regulates human behavior.
- state the function of the central nervous system.

2.3 Time frame

You need about two (2) hours per week interacting with this material.

2.4 Content

- Neurons
- Organization of the nervous system
- Structure and function of the brain

2.5 Neurons

The base of the nervous system is the neuron. Neurons are cells that are specialized for communicating information. They are the basic tissue and element of the nervous system.

Neurons have a basic structure of:

- One *cell body*
- One *axon*
- One or more *dendrites*

The **cell body** (or soma) is the bulbous end of a neuron, containing the cell nucleus. The soma makes use of nutrients to supply energy for neuronal activity.

Axons are organelles that carry information away from the cell body. Axons may be as small as several microns or as long as several meters in giraffes and whales. The axons main job is to send a signal to the dendrites of another neuron, but some say that they may also receive signals in certain situations. Each neuron has only one axon, but the axon may have branches with what are called terminal buttons at its end.

Dendrites are organelles that sense the neurotransmitter secreted by the axon of another neuron. Most neurons have more than one dendrite. Dendrites and axons do not directly touch each other; there is a gap, called a synapse.

The Transmission of the Signal

The transmission of the signal is basically the same in all cells, the signal is sent across the synapse by the axon and the dendrite of the next cell picks up the signal.

Synapse

The synapse is a gap between two cells. Synapse are one way junctions between neurons and other cells. The neurotransmitter is emitted from the axon of one cell and usually goes to the dendrite of the next cell. Sometimes the signal goes to the soma or the axon of the next cell instead of the dendrite (Arnold Wittig 2001).

Neurotransmitter

The terminal button at the end of the axon holds the synaptic vesicles. When the signal reaches the end of the axon the vesicles discharge a chemical called a neurotransmitter. Neurotransmitters are chemicals that are used to relay, amplify and modulate electrical signals between a neuron and another cell. There are approximately 40 to 60 different chemicals that are used as neurotransmitters. The neurotransmitters from the axon fit into receptors of the dendrite on the next neuron. They will then either *excite* the cell or make it fire or *inhibit* it and stop it from doing so. The sum of the excitation and inhibition of the neuron is called the graded

potential. If the graded potential is greater than that cell's threshold then the cell fires, sending the message to the next cell.

Resting Potential

When the cell hasn't fired for a certain amount of time it is considered at its resting potential. The resting potential of a neuron is approx. -70 mV because the membrane surrounding the cell lets in positive potassium ions (K+) and negative chloride ions (Cl-) and keeps out positive sodium ions (Na+). It is easier to fire a cell that is at its resting potential than one that is in the refractory phase.

Action potential

When the graded potential passes the neurons threshold, an action potential takes place. The action potential sends the signal the entire length of the cell and never dies within the cell, which can be referred to as the *all-or-none-principle*. During firing the inside of the cell becomes positive, which is sometimes incorrectly called Depolarization and should be called the raising phase of the action potential. After the action potential hits its peak the cell starts the refractory phase.

Refractory Phase

After the action potential changes the neuron from negative to positive there is a refractory phase where it changes back to negative. At the beginning of this period it is impossible for another signal to be transmitted, this is called *absolute refractory phase*. After the absolute refractory phase is the relative refractory phase where it is possible to send another signal but more excitation than normal is needed.

Signal Strength

For the signal to be passed from one neuron to the next it must have enough energy to break a point called the threshold. Once the threshold is broken the signal is transmitted. The neuron fires at the same strength every time. The strength of a signal is decided by how many different neurons are being fired and at what frequency they are being fired.

Glial cells

The amount of **glial cells** to every neuron in the nervous system is disputed. Glial cells function as support for the neurons; they produce the myelin sheath which surrounds some neurons and also form part of the *blood-brain* barrier. The blood-brain barrier is a structure that prevents certain substances in the bloodstream from reaching the brain. Many axons are sheathed with tubes of *myelin*, which is a fatty material. Myelin is produced by the *glial* cells. The myelin sheaths on axons have gaps, which are called the *nodes of Ranvier*. Myelinated sheaths help transmit information quickly and efficiently.

2.6 Organization of the nervous system

The neurons can all be placed in one of two systems, the central nervous system or the peripheral nervous system.

The Central nervous system

The central nervous system has a fundamental role in the control of behavior. It contains the brain and the spinal cord which are both encased in bone which shows their importance. Both the brain and spinal cord receive signals from the afferent neurons and send signals to muscles and glands through efferent neurons.

The peripheral nervous system

Any part of the nervous system that is not part of the central nervous system is part of the peripheral nervous system. The nerves in the peripheral nervous system are split up into the autonomic and somatic. The somatic connect the central nervous system to sensory organs (such as the eye and ear) and muscles, while the autonomic connect other organs of the body, blood vessels and glands.

The glandular systems

The body has two types of glandular systems: the endocrine, which generally secrete hormones through the bloodstream, and the exocrine which secrete fluids to the outer surfaces of the body, such as sweating.

Exocrine glands

Exocrine glands release their secretions into ducts which in turn release them onto the surface of organs. Examples of exocrine glands are sweat glands, salivary glands, mammary glands, etc. The pancreas is both an exocrine as well as an endocrine gland hence, one should keep that in mind. It secretes digestive enzymes that are released into the digestive system while it also contains the Islets of Langerhans which secrete insulin into the blood.

We are now going to look at the brain structure and functions of the different parts of the brain.

2.7 Structure and function of the brain

The brain is split up into three major layers, the hindbrain is the first, the second is the midbrain, and the forebrain is last.

Hindbrain

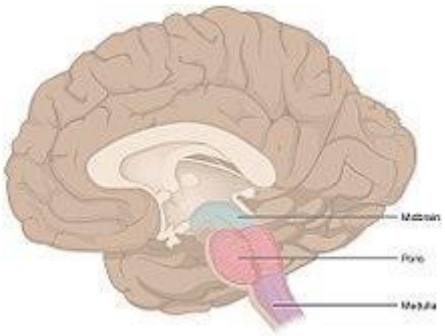


Figure 1: A diagram showing the parts of the brainstem (Wayne, 2010 themes and variations)

The hindbrain is a well-protected central core of the brain and includes the cerebellum, reticular formation, and the brain stem. The cerebellum plays an important role in the integration of sensory perception and motor output. It utilizes constant feedback on body position to fine-tune motor movements. The brain stem contains the pons, and the medulla oblongata. The pons relays sensory information between the cerebellum and cerebrum. The medulla oblongata is the lower portion of the brainstem. It controls autonomic functions such as breathing and vomiting, and

relays nerve signals between the brain and spinal cord. The reticular formation is a part of the brain which is involved in stereotypical actions, such as walking, sleeping, and lying down.

Midbrain

This part of the brain is located between the hindbrain and the forebrain making up part of the brain stem. All sensory and motor information going to and from the fore brain and the spinal cord must pass through the midbrain. It can also be referred to as the relay station.

Forebrain

The anterior most division of the developing vertebrate brain that contains the most complex neural network in the CNS. The forebrain has two major divisions, the lower diencephalon, which contains the thalamus and the hypothalamus, and the upper telencephalon, which contains the cerebrum.

Methods for observing or evaluating brain activity

In the past only two methods of observation were available. The first was observing individuals who have received brain damage and assume that the part of the brain that was damaged controlled the behavior or sense that had changed. The second was connecting electrodes to the outside of someone's head and recording the readings.

Below we have given you a summary of key terms used in the unit.

2.8 Summary of concepts

The concepts explained below will give you a clear understanding of **t**he topic learnt.

Neuroanatomical: the study of the parts and functions of neurons.

Neurons: these are Individual nerve cells.

Dendrites: these are Root like parts of the cell that stretch out from the cell body; grow to make synaptic connections with other neurons.

Cell body/soma: Contains the nucleus and other parts of the cell needed to sustain its life.

Axon: Wirelike structure ending in the terminal buttons that extends from the cell body.

Myelin sheath: A fatty covering around the axon of some neurons that speeds neural impulses.

Terminal buttons: The branched end of the axon that contains neurotransmitters.

Synapse: The space between the terminal buttons of one neuron and the dendrites of the next neuron.

Action potential: The electric message firing of neurons.

All-or-none principle: States that a neuron must either fire completely or not at all; a neuron cannot fire a little or a lot - the impulse is the same every time.

Acetylcholine: Neurotransmitter that controls motor movement; a lack of it is associated with Alzheimer's disease.

Dopamine: Neurotransmitter that controls motor movement and alertness; a lack of it is associated with Parkinson's disease while an overabundance is associated with schizophrenia.

Endorphins: Neurotransmitters that act as pain control; excess or deficits of endorphins are involved in addictions.

Serotonin: Neurotransmitter that act as mood control; a lack of it is associated with clinical depression.

Afferent/sensory neuron: Takes information from the senses to the brain.

Interneuron: Takes the messages from afferent neurons in the brain or spinal cord and sends them elsewhere in the brain or on to efferent neurons.

Efferent/motor neuron; Takes information from the brain to the rest of the body.

Central nervous system (CNS): Consists of our brain and spinal cord (all the nerves housed within bone); transmits information from the rest of the body to the brain.

Peripheral nervous system (PNS): Consists of all the nerves not encased in bone; divided into the somatic and autonomic nervous systems.

Somatic nervous system: Controls our voluntary muscle movements.

Autonomic nervous system: Controls the automatic functions of our body; divided into the sympathetic and parasympathetic nervous systems.

Sympathetic nervous system: Mobilizes our body to respond to stress.

Parasympathetic nervous system: Responsible for slowing down our body after a stress response.

Lesioning: The removal or destruction of part of the brain.

Hindbrain: Consists of structures in the top of the spinal cord; the life support system; controls the basic biological functions that keep us alive; consists of the medulla, pons, and cerebellum.

Medulla: Involved in the control of our blood pressure, heart rate, and breathing; located above the spinal cord; part of the hindbrain.

Pons: Connects the hindbrain with the midbrain and the forebrain; also involved in the control of **facial expressions:** located just above the medulla and toward the front; part of the hindbrain.

Cerebellum: Coordinates some habitual muscle movements; located on the bottom rear of the brain; part of the hindbrain.

Midbrain: Consists of structures just above the spinal cord but still below areas categorized as the forebrain; in general, coordinates simple movements with sensory information; most important part is the reticular formation.

Reticular formation: A netlike collection of cells throughout the midbrain that controls general body arousal and the ability to focus our attention; if this does not function, we fall into a deep coma; part of the midbrain.

Forebrain: Control what we think of as thought and reason; consists of the thalamus, hypothalamus, amygdala, and hippocampus.

Thalamus: Responsible for receiving the sensory signals coming up the spinal cord and sending them to the appropriate areas in the rest of the forebrain; located on top of the brain stem; part of the forebrain.

Hypothalamus: Controls several metabolic functions including body temperature, sexual arousal (libido), hunger, thirst, and the endocrine system; located right next to the thalamus; part of the forebrain.

Amygdala: Vital to our experiences of emotion; located near the end of each hippocampal arm; part of the forebrain.

Hippocampus: Vital to our memory system - memories are processed through this area and then sent to other locations in the cerebral cortex for permanent storage; consists of two arms surrounding the thalamus; part of the forebrain.

Limbic system: Consists of the thalamus, hypothalamus, hippocampus, and amygdala; deals with aspects of emotion and memory.

Cerebral cortex: The gray wrinkled surface of the brain which is actually a thin (1 mm) layer of densely packed neurons; covers the rest of the brain.

Cerebral cortex: The collection of the frontal, parietal, temporal, and occipital lobes.

Association area: Any area of the cerebral cortex that is not associated with receiving sensory information or controlling muscle movements.

Frontal lobes: Large areas of the cerebral cortex located at the top front part of the brain behind the eyes.

Prefrontal cortex: The anterior or front of the frontal lobe that is thought to play a critical role in directing thought processes; said to act as the brain's central executive and is believed to be important in foreseeing consequences, pursuing goals, and maintaining emotional control; researchers believe this part of the brain is responsible for abstract thought and emotional control.

Broca's area: Located in the frontal lobe and is responsible for controlling the muscles involved in producing speech; damage to in might leave us unable to make the muscle movements needed for speech.

Motor cortex: Thin vertical strip at the back of the frontal lobe; sends signals to our muscles, controlling our voluntary movements.

Parietal lobes: Located behind the frontal lobe but still on the top of the brain.

Sensory cortex: Thin vertical strip that receives incoming touch sensations from the rest of our body; located behind the motor cortex in the parietal lobe.

Occipital lobes: Located at the very back of the brain, farthest from the eyes; interpret messages from our eyes in our visual cortex.

Temporal lobes: Process sound sensed by our ears.

Wernicke's area: Located in the temporal lobe and is responsible for interpreting both written and spoken speech; damage to it would affect our ability to understand language.

Endocrine system: System of glands that secrete hormones that affect many different biological processes in our body; controlled by the hypothalamus.

Adrenal glands: Produce adrenaline, which signals the rest of the body to prepare for fight or flight.

Turner's syndrome:born with only a single X chromosome in the spot usually occupied by the twenty-third pair; causes some physical characteristics, lie shortness, webbed necks, and differences in physical sexual development.

Klinefelter's syndrome: People born with an extra X chromosome, resulting in an XXY patter; causes minimal sexual development and personality traits.

Down syndrome: People born with an extra chromosome on the twenty-first pair; causes some physical characteristics like a rounded face, shorter fingers and toes, slanted eyes set far apart, and some degree of mental retardation.

2.9 Terminologies

1. Neurons: Neurons are cells that are specialized for communication information in the body, they are the basic tissue and element of the nervous system.
2. Neuroanatomical: Is the study of parts and functions of neurons.
3. Somatic nervous system: Controls our voluntary muscle movement.

2.10 Activity

1. State the composition and the function of neurons
2. Explain in details the function of the central nervous system
3. Discuss the structure of the brain and clearly show functions of each part.

2.11 Reflection

4. What do you think can happen to a person if the neurons are damaged?

2.12 Summary

In this unit we have discussed the brain structure and the functions of each part. Functions of the central nervous system were also explained. In other word the biological basis of behavior was explored. A summary of the key terms used in the unit were explained for your quick reference

UNIT 3: SENSATION AND PERCEPTION

3.1 Introduction

The topics of sensation and perception are among the oldest and most important in all of psychology. People are equipped with senses such as sight, hearing and taste that help us to take in the world around us. Amazingly, our senses have the ability to convert real-world information into electrical information that can be processed by the brain. The way we interpret this information-- our perceptions-- is what leads to our experiences of the world. In this unit, you will learn about the biological processes of sensation and how these can be combined to create perceptions.

3.2 Learning Outcomes

By the end of this unit, you are expected to;

- explain the processes involved in sensation and perception.
- discuss the structure of the eye and how it relates to sensation.
- analyze color vision theories.
- explain Gestalt principles of perceptional organization.

3.3 Time frame

You need about six (6) hours per week interacting with this material.

3.4 Content

- Vision
- Dark and light adaptation
- Color vision
- Perception
- Gestalt Principles of Perceptual Organization
- Muller-Lyer Illusion

Before discussing each of our extraordinary senses individually, it is necessary to cover some basic concepts that apply to all of them. It is probably best to start with one very important

distinction that can often be confusing: the difference between sensation and perception. The *physical* process during which our sensory organs—those involved with hearing and taste, for example—respond to external stimuli is called sensation. Sensation happens when you eat noodles or feel the wind on your face or hear a car horn honking in the distance. During sensation, our sense organs are engaging in transduction, the conversion of one form of energy into another. Physical energy such as light or a sound wave is converted into a form of energy the brain can understand: electrical stimulation. After our brain receives the electrical signals, we make sense of all this stimulation and begin to appreciate the complex world around us. This *psychological* process—making sense of the stimuli—is called perception. It is during this process that you are able to *identify* a gas leak in your home or a song that reminds you of a specific afternoon spent with friends.

Regardless of whether we are talking about sight or taste or any of the individual senses, there are a number of basic principles that influence the way our sense organs work. The first of these influences is our ability to detect an external stimulus. Each sense organ—our eyes or tongue, for instance—requires a minimal amount of stimulation in order to detect a stimulus. This absolute threshold explains why you don't smell the perfume someone is wearing in a classroom unless they are somewhat close to you.

The way we measure absolute thresholds is by using a method called signal detection. This process involves presenting stimuli of varying intensities to a research participant in order to determine the level at which he or she can reliably detect stimulation in a given sense. During one type of hearing test, for example, a person listens to increasingly louder tones (starting from silence) in an effort to determine the threshold at which he or she begins to hear . Correctly indicating that a sound was heard is called a hit; failing to do so is called a miss. Additionally, indicating that a sound was heard when one wasn't played is called a false alarm, and correctly identifying when a sound wasn't played is a correct rejection.

Through these and other studies, we have been able to gain an understanding of just how remarkable our senses are. For example, the human eye is capable of detecting candlelight from 30 miles away in the dark. We are also capable of hearing the ticking of a watch in a quiet environment from 20 feet away. If you think that's amazing, I encourage you to read more about

the extreme sensory capabilities of nonhuman animals; many animals possess what we would consider super-human abilities.

A similar principle to the absolute threshold discussed above underlies our ability to detect the difference between two stimuli of different intensities. The differential threshold, or just noticeable difference (JND), for each sense has been studied using similar methods to signal detection. To illustrate, find a friend and a few objects of known weight (you'll need objects that weigh 1, 2, 10 and 11 lbs.—or in metric terms: 1, 2, 5 and 5.5 kg). Have your friend hold the lightest object (1 lb. or 1 kg). Then, replace this object with the next heaviest and ask him or her to tell you which one weighs more. Reliably, your friend will say the second object every single time. It's extremely easy to tell the difference when something weighs double what another weighs! However, it is not so easy when the difference is a smaller percentage of the overall weight. It will be much harder for your friend to reliably tell the difference between 10 and 11 lbs. (or 5 versus 5.5 kg) than it is for 1 and 2 lbs. This is phenomenon is called Weber's Law, and it is the idea that bigger stimuli require larger differences to be noticed.

Crossing into the world of perception, it is clear that our experience influences how our brain processes things. You have tasted food that you like and food that you don't like. There are some bands you enjoy and others you can't stand. However, during the time you first eat something or hear a band, you process those stimuli using bottom-up processing. This is when we build up to perception from the individual pieces. Sometimes, though, stimuli we've experienced in our past will influence how we process new ones. This is called top-down processing.

Finally, it should be noted that when we experience a sensory stimulus that doesn't change, we stop paying attention to it. This is why we don't feel the weight of our clothing, hear the hum of a projector in a lecture hall, or see all the tiny scratches on the lenses of our glasses. When a stimulus is constant and unchanging, we experience sensory adaptation. During this process we become less sensitive to that stimulus. A great example of this occurs when we leave the radio on in our car after we park it at home for the night. When we listen to the radio on the way home from work the volume seems reasonable. However, the next morning when we start the car, we might be startled by how loud the radio is. We don't remember it being that loud last night. What happened? What happened is that we adapted to the constant stimulus of the radio volume over

the course of the previous day. This required us to continue to turn up the volume of the radio to combat the constantly decreasing sensitivity. However, after a number of hours away from that constant stimulus, the volume that was once reasonable is entirely too loud. We are no longer adapted to that stimulus!

Now that we have introduced some basic sensory principles, let us take on each one of our fascinating senses individually.

3.5 Vision

How vision works

Vision is a tricky matter. When we see a pizza, a feather, or a hammer, we are actually seeing light bounce off that object and into our eye. Light enters the eye through the pupil, a tiny opening behind the cornea. The pupil regulates the amount of light entering the eye by contracting (getting smaller) in bright light and dilating (getting larger) in dimmer light. Once past the pupil, light passes through the lens, which focuses an image on a thin layer of cells in the back of the eye, called the retina.

Because we have two eyes in different locations, the image focused on each retina is from a slightly different angle (binocular disparity), providing us with our perception of 3D space (binocular vision). You can appreciate this by holding a pen in your hand, extending your arm in front of your face, and looking at the pen while closing each eye in turn. Pay attention to the apparent position of the pen relative to objects in the background. Depending on which eye is open, the pen appears to jump back and forth! This is how video game manufacturers create the perception of 3D without special glasses; two slightly different images are presented on top of one another

Look at the structure of the eye.

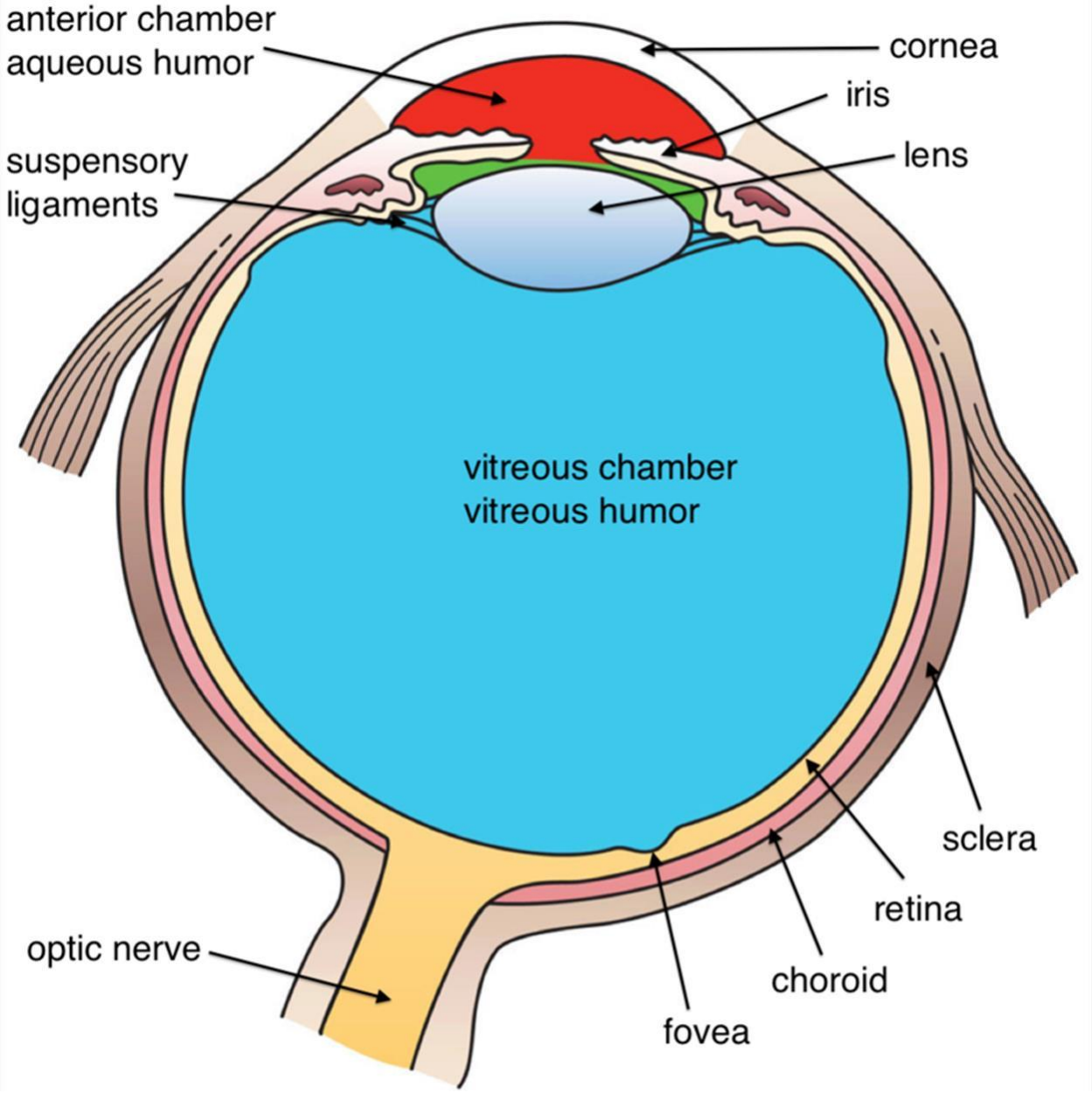


Figure 2. Diagram of the human eye. Notice the Retina, labeled here: this is the location of the Cones and Rods in the eye. (Wayn, 2010 Themes and Variation)

It is in the retina that light is transduced, or converted into electrical signals, by specialized cells called photoreceptors. The retina contains two main kinds of photoreceptors: rods and cones.

Rods are primarily responsible for our ability to see in dim light conditions, such as during the night. Cones, on the other hand, provide us with the ability to see color and fine detail when the light is brighter. Rods and cones differ in their distribution across the retina, with the highest concentration of cones found in the fovea (the central region of focus), and rods dominating the periphery (see Figure 2). The difference in distribution can explain why looking directly at a dim star in the sky makes it seem to disappear; there aren't enough rods to process the dim light!

Next, the electrical signal is sent through a layer of cells in the retina, eventually traveling down the optic nerve. After passing through the thalamus, this signal makes it to the primary visual cortex, where information about light orientation and movement begin to come together (Hubel & Wiesel, 1962). Information is then sent to a variety of different areas of the cortex for more complex processing. Some of these cortical regions are fairly specialized—for example, for processing faces (fusiform face area) and body parts (extrastriate body area). Damage to these areas of the cortex can potentially result in a specific kind of agnosia, whereby a person loses the ability to perceive visual stimuli. A great example of this is illustrated in the writing of famous neurologist Dr. Oliver Sacks; he experienced *prosopagnosia*, the inability to recognize faces. These specialized regions for visual recognition comprise the ventral pathway (also called the "what" pathway). Other areas involved in processing location and movement make up the dorsal pathway (also called the "where" pathway). Together, these pathways process a large amount of information about visual stimuli (Goodale & Milner, 1992). Phenomena we often refer to as optical illusions provide misleading information to these "higher" areas of visual processing (see Additional Resources for websites containing amazing optical illusions).

3.6 Dark and light adaptation

Humans have the ability to adapt to changes in light conditions. As mentioned before, rods are primarily involved in our ability to see in dim light. They are the photoreceptors responsible for allowing us to see in a dark room. You might notice that this night vision ability takes around 10 minutes to turn on, a process called dark adaptation. This is because our rods become bleached in normal light conditions and require time to recover. We experience the opposite effect when we leave a dark movie theatre and head out into the afternoon sun. During light adaptation, a large number of rods and cones are bleached at once, causing us to be blinded for a few seconds. Light

adaptation happens almost instantly compared with dark adaptation. Interestingly, some people think pirates wore a patch over one eye in order to keep it adapted to the dark while the other was adapted to the light. If you want to turn on a light without losing your night vision, don't worry about wearing an eye patch, just use a red light; this wavelength doesn't bleach your rods.

3.8 Color vision

Stare at the center of the Zambian flag printed in any book for fifteen seconds. Then, shift your eyes away to a white wall or blank piece of paper. You should see an "after image" in a different color scheme.

Our cones allow us to see details in normal light conditions, as well as color. We have cones that respond *preferentially*, not exclusively, for red, green and blue (Svaetichin, 1955). This trichromatic theory is not new; it dates back to the early 19th century (Young, 1802; Von Helmholtz, 1867). This theory, however, does not explain the odd effect that occurs when we look at a white wall after staring at a picture for around 30 seconds. Try this: stare at the image of the flag again from whatever source for 30 seconds and then immediately look at a sheet of white paper or a wall. According to the trichromatic theory of color vision, you should see white when you do that. Is that what you experienced? As you can see, the trichromatic theory doesn't explain the *afterimage* you just witnessed. This is where the opponent-process theory comes in (Hering, 1920). This theory states that our cones send information to *retinal ganglion cells* that respond to *pairs* of colors (red-green, blue-yellow, black-white). These specialized cells take information from the cones and compute the difference between the two colors—a process that explains why we cannot see reddish-green or bluish-yellow, as well as why we see afterimages. Color blindness can result from issues with the cones or retinal ganglion cells involved in color vision.

3.9 Perception

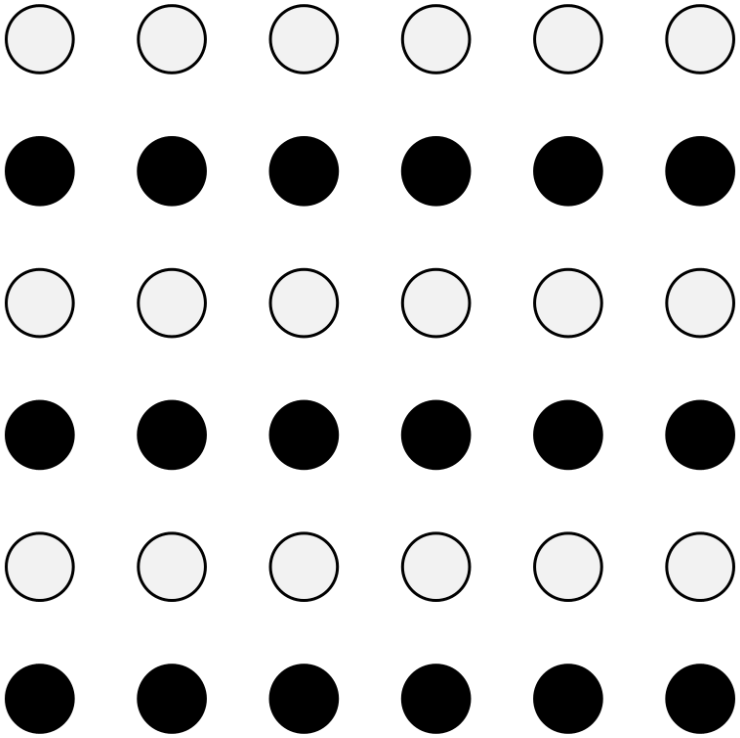
Much of our understanding of how and why we perceive things comes from Gestalt psychology

For example - one of the most well-known Gestalt principles is the Phi Phenomenon, which is the illusion of movement from presenting stimuli in rapid succession. When you see a cartoon or running Christmas lights, you see movement (although none actually exists) because of this principle.

3.10 Gestalt Principles of Perceptual Organization

Let's begin with **1. Similarity**

Figure 3: Gestalt principles illustrations (Source, Douglas, 2008; Essentials of Psychology)



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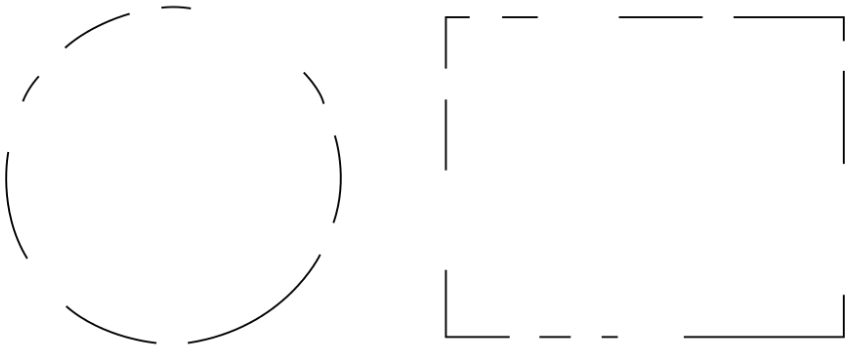
Similarity is a fundamental Gestalt principle. People give preference to simple, understandable and orderly things. Instinctively we mark them as “safe” and “not-challenging”, as they require less time and efforts be understood.

Coming into contact with complex forms, we try to reorganize them using simple components, or a simple whole.

2. Closure



Closure connects simple parts to create a whole. Like glue that sticks elements together, our eyes just add lacking information to create a cohesive object.

Make sure your design provides enough information to a potential visitor.

3. Symmetry

Individuals perceive visual things like pictures, shapes, and letters as a whole, even if they are incomplete. Symmetry gives the feeling of order that we look for.

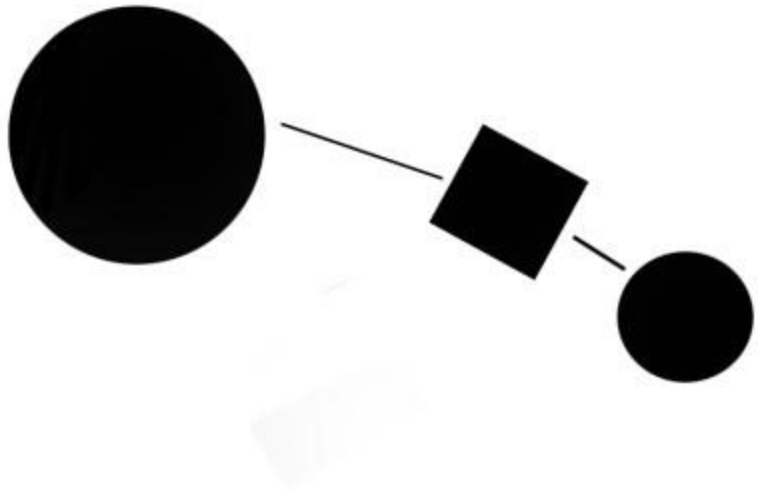
This drives us to look for balance in compositions, though it doesn't have to be symmetrical to have balance.

4. Figure/Ground

This principle covers the relationships between positive elements and negative space. Our eyes isolate whole figures from their backgrounds in order to understand them.

5. Uniform Connectedness

Lines between elements on the picture below make us think they are somehow connected.

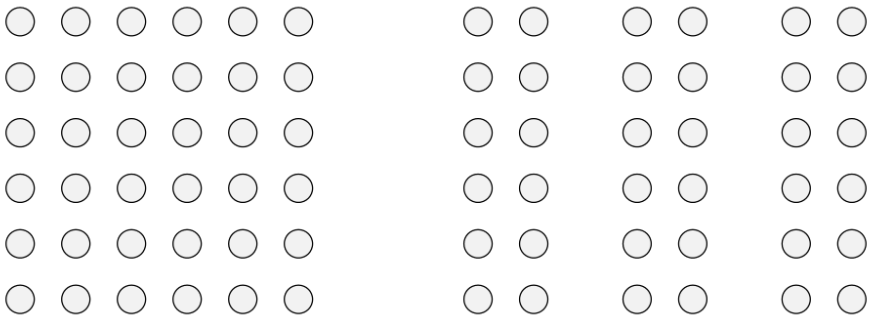


6. Common Regions

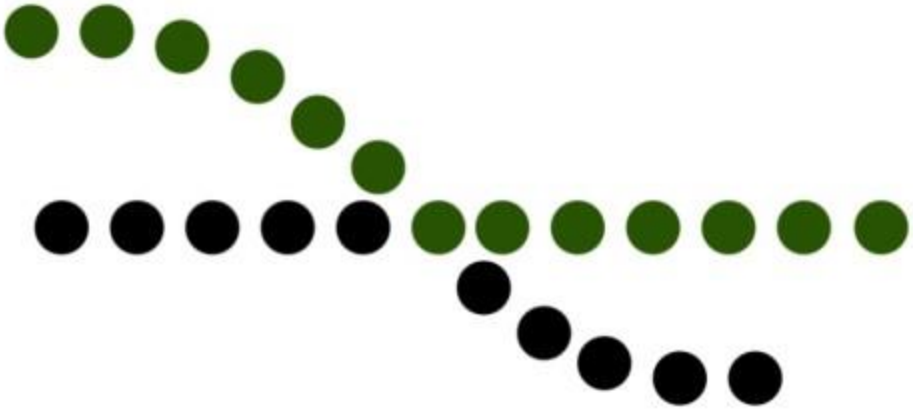
Another way to demonstrate connection between elements is by separating them. Every element in the separated region will be perceived as a part of a whole.

7. Proximity

It states that when a person perceives various objects, they are seen as a group.



8. Continuity



If there is any intersection between elements, we perceive them as two single uninterrupted lines.

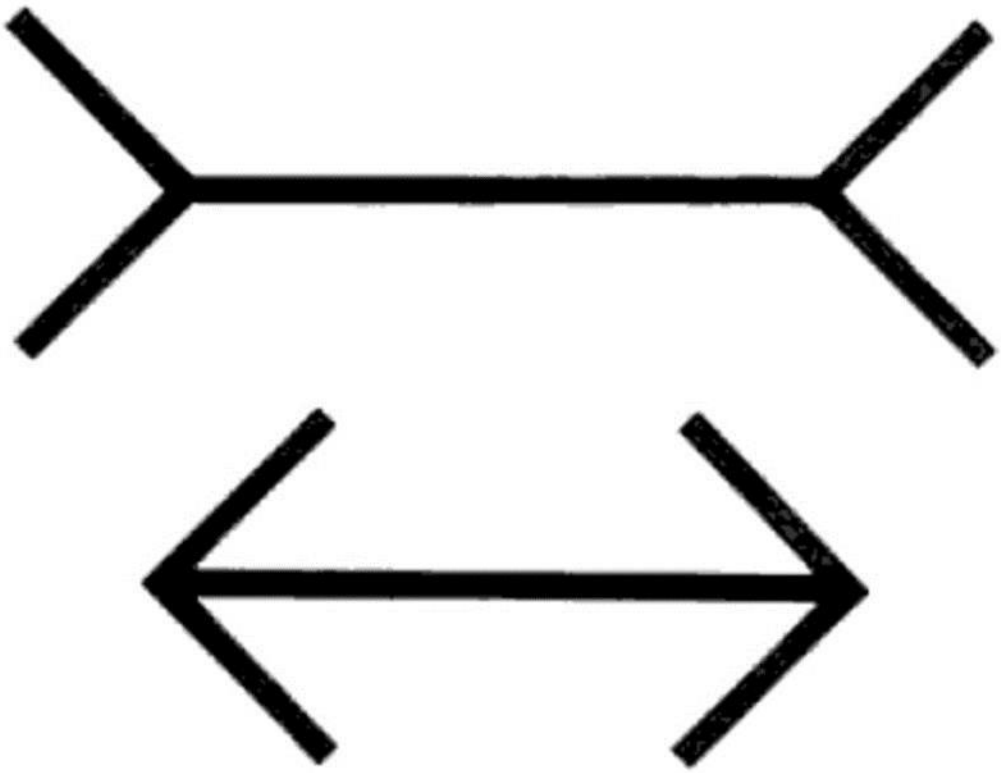
9. Common Fate

Regardless of how far apart elements are placed or how different they appear to be, if they are seen moving together they will be perceived as related objects.

3.11 Muller-Lyer Illusion

The Muller-Lyer illusion is a well-known optical illusion in which two lines of the same length appear to be of different lengths. The illusion was first created by a German psychologist named Franz Carl Muller-Lyer in 1889.

What Do You See?



In the image above, which line appears the longest? For most people, the line with the fins of the arrow protruding outward appears to be the longest while the line with the arrow fins pointing inwards appears shorter. While your eyes might tell you that line in the middle is the longest, the shafts of both lines are exactly the same length.

First discovered in 1889 by F.C. Muller-Lyer, the illusion has become the subject of considerable interest and different theories have emerged to explain the phenomenon.

How Does It Work?

Optical illusions can be fun and interesting but they also serve as an import0ant tool for researchers. By looking at how we perceive these illusions, we can learn more about how the brain and perceptual process work. However, experts do not always agree on exactly what causes optical illusions, as is the case with the Muller-Lyer illusion.

3.12 Terminologies

1. Law of proximity: States that when a person perceives various objects that are close to each other, they are seen as a group.
2. Muller-Lyer illusion: Is an optical illusion in which two lines of the same length appear to be of different lengths.

3.13 Activity

1. Discuss the processes of sensation and perception.
2. What is psychophysics?
3. Write the functions of all parts of the eye.
4. Examine colour vision theories.
5. Explain various gestalt principles.

3.14 Reflection

6. What you think are the causes of illusions?

3.15 Summary

In this unit, we have discussed the various processes involved in sensation and perception. Concepts such as psychophysics and thresholds were also explained. We later looked at the structure of the eye and the colour vision theories. The Gestalt principles of perceptual organization were also explained.

UNIT 4: MOTIVATION AND EMOTION

4.1 Introduction

In this section, we will examine motives, motivation, and some related theoretical perspectives.

Then, we'll look at Emotions, some of the components or elements to emotions, and some theoretical perspectives.

Motivation has been generally defined as an internal process that activates guides and maintains behaviour over time (Durojaiye, 1990). With respect to academic environments, you need to know that the general goal behind motivation strategies is to increase student academic performance by increasing their motivation to learn. While many studies conducted in the area of motivation have indicated that motivation alone is not sufficient to increase academic performance, motivation has been consistently a necessary component in any formula for achievement (Aderman&Maehr, 1994). Both behaviourist and cognitive psychologists agree that motivation is essential for learning. Yet how to motivate learners in the classroom continues to be one of the puzzling problems confronting the educators. You are therefore, requested to pay particular attention to this unit.

4.2 Learning Outcomes

By the end of this unit, you are expected to;

- explain two types of motivation.
- discuss theories of motivation.
- differentiate internal and external locus of control.
- define Extrinsic and intrinsic motivation.
- examine components of emotions.
- explain theories of emotion.
- identify universal expression of emotions.

4.3 Time frame

You need about six (6) hours per week interacting with this material.

4.4 Content

- Motivation
- Intrinsic Motivation
- Extrinsic Motivation
- Theoretical Perspectives of motivation
- Instinct Theory of Motivation
- Incentive Theory of Motivation
- Drive Theory of Motivation
- Arousal Theory of Motivation
- Maslow's Need Hierarchy
- Attribution Theory
- Locus of control
- Achievement Motivation
- Emotions
- Components of Emotions
- Overview of the 6 Major Theories of Emotion
- Evolutionary Theory of Emotion
- The James-Lange Theory of Emotion
- The Cannon-Bard Theory of Emotion
- Schachter-Singer Theory
- Cognitive Appraisal Theory
- Facial-Feedback Theory of Emotion
- The Universal Expression of Emotion
- Cultural Variations in Emotional Expression

4.5 Intrinsic Motivation

The first type of motivation we will discuss is intrinsic motivation. According to Tuckman & Monetti (2011) Intrinsic motivation refers to motivation that is driven by an interest or enjoyment in the task itself and exists within the individual rather than lying on any external pressure. Research conducted by Slavin (2009) indicates that intrinsic motivation declines from elementary school through secondary school. Lynch &Cicchetti (1997) proposed that the possible explanation for this decline in motivation is due to lack of regular contacts with the

teachers. These research findings make it inevitable for teachers to find ways and means of making their pupils to learn.

4.6 Extrinsic Motivation

Extrinsic motivation on the other hand is where a pupil engages in a behaviour believed to be instrumental to some consequence (Tuckman & Monnetti, 2011). In other words, extrinsic motivation comes into play when a student is compelled to do something or act in a certain way because of factors external to him/ her. These factors may include rewards such as money, grades or punishment. A learner who is extrinsically motivated is doing something not because of love or enjoyment of doing that activity but because of the rewards that will accompany the activity (Woolfolk, 2008). I hope you are able to recall when your teacher applied this type of motivation while you were at secondary school. Think of what could be demerits of this type of motivation.

You must be extremely careful in the way you administer extrinsic motivation because, extrinsic motivation is not sustainable. For instance, as soon as the teacher withdraws the punishment or reward, the motivation can disappear. In some situations, when you motivate your students extrinsically, you get diminishing returns that is if the punishment or the reward that are sustaining a certain behaviour stay at the same level, motivation slowly drops. To get same motivation next time may require a bigger reward (Woolfolk, 2008).

We hope the above information gives you a clear understanding that extrinsic motivation must be used to the minimum and in justifiable situations because it hates or hinders intrinsic motivation, punishing or rewarding a pupil for doing something removes innate desire to do it (Slavin, 2009). This view is in agreement with the social psychologist research which indicated that extrinsic reward lead to over justification and subsequent reduction in intrinsic motivation (Santrock, 2008).

The most straight forward conclusion of research from the past two decades is that educators must promote intrinsic motivation because it is sustainable, while the promotion of extrinsic motivation is likely to have the precisely the opposite impact that we want to have on pupils achievement.

4.7 Reflection

Do you agree with the assertion that educators should concentrate on intrinsic motivation because it is said to be sustainable?

4.8 Theoretical Perspectives of motivation

4.8.1 Instinct Theory of Motivation

According to instinct theories, people are motivated to behave in certain ways because they are evolutionarily programmed to do so. An example of this in the animal world is seasonal migration. These animals do not learn to do this, it is instead an inborn pattern of behavior. Instincts motivation some species to migrate at certain times each year.

William James created a list of human instincts that included such things as attachment, play, shame, anger, fear, shyness, modesty, and love. The main problem with this theory is that it did not really explain behavior, it just described it.

By the 1920s, instinct theories were pushed aside in favor of other motivational theories, but contemporary evolutionary psychologists still study the influence of genetics and heredity on human behavior.

4.8.2 Incentive Theory of Motivation

The incentive theory suggests that people are motivated to do things because of external rewards. For example, you might be motivated to go to work each day for the monetary reward of being paid. Behavioral learning concepts such as association and reinforcement play an important role in this theory of motivation.

This theory shares some similarities with the behaviorist concept of operant conditioning. In operant conditioning, behaviors are learned by forming associations with outcomes. Reinforcement strengthens a behavior while punishment weakens it.

While incentive theory is similar, it instead proposes that people intentionally pursue certain courses of action in order to gain rewards. The greater the perceived rewards, the more strongly people are motivated to pursue those reinforcements.

4.8.3 Drive Theory of Motivation

According to the drive theory of motivation, people are motivated to take certain actions in order to reduce the internal tension that is caused by unmet needs. For example, you might be motivated to drink a glass of water in order to reduce the internal state of thirst.

This theory is useful in explaining behaviors that have a strong biological component, such as hunger or thirst. The problem with the drive theory of motivation is that these behaviors are not always motivated purely by physiological needs. For example, people often eat even when they are not really hungry.

4.8.4 Arousal Theory of Motivation

The arousal theory of motivation suggests that people take certain actions to either decrease or increase levels of arousal.

When arousal levels get too low, for example, a person might watch an exciting movie or go for a jog. When arousal levels get too high, on the other hand, a person would probably look for ways to relax such as meditating or reading a book.

According to this theory, we are motivated to maintain an optimal level of arousal, although this level can vary based on the individual or the situation.

4.8.5 Maslow's Need Hierarchy

This Humanistic perspective is a blend of biological and social needs and is a sweeping overview of human motivation. Because Maslow believed that all needs vary in strength, he arranged them in a pyramidal form to indicate which have more strength. The most basic needs (like shelter and food) are vital to daily survival, and are at the bottom, while needs that are less important to staying alive are higher on the pyramid.

We may define the Need Hierarchy as - a systematic arrangement of needs according to priority, which assumes that basic needs must be met before less basic needs are aroused. Thus, like stage theories, we must meet one need before we move on to the next.

Levels:

1) Physiological - these include the need for food, water, and other vital components of life. If these needs are not met, the organism can't survive. Thus, these are the most basic and important.

2) Safety and security - these needs refer more to the long term survival than day to day needs. Humans tend to seek out order and have a desire to live in a world that is not filled with chaos and danger. As a result, they seek out stable lives with careers, homes, insurance, etc.

3) Belongingness and love - after obtaining a safe environment to live and establishing some long term plans, people seek out love and affection from family members, friends, and lovers.

4) esteem - at this level, people become concerned with self-esteem which may be based on achievements that they earn, recognition from others for jobs they do, etc.

5) Cognitive - needs at this level are based on acquiring knowledge and understanding of the world, people, behavior, etc. If you are in college to learn (not simply to get a degree) then you are attempting to fulfill your cognitive needs.

6) Aesthetic - aesthetic needs include beauty and order in life. Getting your life in order may provide a sense of comfort that people often lack. In addition, spending time finding and observing beauty in the world becomes an option and a desire as people do not have to struggle and fight to stay alive. Remember the episode of Star Trek: The Next Generation in which people from our century who had been frozen are found and thawed? These people could not understand that money was no longer important, that starvation had been abolished on Earth, and that people now had the opportunity and will to better themselves through learning about art, music, etc. Picard was preaching the aesthetic level of Maslow's hierarchy.

7) Self-actualization - this is the highest and most difficult level to reach. In fact, according to Maslow, very few people actually reach this level. Self-actualization is the need to fulfill one's own potential. As Maslow stated, "What a man can be, he must be." Interestingly, Maslow

indicated that people will be frustrated if they can't pursue their true loves and talents. For example, if a person has a talent for painting, but they become a doctor, they will be forever frustrated because the need for self-actualization will be hindered. Do you agree with the arguments of this theory? If you don't highlight areas of weaknesses.

4.8.6 Attribution Theory

We will now take you through attribution theory. Attribution is a concept found in the field of social psychology which refers to how individuals explain causes of behaviour and events. This theory was first proposed by Fritz Heider and it was further developed by others such as Harold Kelly and Bernard Weiner (Kassin, 2008), Slavin, (2009, p.30) defines attribution theory as "a theory of motivation that focuses on how people explain the causes of their own successes and failures". Attribution theory is perhaps the most influential contemporary theory with implications for academic motivation. It combines both cognitive and self-efficacy theories in the sense that learner's current self-perception will strongly influence the ways in which they will interpret the success or failure on their current effort and hence their future tendency to perform these same behaviours. There are three types of attributions namely, explanatory, predictive and interpersonal.

In everyday life we hear people giving different explanations about how things have happened in a certain way. Generally, People tend to create explanatory attributions to understand the world and to find reasons for a particular event. Explanatory attribution plays a pivotal role in understanding what is happening around us. For example, Peter's bicycle tire got punctured. Peter will make attributions by reasoning that it was the hole on the road that made the puncture. This tire puncture might be due to Peter's rough riding habit but by making attributions to the poor road condition, Peter has successfully made sense of this unfortunate event. Without the attributional explanations, Peter will be very embarrassed and discomforted to believe that he caused the puncture. In your own words explain what you understand by the term attribution.

(Hewstone, 1983).

Attributions not only explain events but also predict future events. People want to understand

Why the event happened, so that they prevent it from happening again. Once people know why the event happened, their future is more predictable (Hewstone, 1983).

Interpersonal attributions happen when the causes of events involve two or more people. An individual will always want to present himself or herself in the most positive light in interpersonal attributions. For instance, Jane and her boy friend had a quarrel. When Jane explains her situation to her friends, she will say she tried everything to avoid a quarrel but she will blame her boy friend that he is one who was wrong. This way, Jane is seen as innocent to her friends whereas her boyfriend is seen as the one who started it all (Hewstone, 1983).

There are four main attribution theories, these are: the common sense by Fritz Heider, correspondence influence by Edward Jones and Keith Davis, Covariation Model by Harold Kelly and the three dimensional model by Bernard Weiner (Munton, 1999). The most influential theory for our academic purposes is Weiner's model. Therefore, this unit will focus on Weiner's model and its educational implications.

Bernard Weiner of the University of California in Los Angeles developed a more comprehensive and extensive attribution model. Weiner suggests that "individuals tend to attribute their success or failure to either internal or external causes and this in turn affect their perception of a similar task undertaken in future" (Child, 2007 p.52). An important assumption of attribution theory is that people will interpret their environment in such a way as to maintain a positive self-image. The basic principle of attribution theory as it applies to motivation is that a person's own perception or attributions for success or failure determine the amount of effort the person will expend on that activity in the future (Weiner,2005).

According to attribution theory, the explanations that people tend to make to explain success or failure can be analysed in terms of three sets of characteristics

1. Internal or external. The cause of success or failure may be internal or external. An individual may succeed or fail because of factors he or she believes have their origin within him or her or because of factors that originate in the environment.

2. Stable or unstable. The cause of success or failure may be either stable or unstable if a person believes the cause is stable, then the outcome is likely to the same when the behaviour is

performed on another occasion. If it is unstable, the outcome is likely to be different on another occasion.

3. Controllable or uncontrollable. The cause of success or failure may be either controllable or uncontrollable. A controllable factor is one which we believe we ourselves can change if we wish to do so. An uncontrollable factor is one that we do not believe we can easily change. It is important to note that this factor is distinct from the previous two categories in the sense that an internal factor can be controlled (we can control our effort by trying harder) or uncontrollable (most people cannot change their easily their basic intellectual ability or change from being an introvert to being an extrovert). In the same manner, an external factor can be controllable (a person failing a difficult course could succeed by taking an easier course) or uncontrollable (if calculus is difficult because it is abstract, it will still be abstract no matter what happens (Tuckman and Monetti, 2011).

Let us now discuss four factors related to attribution theory that influence motivation in education these are:

1. Ability. It is a relatively internal and stable factor over which the learner does not exercise much direct control.

2. Task difficulty. It is an external and stable factor that is largely beyond the learner's control.

3. Effort. It is an internal and unstable factor over which the learner can exercises control.

4. Luck. It is an external and unstable factor over which the learner exercises very little control (Slavin, 2009).

The following are the educational implications of attribution theory

1. Learners who learns to attribute failures to a lack of ability in a particular subject area is unlikely to continue to be motivated to achieve in that subject in future. Therefore teachers need to remember the responsibility they have in shaping students' attributions (Covington, 1992).

2. Teachers can educate parents about attributions because parents provide feedback and make comments to their children about performance on academic work (Slavin, 2009).

3. Educators should be aware that students will do well if they attribute their academic success to internal and unstable factors which they have control like effort.

4. In order for learners to persist at academic tasks, we (teachers and parents) should help them believe that they are competent and that occasional imperfection or failures are the result of some other factors such as bad luck or lack of sufficient effort that need to be present on future occasions (Graham,1997).

5. Competitive grading and evaluation systems should be discouraged as is likely to impair the learning of many pupils. Competition will encourage pupils to persist only to the extent that they will believe that additional effort will enable them to succeed within the competitive atmosphere. If success in competition is completely beyond a pupils' control, no matter how hard he/ she tries, another more competent and equally energetic competitor is likely to win, this may discourage the pupil (Covintone, 1992).

6. In addition, it is possible to reinforce effort attribution and conduct training programmes designed to promote attributions that are likely to lead to higher levels of motivation and productivity.

Attribution theory has been criticized as being mechanistic and reductionist for assuming that people are rational, logical and systematic thinkers.

It also fails to address the social, cultural and historical factors that shape attributions of cause.

The linguistic categorization theory criticizes the attribution theory in the sense that it doesn't for example demonstrate how language influences our attribution style (Munton, 1999).

We have tried to explain the educational implication of attribution; this is to help you to pay attention to what type of reasons learners use when they fail. You have to constantly remind them on the words that may not motivate them.

4.8.7 Locus of control

Like we said earlier, in life people try to find out sometimes who or what is responsible for the outcome of some events and behaviours in their lifetime. The way on how people perceive who

or what is responsible for any of their outcome is called Locus of Control. Rother (cited in Tuckman & Monetti, 2011) states that all people vary very much with regard to how responsible they feel for their own fate. There are two types of Locus of Control and these are: Internal Locus of Control and External Locus of Control.

People who fall under the internal locus of control category believe that events which happen result mostly from their own actions. Such individuals interpret any outcomes as the consequences of their efforts or their own ability. They have a better control of their behaviours and are more likely to attempt to influence other people. They are more active in seeking information and knowledge concerning their situations.

On the other hand, individuals who fall under external locus of control believe that fate or chance mostly determine events. They are not active in seeking information and knowledge concerning their situations. These believe that events are controlled externally and they have a very strong belief that events are beyond ones control (Santrock, 2008). Do you think these two types of locus of control are learnt or inherited?

The locus of control has a lot of effects on learning. Internally controlled students or learners believe that their behaviour accounts for their academic success or failures. This makes them direct efforts to succeed in academic tasks. Learners or students with an internal sense of control show superior academic performance and are self-motivated. On the other hand, externally controlled students or learners naturally do not work hard. They believe that no matter how hard they work, the outcome will always be determined by luck or chance. Such students or learners do not perform well. They tend to relax and blame slim chances or having no luck for not doing well. Such learners need a lot of help and motivation from the teachers, parents and fellow learners. There is need to encourage them to work hard.

Reflection

What would you do if you find that most of your learners fall under external locus of control?

4.8.8 Achievement Motivation

Over the years, behavioural scientist have observed that some people have an intense need to achieve, others perhaps the majority, do not seem to be as concerned about achievement. This phenomenon fascinated David C. Mc Cleland. McClelland's research led him to believe that the need for achievement is a distinct human motive that can be distinguished from other needs.

In his acquired- needs theory, David McClelland proposed that an individual's specific needs are acquired over time and are shaped by one's life experiences most of these needs can be classified as achievement, affiliation and power. A person' motivation and effectiveness in certain job functions are influenced by these three needs. McClelland's theory sometimes is referred to as the three need theory or as the learnt needs theory.

- The Need for Achievement (n-ach)
- People with a high need for achievement
- Desire to perform challenging tasks
- Like to be in situations where they take personal responsibilities for outcomes Set high goals for themselves and like to receive feedback on how they are doing.
- Are more concerned with personal achievement than with the rewards of success.
- Take the middle ground, preferring a moderate degree of risk because they feel their efforts and abilities will probably influence the outcome.
- Are not gamblers, they prefer to work rather than leave the outcome to chance.
- They avoid low – risk situations because the attained success is not a genuine achievement.
- They prefer to work alone or with other high achievers

Need for affiliation (n-affil)

- People with a high need for affiliation
- Need harmonious relationship with other people and need to feel accepted by other people.
- Desire to exert emotional behavioural control over others.
- Are most found in position of responsibilities.

Need for power (n-pow)

People with a high need for power,

- Want to control and influence others
- Want to win arguments
- Love to persuade and prevail
- Need towards personal status and prestige
- This motivator is typically and not surprising in executives

Implications of Achievement Motivation to Teaching

Teachers should know that learners with different needs are motivated differently.

Pupil with high need for achievement should be given challenging assignments with reachable goals.

- They should be provided frequent feedback.
- Pupil with high need for affiliation work best in groups
- Pupils high in affiliation do not always make good leaders because they always want to be at peace with others, so they cannot take serious decision that may negatively affect others.
- Pupils with high need for power must be given an opportunity to be in leadership.
- A teacher must teach pupils the needs for achievement which may be lacking in their pupils.

4.9 Emotions

We all have emotions, and yet most of us can't explain them. Do people really know why they have them, when they have them, how to control them, etc.? Like so many other aspects of our

psychological makeup, emotions are comprised of several components. We will discuss emotions in terms of the cognitive, physiological, and behavioral components.

4.9.1 Components of Emotions

There are four basic components of emotions:

1. The physiological aspect, which involves active changes in the body physically, e.g, tachycardia, tachypnea, dilated pupils, and many others.
2. The cognitive component, which emphasizes the importance of thoughts, beliefs, and expectations in determining the type and intensity of emotional response.
3. The behavioral component, which involves the various forms of expressions that emotions may take, such as, facial expressions, bodily postures, gestures, and tone of voice which changes with anger, joy, fear, sorrow and others.
4. The subjective experience, which includes elements of pleasure, or displeasure and intensity of feeling. What one individual experiences as intensely as pleasurable may be boring for another.

4.10 Overview of the 6 Major Theories of Emotion What are Emotions?

In psychology, emotion is often defined as a complex state of feeling that results in physical and psychological changes that influence thought and behavior. Emotionality is associated with a range of psychological phenomena, including temperament, personality, mood, and motivation. According to author David G. Meyers, human emotion involves "...physiological arousal, expressive behaviors, and conscious experience."

The major theories of motivation can be grouped into three main categories: physiological, neurological, and cognitive. Physiological theories suggest that responses within the body are responsible for emotions. Neurological theories propose that activity within the brain leads to emotional responses. Finally, cognitive theories argue that thoughts and other mental activity play an essential role in forming emotions.

4.10.1 Evolutionary Theory of Emotion

It was naturalist Charles Darwin who proposed that emotions evolved because they were adaptive and allowed humans and animals to survive and reproduce. Feelings of love and affection lead people to seek mates and reproduce. Feelings of fear compel people to either fight or flee the source of danger.

According to the evolutionary theory of emotion, our emotions exist because they serve an adaptive role. Emotions motivate people to respond quickly to stimuli in the environment, which helps improve the chances of success and survival.

Understanding the emotions of other people and animals also plays a crucial role in safety and survival. If you encounter a hissing, spitting, and clawing animal, chances are you will quickly realize that the animal is frightened or defensive and leave it alone. By being able to interpret correctly the emotional displays of other people and animals, you can respond correctly and avoid danger.

4.10.2 The James-Lange Theory of Emotion

The James-Lange theory is one of the best-known examples of a physiological theory of emotion. Independently proposed by psychologist William James and physiologist Carl Lange, the James-Lange theory of emotion suggests that emotions occur as a result of physiological reactions to events.

This theory suggests that when you see an external stimulus that leads to a physiological reaction. Your emotional reaction is dependent upon how you interpret those physical reactions. For example, suppose you are walking in the woods and you see a grizzly bear. You begin to tremble, and your heart begins to race. The James-Lange theory proposes that you will interpret your physical reactions and conclude that you are frightened ("I am trembling. Therefore, I am afraid"). According to this theory of emotion, you are not trembling because you are frightened. Instead, you feel frightened because you are trembling.

4.10.3 The Cannon-Bard Theory of Emotion

Another well-known physiological theory is the Cannon-Bard theory of emotion. Walter Cannon disagreed with the James-Lange theory of emotion on several different grounds. First, he suggested, people can experience physiological reactions linked to emotions without actually

feeling those emotions. For example, your heart might race because you have been exercising and not because you are afraid.

Cannon also suggested that emotional responses occur much too quickly for them to be simply products of physical states. When you encounter a danger in the environment, you will often feel afraid before you start to experience the physical symptoms associated with fear such as shaking hands, rapid breathing, and a racing heart.

Cannon first proposed his theory in the 1920s and his work was later expanded on by physiologist Philip Bard during the 1930s. According to the Cannon-Bard theory of emotion, we feel emotions and experience physiological reactions such as sweating, trembling, and muscle tension simultaneously.

More specifically, it is suggested that emotions result when the thalamus sends a message to the brain in response to a stimulus, resulting in a physiological reaction. At the same time, the brain also receives signals triggering the emotional experience. Cannon and Bard's theory suggests that the physical and psychological experience of emotion happen at the same time and that one does not cause the other.

4.10.4 Schachter-Singer Theory

Also known as the two-factor theory of emotion, the Schachter-Singer Theory is an example of a cognitive theory of emotion. This theory suggests that the physiological arousal occurs first, and then the individual must identify the reason for this arousal to experience and label it as an emotion. A stimulus leads to a physiological response that is then cognitively interpreted and labeled which results in an emotion.

Schachter and Singer's theory draws on both the James-Lange theory and the Cannon-Bard theory of emotion. Like the James-Lange theory, the Schachter-Singer theory proposes that people do infer emotions based on physiological responses. The critical factor is the situation and the cognitive interpretation that people use to label that emotion.

Like the Cannon-Bard theory, the Schachter-Singer theory also suggests that similar physiological responses can produce varying emotions. For example, if you experience a racing heart and sweating palms during an important math exam, you will probably identify the emotion

as anxiety. If you experience the same physical responses on a date with your significant other, you might interpret those responses as love, affection, or arousal.

4.10.5 Cognitive Appraisal Theory

According to appraisal theories of emotion, thinking must occur first before experiencing emotion. Richard Lazarus was a pioneer in this area of emotion, and this theory is often referred to as the Lazarus theory of emotion.

According to this theory, the sequence of events first involves a stimulus, followed by thought which then leads to the simultaneous experience of a physiological response and the emotion. For example, if you encounter a bear in the woods, you might immediately begin to think that you are in great danger. This then leads to the emotional experience of fear and the physical reactions associated with the fight-or-flight response.

4.10.6 Facial-Feedback Theory of Emotion

The facial-feedback theory of emotions suggests that facial expressions are connected to experiencing emotions. Charles Darwin and William James both noted early on that sometimes physiological responses often had a direct impact on emotion, rather than simply being a consequence of the emotion. Supporters of this theory suggest that emotions are directly tied to changes in facial muscles. For example, people who are forced to smile pleasantly at a social function will have a better time at the event than they would if they had frowned or carried a more neutral facial expression.

4.10.7 The Universal Expression of Emotion

Emotions play an important role in our daily lives. Each and every day we spend a tremendous amount of time witnessing the emotions of others, interpreting what these signals might mean, determining how to respond and deal with our own complex emotional experiences.

Emotions in Psychology and Research

Emotions are also an important topic in psychology and researchers have devoted a great deal of energy toward understanding the purpose of emotions and theories about how and why emotions occur. Researchers have also learned a great deal about the actual expression of emotion.

We express our emotions in a number of different ways including both verbal communication and nonverbal communication. Body language such as a slouched posture or crossed arms can be used to send different emotional signals. One of the most important ways that we express emotion, however, is through facial expressions.

Are Emotional Expressions Universally?

You have probably heard that body language signals and gestures sometimes have different meanings in different cultures, but does the same idea apply to facial expressions as well? Do people in other countries and cultures express emotions in the same way?

In his 1872 book The Expression of the Emotions in Man and Animals, famed naturalist Charles Darwin argued that human expressions of emotion were both innate and universal across cultures. Researcher and emotion expert Paul Eckman has found that, for the most part, the facial expressions used to convey basic emotions tend to be the same across cultures.

While he has found that the human face is capable of creating an astonishing variety of expressions (more than 7,000!), there are six key basic emotions:

1. Happiness
2. Surprise
3. Sadness
4. Anger
5. Disgust
6. Fear

Researchers have shown photographs of people expressing these emotions to individuals from different cultures, and people from all over the world have been able to identify the basic emotions behind these expressions. Eckman believes that not only are these basic emotions probably innate, they are most likely hard-wired in the brain.

4.10.8 Cultural Variations in Emotional Expression

However, there are important cultural differences in how we express emotions. Display rules are the differences in how we manage our facial expressions according to social and cultural expectations. In one classic experiment, researchers watched Japanese and American participants as they viewed grisly images and videos of things such as amputations and surgeries. People from both backgrounds showed similar facial expressions, grimacing and conveying disgust at the gory images.

When a scientist was present in the room as the participants viewed these scenes, however, the Japanese participants masked their feelings and kept neutral facial expressions. Why would the presence of the scientist change how these viewers responded? In Japanese culture, it is considered offensive to reveal negative emotions in the presence of an authority figure. By masking their expressions, the Japanese viewers were adhering to the display rules of their culture.

The ability to express and interpret emotions plays an essential part of our daily lives. While many expressions of emotion are innate, and likely hard-wired in the brain, there are many other factors that influence how we reveal our inner feelings. Social pressures, cultural influences, and past experience can all help shape the expression of emotion.

4.11 Terminologies

1. Intrinsic motivation: Refers to motivation that is driven by interest or enjoyment of doing the task.
2. Extrinsic motivation: Is when a person engages in a behavior believed to be instrumental to some consequences.
3. Emotions: Are defined as a complex state of feeling that results in physical and psychological changes that influence throughout and behavior.

4.12 Activities

1. Evaluate the following theories of emotions; James Lange, the Cannon Bard theory and Schaditer and Singer two factor theory.
2. Examine components of emotions.
3. Discuss the attribution theory and show how it is used in real life situations.

4. Explain the emotions expressed below.

4.13 Reflection

Do you think it is possible to hide your emotions?

4.14 Summary

In this unit, we have discussed theories of motivation and motions. We have also looked at components of emotions and how to identify universal expressions of emotions. We hope you have found this unit very interesting as it relate to our everyday experiences. We will in the next unit look at theories of personality.

UNIT 5: THEORIES OF PERSONALITY

5.1 Introduction

In this unit, we will highlight the six main approaches to the theories of personality. These approaches are: 1. Type Approaches 2. Trait Theory Approaches 3. Type--Trait Approach 4.

Psychodynamic Approach (Psychoanalytic Approach to Personality) 5. Behavioral and Learning Approach 6. The Humanistic Approach.

5.2 Learning outcomes

By the end of this unit, you are expected to;

- analyses various approaches to personality.
- evaluate different personality theories.
- discuss Freud' personality structure.

5.3 Time frame

You need about six (6) hours per week interacting with this material.

5.4 Content

- Type Approaches
- Ernst Kretschmer's Theory
- Sheldon's Classification
- Carlgustou Jung's Classification (1875-1961)
- Two major shortcomings of all simple typologies
- Trait Theory Approaches
- Allport's Trait Theory
- Type-cum-Trait Approach
- Psychodynamic Approach (Psychoanalytic Approach to Personality)
- Sigmund Freud
- Structure of personality
- Behavioural and Learning Approach
- BF Skinner's Behavioural Approach
- Albert Bandura's Learning Approach
- The Humanistic Approach

5.5 Type Approaches

This focuses on people's (character) characteristics like stubbornness, shyness and so forth and how these characteristics are organized into systems.

One of the first 'type' theories that was proposed around 400 BC by Hippocrates, a Greek physician known as the Father of Medicine. He grouped people into four temperament types.

Sanguine—cheerful, vigorous, confidently optimistic

Melancholic—depressed, moron

Choleric—hot tempered

Phlegmatic—slow moving, calm, unexcitable.

Since the time of Hippocrates, other ways of grouping people into types have been tried. The grouping or sets of types or typologies.

A type is simply a class of individuals said to share a common collection of characteristics. For example, introverts could be described as people who share characteristics such as shyness, social withdrawal and a tendency not to talk much, while extroverts share a tendency to be outgoing, friendly and talkative.

5.6 Ernst Kretschmer's Theory

Ernst' Kretschmer is a German psychologist who initiated scientific investigations and attempted to correlate physique and characteristics. He classified individuals into four types, namely pyknic, asthenic, athletic and dysplastic. From his study of mental patients he found that certain body types are associated with some particular types of mental disorders.

a. Pyknic body type:

Such individuals are short, rounded and associated with manic depression, have the personality traits of extroverts.

b. Asthenic body type:

Such individuals are siege and have the personality traits of extroverts. They are associated with schizophrenia.

c. Athletic body type:

Such individuals have strong body built, they are energetic and aggressive, strong, determined, adventurous and balanced. They are normally associated with manic depressive psychosis. **d.**

Dysplastic body types:

Such individuals have un-proportionate body parts and do not belong to any of the three types mentioned above (this disproportion is due to hormonal imbalance). Just as the body is unproportionate, their behaviour and personality are also imbalanced. Though this classification of personality based on the body type has attracted the attention of many psychologists, the theory has been rejected since it was based on mental patients.

5.7 Sheldon's Classification

Sheldon being influenced by Kretschmer's view proposed a new theory of personality correlating temperament and body type. The bodily components are endomorphy, mesomorphy and ectomorphy. The corresponding temperamental dimensions are viscerotonia, somatotonia and cerebrotonia.

a. Endomorphic (visceratonia):

The component refers to the prominence of visceral organs. These individuals are plump, soft, fat and round-sociable, even tempered and relaxed paunch indicates excess viscera as fat.

b. Mesomorphic (somatotonia):

This component refers to the bone and muscle. The athlete is predominantly mesomorphic having wide shoulders, narrow hips and rippling muscles.

c. Ectomorphic (cerebretonia):

This component is based upon delicacy of skin, fine hair and a sonotic narrow system. This person is tall, thin, steep shouldered, shy, fond of solitude and reserved.

5.8 Carlgustou Jung's Classification (1875-1961):

The most famous of all the present day typologies is that of introversion, and extroversion was first described by Carl Jung. CG Jung, a prominent Swiss psychologist was originally a follower of Sigmund Freud, but later developed his own system of analytic psychology. According to Jung the extrovert is outgoing, extravagant, lively and towards direct action. The extrovert reacts positively to different situations and mixes freely with others.

He is talkative and expert on making social contact. He is very generous and outspoken and sometimes more courageous. He always likes outdoor games and does not pay much attention to details. He is always happy, lucky person. Extroverts usually spend a lot of money on others and try to get love and affection of others.

The introvert has the overall opposite behavioural qualities. He tends to withdraw into himself, especially in times of emotional stress and conflict, characteristics of introverts include shyness and preference for working alone. The introvert likes indoor games and engages in reading and writing books all alone in the corners.

He does not like busy (peoples) places. He is not that suggestible as other people are. He has some fixed ideas and thinks a great deal (with) before doing anything. He is very sensitive and does not spend much money on others as extroverts do.

5.9 Two major shortcomings of all simple typologies

a. They put people into extrovert and introvert categories that apply to only a few individuals as with most dimensions of human variations. The graduation forms introversion to extroversion is a continuous one on which people are normally distributed. Most people fall in the middle of the dimension and show both introversion and extroversion to a degree.

b. In their simplicity, typologies ignore one of the most important facts about personality that is multidimensional and consist of many attributes.

c. These shortcomings have been partially overcome, in the work of a famous British psychologist Hans J Eysenck. Eysenck's personality types are defined by three major dimensions.

5.10 Trait Theory Approaches

Traits are considered to be stable and consistent, descriptive attribute of individual. Traits are enduring tendencies to act in particular ways across a range of interaction. The measurable aspects of personality are referred to as personality traits are nothing but qualities found in the individuals behaviour.

The trait theories consider personality to be a collection of such traits. They dissect the personality into some components called traits. Cattell is (the) its principle founder. Traits are propensities to behave in a consistent and distinctive style. Regarding the consistency of traits, Cattle found a distinction between surface traits and source traits.

According to him:

a. The surface traits are the qualities of one's behaviour that are observable directly in action.

b. The source traits (determine the surface trait) on the other hand, are the qualities found in the organism at a deeper level so they cannot be observed directly.

c. The source trait determines the surface trait. Surface traits are not so consistent because they are influenced not only by source traits but also by many other factors operating at a given time.

For example feelings of insecurity is a source trait. It cannot be observed directly unless it expresses through surface traits like restlessness, timidity, high emotionality.

5.11 Allport's Trait Theory

When personality psychologist Gordon Allport systematically leafed through an unabridged dictionary he came up with some 18,000 separated terms that could be used to describe personality. Although he was able to bring down the list to a mere 4,500 descriptions often eliminating synonyms, he was still left with a problem crucial to all trait approaches that is which of these were the most basic.

Allport answered this question by suggesting that there are three basic categories of traits such as cardinal, central and secondary.

A cardinal trait is a single characteristic that directs most of a person's activities, for example, a totally selfless woman might direct all her energy towards humanitarian activities.

Most people, however, do not develop all-encompassing cardinal traits. Instead they possess a handful of central traits. Honesty and sociability are the major characteristics of an individual, they usually numbered from five to ten in any one person.

Finally, secondary traits are characteristics that affect behaviour in fewer situation and are less influential than control or cardinal traits. For example, a preference for ice-cream or a dislike of modern art would be considered a secondary trait.

5.12 Type-cum-Trait Approach

HJ Eysenck identified the major components of personality as a number of personality types. Each type is made up of a set of personality characteristics. For example, people who fit Eysenck's extrovert's type are said to have such characteristics as sociability, liveliness and excitability. Each of these characteristics, according to Eysenck can be broken down into certain habitual response.

Pattern that habitual response patterns can be broken down further into specific responses within specific situations. This progression from broad, global types down to specific situation bound, responses is what makes Eysenck's approach a hierarchical theory.

5.13 Psychodynamic Approach (Psychoanalytic Approach to Personality)

This emphasizes on ongoing interactions among motives, impulses and psychological processes.

5.14 Sigmund Freud

According to psychoanalysts, our behaviour is brought about largely by powerful processes within our personality of which we are not aware. These hidden processes shaped by childhood experiences play an important role in energizing and directing our everyday behaviour.

The most important theories to hold such a view and one of the best known figures in all psychology is Sigmund Freud, an Austrian physician. Freud originated the psychoanalytic theory in the early 1900. Psychoanalytic theory has five major parts.

The motive force:

Basic urge or psychic energy or libidinal energy: Basic goal is to maintain tension-free state or state of satisfaction.

5.15 Structure of personality:

To describe the structure of personality, Freud developed a comprehensive theory that held personality consisted of three separate but interacting components the id, the ego and the superego.

a. Id:

The id, the most primitive part can be thought of as a short of storehouse of biologically based urges. It is the raw unorganized, inherited part of personality whose purpose is to reduce tension created by biological drives, related to hunger, sex, aggression and irrational impulses. The id operates according to the pleasure principle in which the goal is the immediate reduction of tension and the maximization of satisfaction.

Unfortunately for the id but luckily for people and society reality prevents the fulfillment of the demands of the pleasure principle in most cases. Instead, the world produces constraints. We cannot always eat when we are hungry. To account for this fact of life, Freud suggested a second component of personality which he called the ego. The id is usually bridled and managed by the ego.

b. Ego:

The ego consists of elaborate ways of behaving and thinking which constitutes the executive function of the person. The ego delays satisfying id motives by acceptable outlets. It keeps a person working for a living, getting along with people and generally adjusting to reality of life.

It contrasts to the pleasure of seeking nature of id, the ego operates according to reality principle that is the ego tries to satisfy the id's urges for pleasure. Ego makes decisions, contracts action and allows thinking and problem-solving of a higher order than the id achieve. The ego is (called) also the seat of higher cognitive abilities such as intelligence, thoughtfulness. **c. Superego:**

The superego, the final personality structure to be developed represents the rights and wrongs of society as handled down by a person, parents, teachers and other important figures. It becomes a part of personality when children learn right-wrong and continue to develop as people begin to incorporate to their own standards, the broad moral principles of the society in which they live.

The superego actually has two components, the conscience and the ego-ideal. The conscience prevents us from doing morally bad things and the ego-ideal motivates us to do what is morally proper. The superego helps us to control impulses coming from the more virtuous. Although on the surface the superego appears to be opposite of the id, they do not consider the practical realities imposed by society.

Topographical aspect or structure or model:

a. Conscious aspect

b. Unconscious aspect

c. Preconscious aspect.

Freud proposed three levels of consciousness or awareness the conscious, the preconscious and unconscious. At the conscious level, we are aware of certain things around us and of certain thoughts.

At the preconscious level are memories or thoughts that are easily available with a movement of reflection, for example, what he had for breakfast, or our parents first names, the unconscious contain memory, thoughts and motives which we cannot easily call up. All of these; id, the ego and superego include material at all three levels of consciousness.

To Freud, conscious experience is just the bit of the psychological iceberg like the unseen mass of a floating iceberg, the material found in unconscious is very large. Much of people's everyday behaviour is viewed to as being motivated by unconscious forces. Unconscious is a part of the personality of which a person is not aware.

The unconscious contains instinctual drives, infantile wishes, desires, demand and needs that are hidden from the unconscious awareness because of the conflict and pain they can cause us if they are a part of our everyday life. **Psychosexual Development:**

Freud believed that personality develops through a series of stages during childhood. He says that experiencing difficulties during a particular childhood may lead to problems in adult personality. Each stage focuses on a major biological function which Freud assumes to be the focus of pleasure in a given period.

In the first stage of development called the (A) oral stage from birth, 12 to 18 months the infants centre of pleasure is the mouth as the child is interested in sucking, eating, biting, etc. From 12 to 18 months until three years of age where the emphasis is on (B) anal stage or toilet training stage the child enters the anal stage. Here the children derive pleasure from expelling and withholding faeces. At about age 3 the (C) oedipal or phallic stage begins where the child is interested in the Oedipus complex seen around age of 5 or 6, then children move into the (D) latency period

which lasts until adolescence during which sexual concerns are largely unimportant. Then during adolescence to adulthood they enter the final period the (E) genital period which extends until death. In this period there is a re-emergence of sexual interest and establishment of major sexual relationship.

5.14 Behavioral and Learning Approach 5.16 BF Skinner's Behavioral Approach

Behavioral and learning approaches to personality focus on the outer person. To a strict learning theorist, personality is simply the sum of learned responses to the external environment. Internal events such as thought, feelings and motivations are ignored.

Learning theorists say that personality is best understood by looking at the most influential learning theorists. BF Skinner personality is a collection of learned behaviour pattern. Similarities in responses across different situations are caused by similar patterns of reinforcement that have been received in such situations in past.

If I am sociable both at parties and meetings, it is because I have been reinforced previously for displaying social behaviour not because I am fulfilling some unconscious wishes based on experiences during my childhood or because I have an internal trait of sociability.

Theorists like Skinner are interested in modifying behaviour in many ways. Their view is that humans are infinitely changeable if one is able to control and modify the patterns of behaviour. Other theorists would view behaviour as stable and unyielding can be changed and ultimately improved.

5.17 Albert Bandura's Learning Approach

Unlike other learning approaches to personality social cognitive approaches emphasize thoughts, feeling, expectations and values in determining personality.

According to Albert Bandura, one of the main proponents of this point of views, people are able to foresee the possible outcomes of certain behaviours in a given setting without actually having

to carry them out. This takes place mainly through the mechanism of observational learning viewing the actions of others and observing the consequences.

For instance, children who view of the consequences of the model's behaviour are seen to be positive. If on the other hand, the model's aggressive behaviour has resulted in no consequences or negative consequences, children are considerably less likely to act aggressively according to social cognitive approaches. Personality thus develops by repeated observation of the behaviour of others.

Bandura places particular emphasis on the role played by self-efficacy and learned expectation that one is capable of carrying out a behaviour of producing a desired outcome. Self-efficacy underlies people's faith in their ability to carry out a particular behaviour, the greater a person's sense of self-efficacy, the more persistent he or she will be and the more likely it is that the individual will be successful.

Social cognitive approaches are distinctive in their emphasis on the reciprocity between individuals and their environment. Not only is the environment assumed to affect personality but people's behaviour and personalities are assumed to "feedback" and modify the environment which in this affects behaviour in a web of reciprocity.

5. 18 The Humanistic Approach

According to humanistic theories, all of the approaches to personality discussed so far share a fundamental misperception in their view of human nature. Instead of classifying people as controlled by unconscious unseen forces (as do psychoanalytic approaches), a set of stable traits (trait approaches), situational reinforcements and punishments (learning theory) or inherited factors (biological approaches), humanistic approaches to personality emphasizing people's basic goodness and their tendency to grow to higher levels of functioning. It is this conscious, selfmotivated ability to change and improve, along with people's unique creative impulses that make up the core of personality.

The major proponent of the humanistic point of view is Carl Rogers (1971). Rogers suggests that people have a need for positive regard that reflects universal requirements to be loved and

respected. Because others provide this positive regard, we grow dependent on them. We begin to see and judge ourselves through the eyes of other people, relying on their values.

According to Rogers, one outgrowth of placing importance on the opinions of others is that there may be a conflict between people's actual experiences and their self-concepts or selfimpressions. If the discrepancies are major, so are the consequences. But if they are great they will lead to psychological disturbances in daily functioning such as the experience of frequent anxiety.

Rogers suggests that one way of overcoming the discrepancy between experience and selfconcept is through the receipt of unconditional positive regard from others which refers to an attitude of acceptance and respect on the part of an observers, no matter what a person says or does. This acceptance, says Rogers, allows people the opportunity to evolve and grow both cognitively and emotionally and to develop more realistic self-concepts.

To Rogers and other humanistic personality theorists (such as Abraham Maslow) the ultimate goals of personality growth is self-actualization and it is a state of self- fulfillment in which people realize their highest potential, and people who accept reality achieve happiness and fulfillment.

5.19 Terminologies

1. Introverts: Could be described as people who share characteristics such as shyness, social withdraw and tending not to talk too much.
2. Extroverts: Are the opposite of introverts, they are out going, friendly and talkative.
3. Traits are enduring tendencies to act in a particular way across a range of interaction.

5.20 Activities

1. Evaluate different approaches to the study of personality.
2. Define the word personality.

5.21 Summary

In this unit, we have presented the following approaches to personalities; type personality, trait personality, psychodynamic personality, behaviorist and humanistic approaches. We will now discuss abnormal psychology in the next unit.

UNIT 6: UNDERSTANDING ABNORMAL PSYCHOLOGY

6.1 Introduction

Abnormal psychology is a branch of psychology that deals with psychopathology and abnormal behavior, often in a clinical context. The term covers a broad range of disorders, from depression to obsessive-compulsive disorder (OCD) to personality disorders. Counselors, clinical psychologists, and psychotherapists often work directly in this field.

6.2 Learning outcomes

By the end of this unit, you are expected to;

- discuss different perspectives in the study of studying abnormal behavior
- describe various disorders
- explain the diagnosis, treatment of psychological disorders.

6.3 Time frame

You need about four (4) hours per week interacting with this material.

6.4 Content

- Overview of Abnormal Psychology
- Approaches to the Study of Abnormal Psychology
- Disorders

6.5 Overview of Abnormal Psychology

In order to understand abnormal psychology, it's essential to first understand what we mean by the term "abnormal." On the surface, the meaning seems obvious; abnormal indicates something that's outside of the norm.

Many human behaviors can follow what is known as the normal curve. Looking at this bellshaped curve, the majority of individuals are clustered around the highest point of the curve, which is known as the average. People who fall very far at either end of the normal curve might be considered "abnormal."

It's important to note that the distinctions between normal and abnormal are not synonymous with good or bad. Consider a characteristic such as intelligence. A person who falls at the very upper end of the curve would fit under our definition of abnormal; this person would also be considered a genius. Obviously, this is an instance where falling outside of the norms is actually a good thing.

When you think about abnormal psychology, rather than focus on the distinction between what is normal and what is abnormal, focus instead on the level of distress or disruption that a troubling behavior might cause. If a behavior is causing problems in a person's life or is disruptive to other people, then this would be an "abnormal" behavior that may require some type of mental health intervention.

6.6 Approaches to the Study of Abnormal Psychology

There are a number of different perspectives used in abnormal psychology. While some psychologists or psychiatrists may focus on a single viewpoint, many mental health professionals use elements from multiple areas in order to better understand and treat psychological disorders. These perspectives include:

> **The psychoanalytic approach:** This perspective has its roots in the theories of Sigmund Freud. The psychoanalytic approach suggests that many abnormal behaviors stem from unconscious thoughts, desires, and memories. While these feelings are outside of awareness, they are still believed to influence conscious actions. Therapists who take this approach believe that by analyzing memories, behaviors, thoughts, and even dreams, people can uncover and deal with some of the feelings that have been leading to maladaptive behaviors and distress.

The behavioral approach: This approach to abnormal psychology focuses on observable behaviors. In behavioral therapy, the focus is on reinforcing positive behaviors and not reinforcing maladaptive behaviors. The behavioral approach targets only the behavior itself, not the underlying causes. When dealing with an abnormal behavior, a behavioral therapist might utilize strategies such as classical conditioning and operant conditioning to help eliminate unwanted behaviors and teach new behaviors.

The medical approach: This approach to abnormal psychology focuses on the biological causes of mental illness, emphasizing understanding the underlying cause of disorders, which might include genetic inheritance, related physical illnesses, infections, and chemical imbalances. Medical treatments are often pharmacological in nature, although medication is often used in conjunction with some type of psychotherapy.

The cognitive approach: The cognitive approach to abnormal psychology focuses on how internal thoughts, perceptions, and reasoning contribute to psychological disorders. Cognitive treatments typically focus on helping the individual change his or her thoughts or reactions. Cognitive therapy might also be used in conjunction with behavioral methods in a technique known as cognitive behavioral therapy (CBT).

More psychologists are involved in the diagnosis and treatment of psychological disorder than in any other aspect of psychology.

Statistics for instance shows that, about 1 in every 4 Americans (over 78 million people) are estimated to be affected by a psychological disorder during any one year. The impact of mental illness is particularly strong on people who are poorer, of lower socioeconomic class, and from disadvantaged ethnic groups.

A psychological disorder is an unusual, distressing, and dysfunctional pattern of thought, emotion, or behavior. Psychological disorders are often comorbid, meaning that a given person suffers from more than one disorder.

The stigma of mental disorder affects people while they are ill, while they are healing, and even after they have healed. But mental illness is not a "fault," and it is important to work to help overcome the stigma associated with disorder.

All psychological disorders are determined by biological, psychological, and social factors.

Psychologists diagnose disorder using the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*). The *DSM* organizes the diagnosis of disorder according to five dimensions (or axes) relating to different aspects of disorder or disability. The *DSM* uses categories, and patients with close approximations to the prototype are said to have that disorder.

One critique of the *DSM* is that many disorders—for instance, attention-deficit/hyperactivity disorder (ADHD), autistic disorder, and Asperger's disorder—are being diagnosed significantly more frequently than they were in the past.

6.7 Disorders

Anxiety disorders are psychological disturbances marked by irrational fears, often of everyday objects and situations. They include generalized anxiety disorder (GAD), panic disorder, phobia, obsessive-compulsive disorder (OCD), and posttraumatic stress disorder (PTSD). Anxiety disorders affect about 57 million Americans every year.

Dissociative disorders are conditions that involve disruptions or breakdowns of memory, awareness, and identity. They include dissociative amnesia, dissociative fugue, and dissociative identity disorder.

Mood disorders are psychological disorders in which the person's mood negatively influences his or her physical, perceptual, social, and cognitive processes. They include dysthymia, major depressive disorder, and bipolar disorder. Mood disorders affect about 30 million Americans every year.

Schizophrenia is a serious psychological disorder marked by delusions, hallucinations, loss of contact with reality, inappropriate affect, disorganized speech, social withdrawal, and deterioration of adaptive behavior. About 3 million Americans have schizophrenia.

A personality disorder is a long-lasting but frequently less severe disorder characterized by inflexible patterns of thinking, feeling, or relating to others that causes problems in personal, social, and work situations. They are characterized by odd or eccentric behavior, by dramatic or erratic behavior, or by anxious or inhibited behavior. Two of the most important personality disorders are borderline personality disorder (BPD) and antisocial personality disorder (APD).

Somatization disorder is a psychological disorder in which a person experiences numerous longlasting but seemingly unrelated physical ailments that have no identifiable physical cause. Somatization disorders include conversion disorder, body dysmorphic disorder (BDD), and hypochondriasis.

Patients with factitious disorder fake physical symptoms in large part because they enjoy the attention and treatment that they receive in the hospital.

Sexual disorders refer to a variety of problems revolving around performing or enjoying sex. Sexual dysfunctions include problems relating to loss of sexual desire, sexual response or orgasm, and pain during sex.

Gender identity disorder (GID, also called transsexualism) is diagnosed when the individual displays a repeated and strong desire to be the other sex, a persistent discomfort with one's sex, and a belief that one was born the wrong sex, accompanied by significant dysfunction and distress. The classification of GID as a mental disorder has been challenged because people who suffer from GID do not regard their own cross-gender feelings and behaviors as a disorder and do not feel that they are distressed or dysfunctional.

A paraphilia is a sexual deviation where sexual arousal is obtained from a consistent pattern of inappropriate responses to objects or people, and in which the behaviors associated with the feelings are distressing and dysfunctional.

6.8 Terminologies

1. Anxiety disorders: Are psychological disturbances marked by irrational fear of object and situations.

2. Dissociative disorders: Are conditions that involve disruption or breakdown of meaning, awareness and identity.
3. Gender identity disorder also called transsexualism is diagnosed when the individual displays a repeated and strong desire to be another sex.

6.9 Activities

1. Examine the following approaches to the study of abnormal behavior: behavioural, medical, and cognitive approaches.
2. Write brief notes on the following: personality disorder, somatization disorder, sexual disorder and gender identity disorder.

6.8 Reflection

How easy do you think it is to diagnose patients with above mentioned disorders?

6.9 Summary

In this unit, we have discussed various approaches psychologist use in the study of abnormal psychology. The major approaches discussed included; the psychodynamic, behavioral and medical. Different disorders have also been discussed.

UNIT 7: THE HISTORY OF SOCIAL PSYCHOLOGY

7.1 Introduction

Since the beginning of time, people have been trying to determine human behavior. Psychology also has a history that has been written by many psychologists and scholars throughout time. These people and ideas have come together to form what we know today as psychology. New ideas were manifested and soon so did the field of social psychology. Social psychology has many origins and cannot be traced back to just one origin. In this unit, we will tell about how this field of psychology was first formed and how it has evolved over time.

7.2 Learning outcomes

By the end of this unit, you are expected to;

- discuss the history of social psychology.
- examine causes of stereotypes and prejudice.
- explain the meaning of social trap.
- analyze causes of social influence.
- examine causes of social conformity.

7.3 Time frame

You need about four (4) hours per week interacting with this material.

7.4 Content

- Pioneers of Social Psychology
- Social Psychology of the Early 20th Century
- Social Psychology of the Late 20th Century
- Present Day Social Psychology

What is Social Psychology?

Psychology is a science that has grown in the past hundreds of years since it was first founded. The history of psychology dates back to the ancient Greeks. It was a branch of philosophy until the 1870s and was developed separately in the United States and Germany. Hermann Ebbinghaus, a notable German psychologist, had a famous statement about the history of psychology, Psychology has a long past, but only a short history.

7.5 Pioneers of Social Psychology

Charles Darwin made a vast contribution to social psychology and to psychology as a whole. In this book entitled, The Expression of the Emotions in Man and Animals, Darwin (1872) proposed that emotional expressions might serve an adaptive social function. This adaptive social function is to communicate a person's (or an animal's) intentions to another person (or animal) (Darwin, 1872).

Herbert Spencer, Bagehot, and Karl Marx were social thinkers who were influenced by Darwin's findings. They all explained social evolution by using Darwin's theory of natural selection. Herbert Spencer said that human life is a continuous adjustment of internal and external relations. Thus, in order to understand life, one must understand the social environment. Many geographists saw human behavior as the outcome of climatic factors. Comte theorized three stages in the progress of society, religious, spiritual, and social. He believed that man's entire behavior is dependent upon society. In 1897, Herbert Spencer criticized this view and stated that changes in the social structure are caused by definite natural laws which dispense with the necessity of control by the administration (Sharma, 2004).

Jahoda (2007) found the term social psychology was coined by the Italian journalist and politician Carlo Cattaneo in an article published in 1864 in the journal, Il Politencio. Catteneo explained Hegel's ideas to interpersonal interactions and argued that conflicting ideas lead to the generation of new ones (Jahoda, 2007). Since Il Politencio was not a widely read journal, Jahoda suggests that the wider adoption of the concept should be traced back to Gustav Adolph Linder

(Jahoda, 2007). Linder was a professor at Prague University who used the term in his book Ideen

7.6 Social Psychology of the Early 20th Century

McDougall published the book, Introduction to Psychology, in 1908. His book was the first text in the field of social psychology with the term social psychology in the title. In 1908, McDougall adopted an explicitly evolutionary perspective. He theorized that human behavior was caused by instincts and later introduced the idea of the group mind. McDougall defined an instinct as, an inherited or innate psycho-physical disposition which determines its processor to perceive, and to perceive, and to pay attention to, objects of a certain class, to experience an impulse to such action (Plutchik, 1980) He viewed instincts as linked to seven powerful emotions: fear, disgust, curiosity, anger, embarrassment, pride, and empathy (McDougall, 1911). Including these seven emotions, McDougall added two social motivations that he believed did not have distinct emotions: the reproductive instinct and gregarious instinct. In the early 20th century, McDougall had a famous debate with behaviorist John Watson and was judged by the public according to some sources McDougall lost the argument (Plutchik, 1980).

At the same time, Ross introduced social psychology as concerned with conformity, imitation, and custom, forming theories for people's thinking. Ross focused on biological foundations, and conventions on the individual. In his book he emphasized on social influence through the processes of imitation and suggestion. Imitation is defined as the influence of other people on human behavior. Suggestion is defined as the influence of others on human thoughts.

At the start of the 20th century, the first empirical investigations were guided by the same type of questions that inspired the early thinkers and philosophers. In the 1920s and 1930s, a group of social psychologists challenged the reigning models of the individuals and the empiricism forwarded into emerging experimental program of research. Gardner Murphy, Lois Barclay Murphy, and Gordon Allport designed an alternative perspective based on William James's radical empiricism and a social activist stance. These researchers, according to Pandora (1997), rejected the image of the laboratory as an ivory tower, contested the canons of objectivity that characterized current research practices, and argued against reducing nature and social worlds to

the lowest possible terms. The book Experimental Social Psychology was published by Gardner Murphy and Lois Murphy of Columbia University in 1931. The first studies in this book examined the influence of source factors on attitude change. Most of the book was dedicated to attitudes. Gardner Murphy defined social psychology as an experimental process, which separated it from naturalist observational methods used in sociology.

7.7 Social Psychology of the Late 20th Century

In the late 1960s and 1970s psychological research had expanded tremendously and there was not a psychology department at a top university that did not have a strong social psychology unit. People found history to be a way to get a better understanding about the social sciences. Professional historians also became more interested in the impact social sciences had on the 20th century culture and society. Historians discovered that psychology opened a lot of doors to discover the extension of scientific customs to traditionally humanist subjects such as rationality, sociality, and mind. Early work of culture and personality school was highly influenced by Freud's theory of how culture and personality are related. Another key contribution to social psychology during this time was the demonstration that even basic differences in psychological processes are not necessary universal. Trandis's work during this time was arguably the first to incorporate a wide range of social-psychological concepts in the study of culture and thus had an important influence on modern-day cross-cultural psychology. He believed that the basic element of the study of culture is categorization and that members of different cultures have unique ways of categorizing experience. Another belief he had was that the members of each culture have specific ways of associating with each other.

Milgram and Zimbario's studies

Because of all of the new advancements in social psychology more and more experiments were conducted on different social issues. One famous one was Milgram's study on obedience. Milgram conducted an electric shock experiment, which looked at the role and authority figure plays in obedience. He wanted to experiment whether Germans were particularity obedient to authority figures because this was a common explanation for the Nazi killing in World War I. Milgram selected his participants for the study by advertising for male participants to take part in

a study of learning at Yale University. The participant was paired with another individual and they were randomly divided amongst themselves to find out who would be the learner and who would be the teacher. The learner in the experiment was one of Milgram's confederates pretending to be a real participant and the participant was always the teacher. The learner was directed into a room and had electrodes attached to his arms. The researcher went into a room next door that contained an electric shock generator and a row of switches. The teacher was told by Milgram and his confederates to administer an electric shock every time the leaner makes a mistake. Administering a shock to the learner every time the learner would get a question wrong would result with an increase in shock level. The learner gave the wrong answers on purpose and for each wrong answer was administrated a shock. When the teacher refused to give the learner another shock they were told to continue. The result of the experiment was that most participants administrated to the highest level of electric shock. The conclusion from the study was that anyone is likely to follow orders given by an authority figure, no matter how gruesome the act may be.

Another famous study was Zimbario's prison study demonstrated conformity to given roles in the social world. Zimbardo was interested in finding out whether the brutality reported among guards at American prisons was due to the personalities of the judges or have to do with the prison's environment. The basement of the Standford University was converted into a mock prison and he advertised students to play the roles of guards or prisoners. Within hours both guards and prisoners were taking on the roles very seriously. Guards were harassing prisoners and prisoners became more dependent. The conclusion of the experiment was found that people will conform to the social roles they are expected to play in their society. It was discovered that the roles that people play can determine their behavior and attitudes.

7.8 Present Day Social Psychology

Social Psychology has evolved tremendously since the beginnings of the study of the science. It has had a major influence on a variety of major real world societal problems. The study of social psychology has had many early influencers and it continues to be an evolving subject. Currently there are many social psychological ideas and commentaries in major popular media and books. Social psychological concepts have come a common way in which people talk about and

understand individuals and societies. Because of social psychology there are many advancement in health, environmental, and legal psychology. Today social psychology is in all psychology departments at major universities around the world.

Social Psychology Key Terms that you need to know

Fundamental Attribution Error: The tendency for observers, when analyzing another's behavior, to underestimate the impact of the situation and to overestimate the impact of personal disposition.

Attitude: Feelings, often influenced by our beliefs that predispose us to respond in a particular way to objects, people, and events.

Foot-in-the-door phenomenon: The tendency for people who have first agreed to a small request to comply later with a larger request.

Cognitive Dissonance Theory: The theory that we act to reduce the discomfort (dissonance) we feel when two of our thoughts (cognitions) are inconsistent. For example, when our awareness of our attitudes and of our actions clash, we can reduce the resulting dissonance by changing our attitudes.

Conformity: Adjusting one's behavior or thinking to coincide with a group standard.

Normative Social Influence: Influence resulting from a person's desire to gain approval or avoid disapproval.

Informational Social Influence: Influence resulting from one's willingness to accept others' opinions about reality.

Social Facilitation: Stronger responses on simple or well-learned tasks in the presence of others.

Social Loafing: The tendency for people in a group to exert less effort when pooling their efforts toward attaining a common goal than when individually accountable.

Deindividuation: The loss of self-awareness and self-restraint occurring in group situations that foster arousal and anonymity.

Group Polarization: The enhancement of a group's prevailing inclinations through discussion within the group.

Groupthink: The mode of thinking that occurs when the desire for harmony in a decisionmaking group overrides a realistic appraisal of alternatives.

Prejudice: An unjustifiable (and usually negative) attitude toward a group and its members. Prejudice generally involves stereotyped beliefs, negative feelings, and a predisposition to discriminatory action.

Discrimination: Unjustifiable negative behavior toward a group or its members.

In-group/Out-group: "Us"-people with whom we share a common identity/ "Them"-those perceived as different or apart from our in-group.

7.9 Terminologies

1. Fundamental attribution error: This is a tendency for observers, when analyzing another's behavior to underestimate the impact of the situation and the to overestimate the impact of personal disposition.
2. Attitude: Feeling, often influenced by our belief that predispose us to respond in a particular way to objects, people and events.
3. Conformity: Adjusting one's behavior or thinking to coincide with a group standard

7.10 Activity

1. Discuss the following terms:

- Group think
- Deindividuation
- Foot in the door technique

- Social schemas

7.11 Reflection

What do you think are the causes of deindividualization?

7.12 Summary

In this unit, we have discussed the history of social psychology, causes of stereotype and prejudice, social trap and factors, reasons group conformity and group dynamics. We believe that you are now able to appreciate helping behaviours and why some people, conformity, social influence, and prejudice.

UNIT 8: STRESS MANAGEMENT

8.1 Introduction

Stress is your body's way of responding to any kind of demand or threat. When you sense danger—whether it's real or imagined—the body's defenses kick into high gear in a rapid, automatic process known as the "fight-or-flight" reaction or the "stress response."

The stress response is the body's way of protecting you. When working properly, it helps you stay focused, energetic, and alert. In emergency situations, stress can save your life—giving you extra strength to defend yourself, for example, or spurring you to slam on the brakes to avoid an accident.

Stress can also help you rise to meet challenges. It's what keeps you on your toes during a presentation at work, sharpens your concentration when you're attempting the game-winning free throw, or drives you to study for an exam when you'd rather be watching TV. But beyond a certain point, stress stops being helpful and starts causing major damage to your health, your mood, your productivity, your relationships, and your quality of life.

8.2 Learning Outcome

By the end of this unit, you are expected to;

- describe causes of stress.
- explain effects of stress.
- identify symptoms of stress.
- explain ways of managing stress.

8.3 Time frame

You need about two (2) hours per week interacting with this material.

8.4 Content

- Signs and symptoms of stress overload
- Causes of stress

- Factors that influence your stress tolerance level

Fight-or-flight response: what happens in the body?

When you feel threatened, your nervous system responds by releasing a flood of stress hormones, and including adrenaline and cortisol, which rouse the body for emergency action. Your heart pounds faster, muscles tighten, blood pressure rises, breath quickens, and your senses become sharper. These physical changes increase your strength and stamina, speed your reaction time, and enhance your focus—preparing you to either fight or flee from the danger at hand.

Your nervous system isn't very good at distinguishing between emotional and physical threats. If you're super stressed over an argument with a friend, a work deadline, or a mountain of bills, your body can react just as strongly as if you're facing a true life-or-death situation. And the more your emergency stress system is activated, the easier it becomes to trigger and the harder it becomes to shut off.

If you tend to get stressed out frequently—as many of us do in today's demanding world—your body may be in a heightened state of stress most of the time. And that can lead to serious health problems. Chronic stress disrupts nearly every system in your body. It can suppress your immune system, upset your digestive and reproductive systems, increase the risk of heart attack and stroke, and speed up the aging process. It can even rewire the brain, leaving you more vulnerable to anxiety, depression, and other mental health problems.

Health problems caused or exacerbated by stress include:

1. Depression and anxiety
2. Pain of any kind
3. Sleep problems
4. Autoimmune diseases
5. Digestive problems

6. Skin conditions, such as eczema
7. Heart disease

8. Weight problems
9. Reproductive issues
10. Thinking and memory problems

8.5 Signs and symptoms of stress overload

The most dangerous thing about stress is how easily it can creep up on you. You get used to it. It starts to feel familiar — even normal. You don't notice how much it's affecting you, even as it takes a heavy toll. That's why it's important to be aware of the common warning signs and symptoms of stress overload.

Cognitive symptoms

- Memory problems
- Inability to concentrate
- Poor judgment
- Seeing only the negative
- Anxious or racing thoughts
- Constant worrying

Emotional symptoms

- Depression or general unhappiness
- Anxiety and agitation
- Moodiness, irritability, or anger
- Feeling overwhelmed
- Loneliness and isolation
- Other mental or emotional health problems

Physical symptoms

- Aches and pains
- Diarrhea or constipation
- Nausea, dizziness

- Chest pain, rapid heart rate
- Loss of sex drive
- Frequent colds or flu

Behavioral symptoms

- Eating more or less
- Sleeping too much or too little
- Withdrawing from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (e.g. nail biting, pacing)

8.6 Causes of stress

The situations and pressures that cause stress are known as stressors. We usually think of stressors as being negative, such as an exhausting work schedule or a rocky relationship. However, anything that puts high demands on you can be stressful. This includes positive events such as getting married, buying a house, going to college, or receiving a promotion.

Of course, not all stress is caused by external factors. Stress can also be internal or selfgenerated, when you worry excessively about something that may or may not happen, or have irrational, pessimistic thoughts about life.

Finally, what causes stress depends, at least in part, on your perception of it. Something that's stressful to you may not faze someone else; they may even enjoy it. While some of us are terrified of getting up in front of people to perform or speak, for example, others live for the spotlight. Where one person thrives under pressure and performs best in the face of a tight deadline, another will shut down when work demands escalate. And while you may enjoy helping care for your elderly parents, your siblings may find the demands of caretaking overwhelming stressful.

Common **external** causes of stress include:

- Major life changes
- Work or school
- Relationship difficulties

- Financial problems
- Being too busy
- Children and family

Common **internal** causes of stress include:

- Pessimism
- Inability to accept uncertainty
- Rigid thinking, lack of flexibility

- Negative self-talk
- Unrealistic expectations / perfectionism
- All-or-nothing attitude

Top 10 stressful life events

According to the widely validated Holmes and Rahe Stress Scale, these are the top ten stressful life events for adults that can contribute to illness:

1. Death of a spouse
2. Divorce
3. Marriage separation
4. Imprisonment
5. Death of a close family member
6. Injury or illness
7. Marriage
8. Job loss
9. Marriage reconciliation
10. Retirement

What's stressful for you?

Whatever event or situation is stressing you out, there are ways of coping with the problem and regaining your balance. Some of life's most common sources of stress include:

Stress at work

While some workplace stress is normal, excessive stress can interfere with your productivity and performance, impact your physical and emotional health, and affect your relationships and home life. It can even mean the difference between success and failure on the job. Whatever your ambitions or work demands, there are steps you can take to protect yourself from the damaging effects of stress, improve your job satisfaction, and bolster your well-being in and out of the workplace.

Job loss and unemployment stress

Losing a job is one of life's most stressful experiences. It's normal to feel angry, hurt, or depressed, grieve at all that you've lost, or feel anxious about what the future holds. Job loss and unemployment involves a lot of change all at once, which can rock your sense of purpose and self-esteem. While the stress can seem overwhelming, there are many things you can do to come out of this difficult period stronger, more resilient, and with a renewed sense of purpose.

Caregiver stress

The demands of caregiving can be overwhelming, especially if you feel you're in over your head or have little control over the situation. If the stress of caregiving is left unchecked, it can take a toll on your health, relationships, and state of mind — eventually leading to burnout. However, there are plenty of things you can do to rein in the stress of caregiving and regain a sense of balance, joy, and hope in your life.

Grief and loss

Coping with the loss of someone or something you love is one of life's biggest stressors. Often, the pain and stress of loss can feel overwhelming. You may experience all kinds of difficult and unexpected emotions, from shock or anger to disbelief, guilt, and profound sadness. While there is no right or wrong way to grieve, there are healthy ways to cope with the pain that, in time, can

ease your sadness and help you come to terms with your loss, find new meaning, and move on with your life.

How much stress is too much?

Because of the widespread damage stress can cause, it's important to know your own limit. But just how much stress is "too much" differs from person to person. Some people seem to be able to roll with life's punches, while others tend to crumble in the face of small obstacles or frustrations. Some people even thrive on the excitement of a high-stress lifestyle.

8.5 Factors that influence your stress tolerance level

Your support network. A strong network of supportive friends and family members is an enormous buffer against stress. When you have people you can count on, life's pressures don't seem as overwhelming. On the flip side, the lonelier and more isolated you are, the greater your risk of succumbing to stress.

Your sense of control. If you have confidence in yourself and your ability to influence events and persevere through challenges, it's easier to take stress in stride. On the other hand, if you believe that you have little control over your life—that you're at the mercy of your environment and circumstances, with limited ability to make changes—stress is more likely to knock you off course.

Your attitude and outlook. The way you look at life and its inevitable challenges makes a huge difference in your ability to handle stress. If you're generally hopeful and optimistic, you'll be less vulnerable. Stress-hardy people tend to embrace challenges, have a stronger sense of humor, believe in a higher purpose, and accept change as an inevitable part of life.

Your ability to deal with your emotions. If you don't know how to calm and soothe yourself when you're feeling sad, angry, or troubled, you're more likely to become stressed and agitated. Having the ability to identify and deal appropriately with your emotions can increase your tolerance to stress and help you bounce back from adversity.

Your knowledge and preparation. The more you know about a stressful situation—including how long it will last and what to expect—the easier it is to cope. For example, if you go into surgery with a realistic picture of what to expect post-op, a painful recovery will be less stressful than if you were expecting to bounce back immediately.

Improving your ability to handle stress

Get moving. Upping your activity level is something you can do right now to help relieve stress and start to feel better. Regular exercise can lift your mood and serve as a distraction from worries, allowing you to break out of the cycle of negative thoughts that feed stress. Rhythmic exercises such as walking, running, swimming, and dancing are particularly effective, especially if you exercise mindfully (focusing your attention on the physical sensations you experience as you move).

Connect to others. The simple act of talking face-to-face with another human can trigger hormones that relieve stress when you're feeling agitated or insecure. Even just a brief exchange of kind words or a friendly look from another human being can help calm and soothe your nervous system. So, spend time with people who make you feel good and don't let your responsibilities keep you from having a social life. If you don't have any close relationships, or your relationships are the source of your stress, make it a priority to build stronger and more satisfying connections.

Engage your senses. Another fast way to relieve stress is by engaging one or more of your senses—sight, sound, taste, smell, touch, or movement. The key is to find the sensory input that works for you. Does listening to an uplifting song make you feel calm? Or smelling ground coffee? Or maybe petting an animal works quickly to make you feel centered? Everyone responds to sensory input a little differently, so experiment to find what works best for you.

Learn to relax. You can't completely eliminate stress from your life, but you can control how much it affects you. Relaxation techniques such as yoga, meditation, and deep breathing activate the body's relaxation response, a state of restfulness that is the polar opposite of the stress response. When practiced regularly, these activities can reduce your everyday stress levels and

boost feelings of joy and serenity. They also increase your ability to stay calm and collected under pressure.

Eat a healthy diet. The food you eat can improve or worsen your mood and affect your ability to cope with life's stressors. Eating a diet full of processed and convenience food, refined carbohydrates, and sugary snacks can worsen symptoms of stress while eating a diet rich in fresh fruit and vegetables, high-quality protein, and omega-3 fatty acids, can help you better cope with life's ups and downs.

Get your rest. Feeling tired can increase stress by causing you to think irrationally. At the same time, chronic stress can disrupt your sleep. Whether you're having trouble falling asleep or staying asleep at night, there are plenty of ways to improve your sleep so you feel less stressed and more productive and emotionally balanced.

8.7 Terminologies

1. Stress: Pressure or tension exerted on a material object or a state of emotional strain or tension resulting from adverse or demanding circumstances.

8.8 Activities

1. Examine causes of stress.
2. Explain symptoms of stress.
3. Discuss stress management strategies.

8.9 Summary

In this unit, we have discussed causes of stress, we have also described the symptoms of stress. Stress management strategies have also been discussed. We hope that you enjoyed interaction with this unit, prepare yourself now to study learning theories.

UNIT 9: LEARNING THEORIES

9.1 Introduction

As you may be aware, learning is when experience causes a relatively permanent change in an individual's knowledge or behaviour. The change may be deliberate or an unintentional, for better or for worse, correct or incorrect, and conscious or unconscious.

On the other hand, changes simply caused by maturation, such as acquiring teeth, growing taller do not qualify as learning. Temporal changes resulting from illness, fatigue or hunger are also excluded from a general definition of learning.

9.2 Learning Outcomes

By the end of this unit, you are expected to;

- discuss early explanations of learning.
- explain the difference between classical and operant conditioning.
- apply learning theories in the classroom.
- discuss reinforcement schedules.

9.3 Time frame

You need about six (6) hours per week interacting with this material.

9.4 Content

- Classical Conditioning
- Observation Condition
- Observational Learning Theory
- Situated Learning Theory
- Invitational Learning Theory

Early Explanations of Learning

In your own understanding, what can you say learning is?

One of the earliest explanations of learning came from Aristotle (384 – 322: BC). He said that we learn and remember things:

i) When they are similar ii)

When they contrast and

iii) When they are contiguous (presented together). The last principle is the most important, because it is included in all explanations of learning by association. Do you agree? The principle of contiguity (association of two events because of repeated pairing) states that, whenever two or more sensations occur together often enough they will become associated later, when only one of these sensations (a stimulus) occurs together, the other will be remembered too. (a response)
How can you explain the word stimulus?

A stimulus is an event that activates behaviour while a response is the observable reaction to a stimulus.

Contiguity also plays a major role in another learning process best known as classical conditions.

9.5 Classical Conditioning

Classical conditioning is learning through association. It was identified in the 1920s by Iran Pavlov, a Russian physiologist who tried to determine how long it took a dog to secrete digestive juices after it had been fed. But the intervals of time kept on changing (Pavlov, 1927). At first, the dogs salivated as expected while they were being fed. Then the dogs began to salivate as soon as they saw the food and then as soon as they saw the scientist walking towards the lab. Pavlov decided to move away from his original experiments and examined these unexpected interference in his work.

In one of his first experiments, Pavlov began by sounding a bell and recorded a dog's response. As expected there was no salivating at this point, the sound of a bell was a;

Neutral Stimulus– (a stimulus not connected to a response) because it brought forth no salivation. Then Pavlov fed the dog. The response was salivation

The food was an unconditioned stimulus (US) because no prior training or conditioning was needed to establish the natural connection between food and salivation (the unconditioned stimulus is a stimulus that automatically produces an emotional or physiological response).

The salivation was unconditioned response (UR) again because it was elicited automatically no conditioning was required.

Using these three elements – the food, the salivation and the bell – Pavlov demonstrated that a dog could be conditioned to salivate after hearing the bell. He did this by continuously paring the sound of the bell will food. At the beginning of the experiment, he sounded the bell and then quickly fed the dog. After Pavlov repeated this several times, the dog began to salivate after hearing of the bell, but before receiving the food. Now the sound had become a Conditioned Stimulus– (a stimulus that evokes an emotional or physiological response after conditioning) a conditioned stimulus can bring forth salivation by itself. The salivating response after the sound was now a Conditioned Response (CR). This is a learnt response to a previously neutral stimulus.

Now how can you apply classical conditioning in teaching? Here are some suggested procedures;

- Associate positive, pleasant events with learning tasks. E.g. emphasize group competition and cooperate over individual competition.
- Many learners have negative emotional responses to individual competition because they may have repeatedly lost or been embarrassed and that may generalize to other learning.
- Help learners reduce anxiety by allowing them make presentations in class.
- Come up with short steps towards a larger goal, give practice tests weekly, and then monthly, to learners who tend to ‘freeze’ in test situation.
- Help learners recognize differences and similarities among situations so that they can discriminate and generalize appropriately. E.g. assure learners who are anxious about taking important tests (such as G.C.E. that this test is like all other achievement tests they have taken. before.

Can you suggest any other ways to apply classical conditioning in class?

Now let us look at limitations of classical conditioning.

As you may be aware there are some limitations in the application of classical conditioning in the classroom Suggest some of them.

Others may include the following:

- It assumes humans to be simple machine like creatures who simply respond to stimuli without thinking.
- It does not consider the learners' cultural background.
- Classical conditioning describe only how existing behaviours may be paired with new stimuli; however, it does not explain how new behaviours are acquired.

Having discussed classical conditioning, let us now look at operant conditioning. How can you explain operant conditioning?

9.6 Operant Conditioning

Operant Conditioning: involves trying new responses

You are aware that People act or 'operate' on their environment to produce different kinds of consequences. Operant is a voluntary (and generally go directed) behaviour emitted by a person or an animal. The learning process involved in operant behaviour is called operant conditioning because we learn to behave in certain ways (become conditioned) as we operate on the environment.

The person generally thought to be responsible for developing the concept of operant conditioning is B.F Skinner (1953). Skinner began with a belief that the principles of classical conditioning account for only a small portion of learnt behaviours. Many human behaviours are operates (voluntary behaviours, emitted by a person) not respondents.

How can you explain human behaviour, like response, action is simply a word for what a person does in a particular situation? Conceptually, we may think of behaviour as sandwiched between

two sets of environmental influences: Those that precede it (its antecedents) and events following it (consequences) (Skinner, 1950).

This relationship can be shown by simply as antecedent – behaviour- consequence, A – B, - C. As behaviour is ongoing, a given consequence becomes an antecedent for the next ABC sequence.

According to the behavioural view, consequence determines a great extent whether a person will repeat the behaviour that led to the consequence. The type and timing of consequences can either strength or weaken behaviours.

Reinforcement

Having discussed classical and operant conditioning, we now look at reinforcement.

In your own way, what do you understand by the term reinforcement?

Reinforcement involves use of Consequence to Strengthen Behaviour.

You may recall that reinforcement to some people might mean ‘a reward’. This term has a particular meaning in psychology. A Reinforcer; is any consequence that strengthens the behaviour it follows. Therefore, reinforced behaviours increase in frequency or duration. The reinforcement process can be shown below;

Consequence effect

Behaviour reinforcer → strengthened or repeated action. Sometimes whether the consequence of an action is reinforcing probably depends on individual perception of the event and the meaning it holds for the individual. From the above statement,

You can say that when behaviour is reinforced the chances of it repeating are very high.

You may be aware that there are different types of reinforcement. Here are some of them:

Positive Reinforcement

This involves strengthening behaviour by presenting a desired stimulus after the behaviour. This occurs when the behaviour produces a new stimulus e.g. wearing a new outfit producing many compliments. Notice that positive reinforcement can occur even when the behaviour which is being reinforce is not 'positive' e g falling out of the chair

You have seen that when the consequence that strengthens a behaviour is the addition of a new stimulus, the situation is defined as positive reinforcement.

Negative Reinforcement

Let us now look at Negative Reinforcement. What do you understand by negative reinforcement? It involves strengthening behaviour by removing an aversive stimulus when the behaviour occurs

As you can remember, a stimulus is an event that activates behaviour.

Punishment

What do you understand by the word punishment? What really comes to your mind when you hear this word?

Generally, it is the Process that weakens or suppresses behaviour.

As you may be aware Negative reinforcement is often confused with punishment. The process of reinforcement (positive or negative) always involves strengthening behaviour. Punishment on the other hand, involves, decreasing or suppressing behaviour. A behaviour followed by punishment is less likely to be repeated in similar situations in future.

The process of punishment is: Behaviour → punisher → weakened or decreased behaviour. Like reinforcement, punishment may take one of the two forms. The first type is presentation (or positive) punishment (sometime called type 1 punishment) presentation or positive punishment is decreasing the chances that a behaviour will occur again by presenting an aversive stimulus following the behaviour (also called type 1 punishment as stated above). This

occurs when the appearance of a stimulus following the behaviour suppresses or decreases the behaviour. For example, when teachers give out extra work, running laps, detentions and so on, they are using positive punishment.

The other type of punishment is removal (or Negative Punishment) – decreasing the chances that a behaviour will occur again by removing a pleasant stimulus following the behaviour; also called punishment type II. This type of punishment as stated involves removing a stimulus. For example, when teachers and parents take away privileges after a young person has behaved inappropriately, they are applying removal punishment, perhaps with holding pocket money. The effect is to decrease that behaviour that led to the punishment.

You have seen different types of reinforcement e g positive or negative and different types of punishment, which you as a teacher can use in your class.

Now let us look at reinforcement schedules. What are reinforcement schedules?

Reinforcement Schedules

These are plans of how reinforcement would be administered to the learners.

You may be aware that when people are learning a new behaviour or skill they will learn it faster if they are reinforced for every correct response. This is Continuous Reinforcement Then, when the new behaviour has been mastered, they will maintain it best if they are reinforced intermittently rather than every time. (Intermittent reinforcement schedule is presenting reinforcer after some but not all responses). This type of reinforcement schedule helps learners to maintain skills without expecting constant reinforcement.

There are two basic types of intermittent schedules,namely;

- Interval ratio schedule (length of time between reinforcers) is based on the amount of time that passes between the reinforcers. and
- The ratio schedule (reinforcement based on the number of responses between reinforcers).

Table 1: Below is the table showing reinforcement schedules

SCHEDULE	DEFINITION	EXAMPLE	RESPONSE	REACTION WHEN REINFORCEMENT stop
Continuous reinforcement	Every single response reinforced	(1) Receiving a grade for every piece of work	Rapid learning of responses	Disappears rapidly
Fixed interval	Reinforcement after a set period of time	Giving yourself a 15 minutes break after every hour of study	Response rate speeds up as next reinforcement approaches, but drops afterwards	Little resistance
Variable interval	Reinforcement after varying length of time	Finally receiving an answer after dialling busy number	Slow, steady rate of response	- greater persistence - slow decline in response rate
Fixed ratio	Reinforcement after set number of responses	Credit/grades awarded for completion of set number of assignments	- rapid response rate – pause after reinforcement	Little persistence rapid drop in response when expected number of responses given but no reinforcement occurs
Variable ratio	Reinforcement after varying number of responses	Receiving an A grade after a number of Cs - Slot machine	Very high response rate – little pause after reinforcement	Highest persistence response rate stays high and gradually drops off.

Having looked at reinforcement, you need to understand it so that you can select which reinforcement schedule would be appropriate for your situation at which point during teaching and learning process.

9.7 Terminology

1**.** Negative reinforcement involves strengthening behaviour by removing an aversive stimulus when the behaviour occurs.

9. 8Activity

1. Why is reinforcement important in teaching and learning?

2. What is a reinforcement schedule?

Explain the following:

- Positive punishment
- Negative reinforcement

9.9 Reflection

From the discussion on reinforcement, identify any three schedules and explain how you would use them to change behaviour.

9.10 Observational Learning Theory

You may be aware that over 30 years ago, Albert Bandura noted that the traditional behavioural views of learning were accurate, but incomplete because they gave only a partial explanation of learning and over looked important elements, particularly social influences.

His early work was grounded in the behavioural principles of reinforcement and punishment, but he added a focus on learning from observing others.

Social Learning Theory

Do you know that Bandura's expanded view was labelled Social Learning Theory? A theory that emphasizes learning through observation of others. Social learning theory was considered neo behavioural approach (Bandura, 1977, Hill, 2002). (Never supported behavioural theories)

To explain some limitations of the behavioural theories, Bandura distinguished between the acquisition of knowledge (learning) and the observable performance based on that knowledge (behaved) in other ways Bandura suggested that we all may know more than we may show in our behaviour. An example is found in Bandura's early studies (1965). Pre-school children saw a film on a model kicking and punching an inflatable 'bobo' doll. One group saw the model rewarded for the aggression; another group saw the model punished and a third group saw no consequences. When they were moved to a room with a 'Bobo' doll, the children who had seen the punching and kicking reinforced on the film were the most aggressive on the doll. Those who had seen the attacks punished were the least aggressive. However, when the children were promised rewards for imitating the models aggression, all of them demonstrated had leant the behaviour.

Thus, we can see that incentives can affect performance. Even though learning might have occurred, it may not be demonstrated until the situation is appropriate or there are incentives to perform. Recently, Bandura has focused on cognitive factors such as belief, self-perceptions and expectations, so his theory now is called Social Cognitive Theory (Hill,2002) This theory adds cognitive factors such as beliefs, self-perceptions and expectations to the social learning. This theory distinguishes between enactive and vicarious learning. Enactive is learning by doing and experiencing the consequence of your action. This may sound like operant conditioning all over again. But it is not, and the difference has to do with the role of consequences. Proponents of operant conditioning believe that consequences strengthen or weaken behaviour.

In Enactive Learning, consequences are seen as providing information. Our interpretation of the consequences creates expectation, influence motivation and shape beliefs (Schunk 2004). Did you know that Vicarious Learning is learning by observation? People and animals can learn by merely observing another person or animal. And this fact challenges the behaviourist idea that

cognitive factors are unnecessary in an explanation of learning. Also it is important for you to understand that Observational Learning include three elements namely

(ii) Attention

(iii) Retention

(iv) Production, which are important for the process of observation to be complete.

In the same light Bandura identified three forms of reinforcement that can encourage observational learning. These are

- Reproduce; the behaviours of the model and receive direct reinforcement as when a gymnast successfully executes a flip/round off combination and the coach says excellent.
- Vicarious; reinforcement: increasing the chances that will repeat a behavior by observing another person being reinforced for that behavior.
- Self – reinforcement– controlling your own reinforcer.

You should also understand that Bandura came up with Factors that Influence Observational Learning and these are

- Developmental level of the observer
- Status of the model
- By watching others
- If observers have a high level of self – efficacy (a person's sense of being able to deal effectively with a particular task.)

In the same vain, you should also understand that Bandura came up with strategies on How to Promote Observational Learning. These strategies are:

- Directing attention to new behaviour to be learnt.
- Fine – tuning already – learnt behaviour
- Strengthening or weakening inhibition

- Deal with a rule breaker and breaking that rule will inhibit others from breaking that particular rule. You can use the ripple effect (this is the contagious spreading of behaviour through imitation.)
- Teaching new behaviours after looking at how to promote observational learning , he also looked at how to Encourage desired behaviour among learners and the following were the strategies:

Teach

- Self-management, use of behavioural learning principles to change your own behaviour.
  Goal setting

(b) Monitoring and evaluating progress

(c) Self – reinforcement - reward

9.7Terminology

1. Enactive is learning by doing and experiencing the consequence of your action. yourself for the Job well done.

9.8 Activity

1. Explain the difference between social learning theory and social cognitive theory
2. List any four factors that influence observational learning
3. Discuss strategies on how to promote observational learning

9.9 Reflection

What is the difference between enactive and vicarious learning?

9.11 Situated Learning Theory

It is important for you to understand that, as the name suggests, the idea of situated learning involves a deepening process of participation in a community of practice, a theory that has gained significant ground in recent years. Community of practice has also become an important

focus within organizational development and has considerable value when thinking about working with groups, (Lave, 1991).

9.12 Concepts used in Situated Learning Theory

You may be aware that a lot of scholars have tried to discuss situated learning in different ways. However, Situated Learning is defined as a process of enculturation, emphasizing the sociocultural setting and the activities of the people within that setting. In other words, learning is not an accumulation of information, but a transformation of the individual who is moving towards full membership in the professional community. (Hmelo & Evensen, 2000).

Jean Lave and Etienne Wenger, (1991), also defined situated learning as learning that takes place in the same context and environment in which it is applied. Lave's theory of situated learning advocates for learners participation in day-to-day learning activities. This implies that the routine involvement in every day skills acquisition which are community based would holistically shape a learner who would become a useful member of the community thereafter. Activities may involve physical, emotional, intellectual and moral shaping. For instance, fishing, sheparding of animals, making reed mats, dancing during traditional ceremonies, hunting, constructing mud and pole houses etc. During all these events, people learn various skills un intentionally by taking part in the activity as a matter of adventure. The duo in addition argue that, learning should not be viewed as simply the transmission of abstract and decontextualized knowledge from one individual to another, but a social process whereby knowledge is co-constructed. They suggest further that such learning is situated in a specific context and embedded within a particular social and physical environment.

It is important for you to understand that Laves' theory of situated learning as deduced above, allows students to have the opportunity to participate, interact and inject their own ideas as a way to obviously grow and make informed decision thereafter. It enables the learner to build their social and communication skills as they develop their cognition abilities. This is mostly done through learner internalization of what they see and act upon as they participate in actual community events.

Also, you should remember that in the situated learning approach, the. Knowledge and skills are learned in the contexts that reflect how knowledge is obtained and applied in everyday situations. Situated learning theory conceives of learning as a sociocultural phenomenon rather than the action of individual acquiring general information from a decontextualized body of knowledge (Kirshner & Whitson, 1997).

As you can see, the concept of situated learning as an instructional strategy has been seen as a means for relating subject matter to the needs and concerns of learners (Shor, 1987). Learning is essentially a matter of creating meaning from the real life and activities of daily living. By embedding subject matter in the ongoing experiences of the learners and by creating opportunities for learners to learn subject matter in the context of real-world challenges, knowledge is acquired and learning transfers from the classroom environment to the realm of practice.

You should remember that Jean lave maintains that to situate learning in other words simply means:

- To place thought and action in a specific place and time.
- To involve other learners, the environment, and the activities to create meaning.
- To locate in a particular setting the thinking and doing processes used by experts to accomplish knowledge and skill tasks (Lave and Wenger, 1991).

Further, you need to understand that in the learner's classroom situation, to situate learning means to create the conditions in which participants will experience the difficulty and uncertainty of learning in the real world. Participants will create their own knowledge out of the raw materials of experience, i.e., the relationships with other participants, the activities, the environmental cues, and the social organization that the community develops and maintains must be as friendly as possible to the learner so that the learners are not feeling out of place.

Lave also explains that a situated learning experience has four major premises guiding the development of classroom activities. These are:

Learning is grounded in the actions of everyday situations

Knowledge is acquired situationally and transfers only to similar situations

Learning is the result of a social process encompassing ways of thinking, perceiving, problem solving, and interacting in addition to declarative and procedural knowledge and

Learning is not separated from the world of action but exists in healthy, complex, social environments made up of actors, actions and situations.

These four premises differentiate situated learning from other experiential forms of acquiring knowledge. In situated learning, students learn content through activities rather than acquiring information in disconnected packages organized by instructors. Content is in born in the doing of the task and not separated from the noise, confusion, and group interactions prevalent in real work environments. Learning is not dilemma driven but rather content driven. Situations are presented that challenge the intellectual and psychomotor skills that learners will eventually apply at home, in the community, or the workplace (Lankard, 1995).

You should also remember that situated learning uses cooperative and participative teaching methods as the means of acquiring knowledge. Knowledge is created or negotiated through the interactions of the learner with others and the environment. Subject matter emerges from the cues provided by the environment and from the dialogue among the learning community. The structure of the learning is understood in the experience rather than in the subject matter structured by the instructor. Knowledge is obtained by the processes described (Lave, 1997, P.21) as "way in" and "practice." Way in is a period of observation in which a learner watches a master and makes a first attempt at solving a problem. Practice is refining and perfecting the use of acquired knowledge. Applied to the classroom, situated learning is not only reflecting upon and drawing implications from previous experiences but is immersion (interest through participation) in and with the experience.

9.13 Elements of situated learning

Do you know that, Situated learning places the learner in the centre of an instructional process consisting of content, the facts and processes of the task, context, the situations, values, beliefs, and environmental cues by which the learner gains and masters content, community, the group

with which the learner will create and negotiate meaning of the situation and participation in the process by which learners working together with experts in a social organization to solve problems related to everyday life circumstances (Brown, Collins, & Duguid, 1989, Lave 1988, Shor, 1987). It is important for you to understand that, learning becomes a social process dependent upon transactions with others placed within a context that resembles as closely as possible the learning environment.

You must remember that situated learning in the classroom integrates content, context, community of practice and participation. As explained below:

Content

Situated learning emphasizes higher-order thinking processes rather than the acquisition of facts independent of the real lives of the participants (Choi & Hannafin, 1995). Content situated in learner's daily experiences becomes the means to engage in reflective thinking (Shor, 1996). Retention of content is not the goal of learning. By placing content within the daily transactions of life, the instructor dialogues with learners, negotiates the meaning of content, frames it in terms of the issues and concerns within the learners in order to provide opportunities for learners to cooperate in investigating problem situations, and makes content applicable to the ways in which learners will approach the environment. Application rather than retention becomes the mark of a successful instructional encounter.

Context

You should remember that context refers to building an instructional environment sensitive to the tasks learners must complete to be successful in practice. Context embraces notions of power relationships, politics and family (Courtney, Speck, & Holtorf, 1996). Boud (1994) describes context as drawing out and using experiences as a means of engaging with and intervening in the social, psychological, and material environment in which the learner is situated. Context is not just bringing life events to the classroom but experiencing events from multiple perspectives. Learners are in the experience rather than being external to the event (Wilson, 1993). Context

provides the setting for examining experience from the community that provides and shaping of the learning.

Community of practice

The basic argument here is that, communities of practice are everywhere and that we are generally involved in a number of them whether at place of work, school, home, or in our civic and leisure interest. Wenger (2007) says that, communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour. For example, a tribe learning some survival skills, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a group of pupils defining their identity in the school, a network of surgeons exploring novel techniques, a gathering of first time- managers helping each other cope with work. In other words, communities of practices are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. However, characteristics of such communities of practice vary. Some communities of practice are quite formal in organizations, others are quite fluid and informal. Even so, members are brought together by joining in common activities and by what they have learned through their mutual engagement in these activities (Wenger 1998). This therefore, means that a community of practice is different from a community of interest or a geographical community in that it involves a shared practice.

9.14 The characteristics of communities of practice

According to Etienne Wenger (2007), three elements are crucial in distinguishing a community of practice from other groups and communities:

The domain, a community of practice is something more than a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest.

Membership therefore implies commitment to the domain, and therefore a shared competence that distinguishes members from other people.

The community. ‘In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationship that enables them to learn from each other’.

The practice. ‘Member of community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, and ways of addressing recurring problems-in short a shared practice. This takes time and sustained interaction’.

Participation

Participation describes the interchange of ideas that attempt to problem solving and active engagement of learners with each other and with the materials of instruction. It is the process of interaction with others that produces and establishes meaning systems among learners. From a situated cognition perspective, learning occurs in a social setting through dialogue with others in the community (Lave 1988). Learning becomes a process of reflecting, interpreting, and negotiating meaning among the participants of a community. Learning is the sharing of the narratives produced by a group of learners.

9.15 Application of situated learning theory to learning

What are the implications of this view of learning to instruction?

Before we answer this question, let us review some basic theoretical assumptions entailed in situated learning:

1. Learning-in-practice (lave, 1990): learning is conceived as increasing participation in communities of practice; Learning is a co-constitutive process in which all participants change and are transformed through their action and relations.

2. Knowledge accrues through the lived practices of the people in the society: knowledge remains inert and unused if taught in contexts that separate knowing from doing; one learns a subject matter by doing what experts in that subject matter do.

3. Learning involve social participation; hence, cognition takes place within the world and not in minds construed as somehow separate from or outside the World, a learning should take place in context and social situations.

4. Cognition is a matter of sign activity, or semiosis, i.e. continuously dynamic and productive activity of signs.

These assumptions give rise to some instructional principles and impacts to instruction:

1. Provide authentic tasks in the learning environment: authentic task are those ordinary practices in the culture. The authentic involves two levels: the objectives and data in the setting, and the degree to which the tasks that students are asked to perform are authentic.

2. Simulate apprenticeship that comprises authentic task: school children could acquire the knowledge and skills of historians, Mathematicians, or scientists by becoming apprentices in those disciplines.

3. Learning communities: change of learning culture in the classroom: change from knowledge dispenser into the learning community, in which teacher and learners work collaboratively to achieve important goals emphasizing distributed expertise (students come to the learning task with different interests and experiences and are provided the opportunity within the community to learn different things. For example, CSILE (Computer-Supported Intentional Learning Environment) provides a means for student to engage in knowledge-building within a learning community, i.e. students focus on a problem of interest and begin to build a communal database of information about the problem: discourse, reflection and peer review.

Wilson and Myers (2000) described the impact of this type of social interactional view on designers as follows:

- We as instructional designers must go into the community of the practitioners, using ethnographic methods of observation and reflection, and become participant observers. We develop a focus on how the community learns.

- Instructional designers must use methods of participatory design in which the worker participates in redesign practices with the designer.

Young (1993) described four broad tasks for the design of situated learning:

1. Selecting the situation: the general principle is to select the generator set of situations, which entail complex, realistic problem spaces that afford students to able detect the invariant concepts in the domain.

2. Providing scaffolding: students need to be active generators of both problems and solutions so that they can "crisscross the landscape of knowledge". The principle is "initially limit a novice's access to all the features of the context and the removing those constraints."

3. Determining and supporting the role of the teacher: in situated learning, students learn from different knowledge source distributed in the environment, e.g. the tools, the peers, themselves, the textbooks, and the teacher. The responsibility of the teacher is to constant asses the interaction of students and environment and to guide students to play attention to important attributes of the environment.

4. Assessing situated learning: Young pointed out several views of the assessment in situated learning:

The assessment methods should focus on "the process of learning, perception, and problem solving."

In designing a collaborative lesson in a classroom environment, some good organizational behavior must be displayed. Schell & Black (1997) created an environment to foster natural learning processes. Learners engaged in discussions simulated in group activities, verbalizing knowledge gained and comparing problem-solving approaches with that of experts. Courtney & Maben-Crouch (1996) found that learning transfers more easily in a natural learning environment. A natural learning environment engages learners in solving real life problems likely to be encountered on the job. Problem solving is collaborative with participants contributing to the dialogue and constructing novel solutions. Participants are encouraged by

instructors to engage in critical reflection, questioning the values and assumptions behind answers suggested by other learners. Knowledge is acquired by framing problems in terms of conditions likely to be encountered on the job.

The main elements of situated cognition are content, context, community, and participation that offer exciting opportunities for instructors to engage with learners in novel and meaningful ways. Situated cognition reminds us that adult learners are a rich and diverse source of stories and data that can transform the classroom from a source for transferring knowledge from instructor to learners to a resource for interpreting, challenging, and creating new knowledge. Interactions among the learners and the environment holds the promise of having learners directly intervene in and change the processes that surround their lives at home, in the community and at the workplace.

From the discussion above, Instructions in situated learning approach must be situated in an authentic context that resembles that of the classroom. The teacher should enrich the learning process by providing realistic experiences that are more easily transferred. Wilson (1993). This means that students process information by visualizing, hearing, reasoning and reflecting. Students then tend to learn more easily by having models to go by or imitate. In other words, teachers must create the classroom environment as homely as possible, whether it is a computerized set up or a physical set up. Lessons for example, can be conducted in the workshop, kitchen, garden or green house etc. However, it should be noted that all these settings need to portray exactly conditions that exist in a classroom learning environment. This kind of environment gives students the look and feel of being at home in a comfortable setting which allows them to feel and learn freely.

Following the use of teacher provided scaffolds, the educator may then have the students engage in cooperative learning. In this type of environment, students help fellow students in small group settings but still have some teacher assistance in the real context and culture. This can serve as a step in the process of decreasing the scaffolds provided by the educator and needed by students (Hartman, 2002).

Teachers have also used scaffolding to engage students in research work and learning. In this context, scaffolding facilitates organization of and focus for students' research (McKenzie, 2000).The structure and clearly defined expectations are the most important component of scaffolding in this context. The teachers provide clarity and support but the students construct the final result through their research. The scaffolding is secondary. The building is primary. (McKenzie, 1999), According to McKenzie, scaffolding and participation in the community of practice help learners in the following ways:

- Provides clear direction and reduces students' confusion – Educators anticipate problems that students might encounter and then develop step by step instructions, which explain what a student must do to meet expectations.
- Clarifies purpose – Scaffolding helps students understand why they are doing the work and why it is important.
- Keeps students on task – By providing structure, the scaffold lesson or research project, provides pathways for the learners. The student can make decisions about which path to choose or what things to explore along the path but they cannot wander off of the path, which is the designated task.
- Clarifies expectations and incorporates assessment and feedback –Expectations are clear from the beginning of the activity since examples of exemplary work, rules, and standards of excellence are shown to the students.

- Points students to worthy sources – Educators provide sources to reduce confusion, frustration, and time wasting. The students may then decide which of these sources to use.

- Reduces uncertainty, surprise, and disappointment – Educators test their lessons to determine possible problem areas and then refine the lesson to eliminate difficulties so that learning is maximized (McKenzie, 1999).

9.15 Weaknesses of Situated learning

Anderson, Reder & Simon (1996) argued that;

- Situated learning is a biased theory whose application and activities are bound to the specific situations in which they occur.

- Knowledge does transfer well between and among tasks.
- Teaching in abstract is ineffective but real life teaching is the best.
- Instruction must happen in complex social contexts.

However, Anderson et al (1996) further maintains that:

- Whether learning is bound to context or not depends on both the kind of learning and the way material is being presented.
- There is empirical evidence that successful transfer of knowledge happens between tasks and abstract instructions in the literature. Transfer depends on initial practice and the degree to which a successive task has with similar cognitive elements to a prior task.
- Abstract instruction can be made effective by combining it with concepts and concrete real life examples.

Anderson, Reder & Simons summarize their concerns when they said that: "What is needed to improve learning and teaching is to continue to deepen our research into the circumstances that determine how narrower or broader contexts are required and when attention to narrower or broader skills are optimal for effective and efficient learning" (Anderson etal, p.10). For example, as teachers, we must read widely and prepare lessons that would depict a real life situation. New teaching methodologies must be embraced any time they are introduced in system.

9.16Activity

1. Discuss four major premises guiding the classroom activities using situated learning experience.
2. Explain three characteristics of the community of practice.
3. What are the weaknesses of the situated learning theory?

9.17 Reflection

In your own understanding, do you think situated learning theory can be applied in the classroom to improve teaching and learning?

9.18 Invitational Learning Theory

We have discussed situated learning theory and now let us have a look at invitational learning theory. It may be interesting for you to note that, Invitational Learning Theory is a humanistic theory because it supports perception as a determinant of behaviour and the growth of the individual in worthwhile endeavour.

This unit will look at, terminologies, historical background of William Purkey's assumptions, how the theory works, the Five Ps and the relevance of this theory to Zambia, among others.

9.19 Historical background

William Watson Purkey was born on August 22, 1929. He is an author and professor emeritus at the University of North Carolina at Greensboro. Invitation theory was firstly introduced by William Purkey in 1978. He is the developer of a model of communication called "invitational Education". His professional career ranges from, service as a public school teacher, a U.S park ranger and a bomb disposal specialist in the US Air Force.

Purkey received his bachelors, masters and doctorate from the University of Virginia. He was tenured full professor at the University of Florida. During his career, he received awards that included the University of Florida "Award for Instructor Excellence". "Good Teaching Award". Outstanding Teacher award". "The Board of Governors Award for Excellence in Teaching" and the "Excellence in Education Award" from the Royal Conservatory of Music for his work in learning the arts. Other authors, such as Novak (2000), have expanded the application of invitational theory and application.

It is obvious that invitational theory is an evolving rather than static conceptual model.

Invitational theory has been most often applied to the concerns of schools: teaching, counselling, staff and administrative functioning. It appears that invitational education first focused on how to develop schools that encouraged positive self-concept development in children and increased equality of staff and teacher functioning.

In 1990, the invitational model became a structure for research and practice in changing school climate, (Purkey & Lehr, 1996). Specific plans and programs developed at the University of North Carolina at Greensboro were designed to improve school environments enhance selfconcept of staff and create a more positive climate for learning. For example, "the Five-Relays" (Purkey & Lehr, 1996) describes in detail how a school can examine the programs, policies, people, processes and places characteristic of the school and make changes that improve the quality of learning and student development.

Jouard (1971) outlined that the invitational model had its origin in the study of self-concept and perceptual psychology. As the importance of self-concept and perception became more accepted as important for behaviour, invitational theory emerged. It was developed as a method of creating environments in which self-concept could be enhanced and human potential more fully developed.

It is a self-correcting theory of practice based on ideas borrowed from John Dewey's "democratic ethos" Carl Rogers "client-cantered psychotherapy, Sidney Jourard's selfdisclosure, "Albert Bandura's self-efficacy" and Martin Seligman's learned optimism. Based on these and other research-based concepts, Purkey & Novak (1996), Purkey & Schmidt (1996) and colleagues have developed a model for understanding and communicating messages planned to summon forth the realization of human potential as well as for identifying and changing those forces that destroy potential. Perceptual psychology postulates that each person creates their own reality through their perceptions of what they believe to be real (Combs, Richards & Richards, 1988; Combs & Gonzales, 1994; Kelly, 1955, 1963; Jourard

,1971). Furthermore, a person's behaviour is contingent on how an individual perceives and interprets his/ her experiences. Purkey and Novak (1996) identified three assumptions of the perceptual psychology approach that are relevant to working with individuals in a school setting:

Behaviour is based on perception. Individuals behave according to their subjective perception of the environment (internal and external)

Perceptions are learned. Ones' interpretation of the environment is learned and therefore can be unlearned given new information and new experiences. This particular assumption embraces the idea that a change in perception will bring about a change in behaviour.

Perceptions can be reflected upon. Being aware of one's past and present perception and being able to go beyond them allows for further development and understanding of oneself other, and the world.

Accordingly, from the point of view of perceptual psychology it is clear that to understand an individual's behaviour we need to know how that individual perceives and interprets his /her life experiences. An individual's personal interpretation is more important than "objective reality" because an individual respond to their perception of reality and not to reality itself (Purkey & Schmidt, 1996, Seligman, 1991).

"Self-concept consists of each person's unique system of perceptions about the self in relation to one's environment. A person seeks to maintain a consistent self-concept by assimilating or rejecting perceptions that do or do not fit preconceptions, but a person's self-concept can change and develop as a result of inviting or encouraging acts"(Jourard,1971:p25)

Concepts and Assumptions of Invitational Learning Theory

The following are the basic assumptions of Invitational Theory and Practice (ITP)

- People are able, valuable, and capable of self-direction and should be treated accordingly
- Helping is a cooperative, collaborative alliance in which process is as important as product

- People possess relatively untapped potential in all areas of human development

- Human potential can best be realized by places and programs that are intentionally designed to invite development and by people who consistently seek to realize this potential in themselves and others, personally and professionally.

Also Invitation theory is based on four operations that give consistency and direction for action: These are respect, trust, optimism, and intentionality.

Trust that one will find his/ her own best way of accomplishing things, respect for other people since they are able, valuable and responsible, optimism about people as possessing practically unlimited potential in all areas of human endeavour and intentionality which is a purposeful act aimed at offering something beneficial to others. Purkey & Novak (1996). Invitational Education is an important and valid theoretical model for application by teachers. It is a theory that addresses the total educational environment: social, physical, cognitive, spiritual, and emotional. Invitational Educational is democratically oriented, perceptually anchored, self-concept approach to the educative process (Purkey & Novak, 1996).

How the theory works and the five Ps

The human potential should be developed through the educational process, which is characterized by the five Ps. The five Ps represent environmental factors which influence one's success or failure in the educational process, depending on how inviting they are and these are people, places, policies, programs and processes. People: refers to teachers and support staff in the school, Places: relates to the physical aspects of the school.

Policies: refers to the procedures, codes, rules written and unwritten, used to regulate the ongoing functions of individuals and organizations.

Programs: refers to the curriculum for students to develop academically, physically and socially in the inviting environment.

Processes: refers to such issues as cooperative spirit, democratic activities, values and attitudes of students, teachers, administrators and support staff. (Purkey & Novak, 1996).

You should understand that invitation education emphasizes that human potential can best be realized by creating and maintaining, places, policies, processes, and programs, specifically designed to invite development and by people who are intentionally inviting with themselves and others, personally and professionally, (Cloer, & Alexander, 1992).

You also need to understand that according to Purkey and Fuller(1995), Invitation learning emphasizes that teachers beliefs and attitudes about people including trust, respect, optimism and intentionality are paramount in enabling the learner become his/her best self. However, do you also believe this?

In which way do you think School should be an inviting place for effective teaching and learning to take place?

It is important to for you to understand how the following five Ps play an important role in enhancing teaching and learning.

Relevance to Zambia

Zambia is a liberal democracy and comprises of people of different tribes and ethnicity. A democratic society is ethically committed to seeing all people as able, valuable, and responsible, to valuing cooperation and collaboration, to viewing process as product in the marking, and to developing untapped possibilities in all worthwhile areas of human endeavour.

A country with so much socio-cultural diversity like Zambia needs to embrace invitational education in order to inculcate values of respect, trustworthiness, caring, optimism and intentionality in the young generation. The growing population of young Zambians needs to understand the tenets of effective communication that sends positive signal that summons the realization of potentialities of all citizens in order for them to develop in all areas of human endeavour. The earlier the young Zambians learn to be both inviting individuals and professionals, and to create inviting environments the better for the future of our great nation because all schools will be inviting environment in which all citizens are summoned to realize their full potential.

Invitational education expands the education process by applying steady and continuous pressure from a number of points. Rather than relying on one program, one policy, or one process, Invitational Learning Theory addresses the total spirit within a school. Juhnke, & Purkey (1995) state that invitational learning is concerned with more than grades, attendance, academic achievement, discipline, and test scores, and even student esteem. It is concerned with the skills of becoming a decent and productive citizen in a democratic society.

Invitational Education provides a framework for making school a more exciting, satisfying, and enriching experience for everyone – all pupils, all teachers and support staff, and all visitors. Its goal is to transform the fundamental character of the school.

9.20 Terminologies

1. Unconditional stimulus: Is a stimulus that automatically produces an emotional or physiological response.
2. Positive reinforcement: Involves strengthening behavior by presenting a desired stimulus after the behavior.
3. Punishment: Is generally a process that weaken or suppresses behavior.

9. 21 Activity

1. Discuss briefly, the historical background of invitational learning theory according to Purkey
2. Explain the assumptions of invitational learning theory
3. Analyse the five Ps of invitational learning theory and the role they play in teaching and learning.

9. 22 Reflection

In your understanding, how effective is invitational learning theory in improving teaching and learning?

9.23 Summary

In this unit you have learned different theories explaining how children learn. Under classical condition you have learnt that children learn through association while operant conditioning argues that children learn through consequences. Observational learning on the other hand, states that children learn better when they see what they are learning. You also learnt in this unit through the situated learning theory which states that children learn better when they are taught in context where they apply what they have learnt after the lesson. Finally, the invitational learning theory emphasizes that schools have to be inviting or attractive in order to enhance learning.

UNIT 10: THE HUMAN INTELLIGENCE

10.1 Introduction

Many people think that intelligence is primarily the ability to think logically. Psychologist Howard Gardner, (1983), considered this view of intelligence to be inadequate because it omits many other important skills. In this unit, we shall look at, nature, theories, measurement, uses and factors that influence intelligence.

10.2 Learning Outcomes

By the end of this unit, you are expected to;

- explain the nature of human Intelligence
- analyze and apply theories of human intelligence in the day today teaching and learning process
- Illustrate how to measure human intelligence (IQ)
- explain uses of intelligence tests
- explain factors that influence human intelligence

10.3 Time frame

You need about six (6) hours per week interacting with this material.

10.4 Content

- Views on the Nature of Human Intelligence
- The G- Factor
- Cattell-Horn's Theory of Fluid and Crystallized Intelligence
- Thurnstone 's Primary mental Abilities
- Harward Gardner' Mental Abilities
- Sternberg's Triarch Theory
- Development of Intelligence Tests
- David Wechsler' Test
- Characteristics of a good test

- The Role of Heredity and Environment in Human Intelligence

10.5 Views on the Nature of Human Intelligence

The term intelligence is difficult to define because it is expressed in many ways and it takes many forms. Experts define intelligence as an individual's ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning and to overcome obstacles by careful thought.

Experts ask many questions such as:

- Is intelligence a single characteristic or capability?
- Does human intelligence take many capabilities?
- Are there certain common factors that underline intelligence?

What question would you ask yourself about what intelligence is? Can you define intelligence in your own words?

10.6 The G- Factor

This approach was originated by Charles Spearman (1863-11945).

Spear man observed that people who are bright in one area are usually bright in another area as well. People tend to be generally intelligent. He concluded that human intelligence is composed of the general ability or the G-Factor. This G-Factor underlines all intellectual functions which represents broad reasoning and problem solving abilities. Spearman's contribution can be seen in the IQ score. He viewed human intelligence as a single characteristic. Do you disagree with Spearman's understanding of intelligence? If you do what do you think are its weaknesses?

10.7 Cattell-Horn's Theory of Fluid and Crystallized Intelligence

Cattell and Horn also came up with their own explanation of intelligence. They came up with what they called fluid and crystalized intelligence. The fluid intelligence is the mental efficiency that is culture free and enables the individual to think logically and solve problems in novel

situations independent of acquired knowledge. It involves the ability to identify patterns and relationships that under novel problems and to extrapolate these findings using logic. Crystallized intelligence is defined as the ability to use learned knowledge and experience. In simpler terms we can say crystallized intelligence comes as people get socialised, it comes with experience in other words we can say crystallised intelligence is wisdom that people acquire as they grow. It is not inherited. Fluid intelligence on the other had is inherited and it develops or improves as people grow. In other words fluid intelligence is connected to brain development this is the intelligence that is expected to be improving as a child is growing. The older the child is, the better the thinking. You must also know that fluid intelligence grows rapidly as the child is growing and declines with age while crystallized intelligence comes in later as the child is growing.

10.8 Thurstone's Primary Mental Abilities

Other researchers concluded that intelligence was composed of many separate abilities and theses operated separately. Thurston rejected Spearman's G-Factor and he suggested that intelligence was composed of 7 distinct primary mental abilities. He believed that each of these abilities was relatively independent element intelligence. These include:

1. Verbal comprehension- this has to do with one's understanding of ideas and meaning
2. Numerical ability-this has to do with use of numbers at high speed
3. Spatial orientation – this involves being aware of different situations, including self and others. This is the eye of the mind it is the same as creativity.
4. Perceptual speed-quickness in perceiving visual details
5. Word frequency –ability to quickly generate and manipulate a large number of words
6. Memory-ability to encode, store and retrieve information

7. Reasoning- ability to think both inductively and deductively

Which type of intelligence do you think you have? Explain what you do which makes you believe that you have that type of intelligence.

Thurston maintained that all intelligence activities do involve one or more of these intellectual abilities, do you agree with this assertion? He argued that a single score conceals more than it reveals. The profile showing the seven mental abilities reflect the scenario that the individual may have strengths and weaknesses in any of the areas. This is a multi-factor view of human intelligence.

10.9 Reflection

What type of intelligence do you think engineers and lawyers have?

10.10 Harward Gardner' Mental Abilities

Some psychologists say there are different types of intelligence. Thurston, Gardner denies the existence of the G-Factor. He believed that mental abilities are independent and distinct and cannot be accurately reflected in a single IQ score. He defines intelligence as the ability to solve problem or to create products that are valued within one or more cultural settings. He proposed 8 independent forms of intelligence as follows:

1. Linguistic intelligence- Language skills

2. Logical Mathematical intelligence – ability to handle numerical problems

3. Musical intelligence- appreciation of the forms of musical expression

4. Spatial intelligence- skills used by people like painters, actors, designers recreate and manipulate forms of art

5. Inter-personal intelligence-capabilities to discern and respond appropriately to moods and desires of other people.

6. Intra-personal intelligence-ability to understand one's own feelings and behaviour

7. Naturalistic –ability to recognise categories and draw upon certain features of the environment

8. Bodily kinaesthetic- ability to use one's body well e.g. Dancers, acrobatics, etc.

Gardner's claim that all these eight categories of intelligence are of equal importance is most controversial. Critiques say that different cultures assign importance to the eight types of intelligence. They doubt if all these intelligences are of equal value to education (life). Despite the criticism, all these intelligences are recognised and valued in much different cultures. What do you think are similarities between Thurston' and Gardner' theory?

10.12 Sternberg's Triarch Theory

Sternberg came up with three basic types of intelligence namely;

1. Componential or analytic intelligence: involves the ability to think critically and analytically. Individuals who are high in this dimension usually excel on standard test of academic nature and make excellent students. He claims that the tradition IQ we know measures analytical intelligence only.

2. Experiential or creative intelligence: individuals who are high in this dimension have the ability to formulate new ideas. Furthermore, individuals who are high in this area focus on information that is crucial in a situation. They can combine unrelated information. Such people are able to solve unusual problems. Can find a creative way of performing common daily tasks. It is usually found among the genius or gifted individuals

3. Contextual / practical intelligence: individuals who are high in this area have ability to adapt to a changing environment and shape the environment to make the most of the opportunities. There is evidence which suggests that practical intelligence is different from componential intelligence. Some drawing evidence suggests that componential intelligence may pick quite early in life while the practical components continue to grow in life. Evidence shows

that there are people who can show practical intelligence but do not score above average in an academic test.

10.13 Development of Intelligence Tests

In 1904, Alfred Binet was confronted with the following problem by the Minister of Public Instruction in Paris: How can children who will need special instruction and extra help are identified early in their schools, before they fail regular classes? Binet was also a political activist, who was very concerned with the rights of children. He believed that having an objective measure of learning ability could protect children from poor families who might be forced to leave school because they were the victims of discrimination and assumed to be slow learners. Binet and Simon wanted to measure not only merely school achievement, but the intellectual skills which children needed to do well in school. After trying many different tests and eliminating items that did not discriminate between successful and unsuccessful learners, Binet and Simon finally identified 58 tests, several for each group from 3 to 13. Benet's tests allowed the examiner to determine a mental age for a child. A child who succeeded on the items passed by most six-year-olds, for example was considered to have a mental age of six, whether the child was actually four, six or eight years old.

The concept of intelligence quotient (IQ), was added after Binet test. An IQ score was computed by comparing the mental –age score to the person's actual chronological age. The formula was:

Intelligence Quotient=Mental Age / Chronological Age X100

So a child who had a mental age of six years and a chronological age of eight years would have IQ of 75 as illustrated below:

6/8x100=600/8=75

The early Stanford- Binet test has been revised five times, most recently in 2003 (Roid, 2003). The practice of computing a mental age has proven to be problematic because IQ score calculated on the basis of mental age do not have the same meaning as children get older. The concept of deviation IQ was introduced. The deviation IQ score is a number that tells exactly

how much above or below the average a person scored on the test compared to others in the same age group.

10.14 David Wechsler' Test

He developed one of the intelligence tests to measure separate abilities. His test is ranked as one of the best known intelligence tests. He developed this test because he thought the Stanford – Binet's intelligence scale was appropriate to adults. He thought that Stanford Binet's intelligence test depended too heavily on one's language ability. Hence he developed 2 scales of measurement, one for adults and another one for children. The one for adults is called WAIS- (Wechsler Adult, Intelligence Scale). The scale for children was known as WISC (Wechsler Intelligence Scale for Children). The adult scale has two parts, namely:

1. Verbal scale
2. Performance scale.

In the verbal scale, there is a sub-test which taps knowledge, arithmetic, similarities, vocabulary, language and comprehension. Performance scale has

1. Manipulation of objects
2. Digits and symbols
3. Picture completion
4. Block design
5. Picture arrangements
6. Object assembly

These sub-tests yield different scores from the verbal IQ score and the performance IQ scores. Combining these two tests can give us a global IQ, since it gives different scores, this scale will

provide an examination of a clear picture of one's intellectual abilities in terms of strengths and weaknesses, in this sense, and one can say the test has a practical value.

If a person's performs well on practical activities and does badly on the verbal activities, that would be an indication that they are un familiar with that culture, but does not mean that one is deficient in that area. Wechsler believed that IQ scores could be strongly affected by the factors such as personality, motivation and culture. The IQ score is compared to the other individuals who have taken that test too.

WAIS was revised in 1981and because of the revision, today it is referred to as WAIS-R. It is meant for people who are 16 years and above. Later on Wechsler made a scale for Pre-school and Primary scale called Wechsler Pre and Primary School Intelligence Scale (WPPSIS).

10.15 Characteristics of a good test

In order to be considered scientifically accepted, any psychological test must fulfil three requirements, namely:

1. Standardization

2. Reliability

3. Validity

Reliability

Means that the test must be consistent produce similar scores when administered by two different examiners or given on different occasions; a test and a retest score should be slightly similar. If the score change a great deal, from one test to retest score, it means that one will have no faith in the test.

Validity

Means that the test measures what it is supposed to measure. One way in which you can prove the validity of the test is by demonstrating its validity value. For example, if your test is measuring mechanic work people who score highly should be good at mechanics

Standardization

Means that the test is given to a large number of subjects who will be the representative of the people whose test is designed for. All these subjects should take the same version of the test and should be put under the same conditions. The scores of this group would help to find the norm or standards. Intelligence tests are considered useful because they do a good job on predicting how people would perform in situation that would require intelligence like school and job.

10.16 The Role of Heredity and Environment in Human Intelligence

Intelligence is determined by both heredity and environment. There is evidence to support this conclusion. Studies supporting heredity influence on intelligence included family study, adopted children and twin study.

Studies to support environmental influence on intelligence included deprivation environment and enriching environment.

1. Analyze human intelligence according to Gardner and Sternberg

2. Explain the characteristics of a good intelligence test

3. Explain some factors that influence human intelligence.

10.17 Terminologies

1. Crystalized intelligence: Is wisdom that people acquire as they grow.
2. Perceptual speed: Is quickness in perceiving visual details.
3. Spatial relations: This is the type of intelligence to do with creativity.

10.18 Summary

In this unit we have discussed different theories of intelligence. By this time it should be clear that learners have different abilities that you as a teacher must pay attention to. The history of testing has also been covered. Calculation of the IQ and factors that influence intelligence have also been clarified. We hope that with this knowledge you will be able to appreciate learners of different abilities.

UNIT 11: HUMAN MEMORY

11.1 Introduction

You are aware that learning occupies a very important place in one's life. It is the bases of our survival as well as the development and progress of the society. However, our best effort in learning may turn into futile exercise if the products of learning are not utilized by us soon after or at a later stage. For us to make use of the material learnt, it must remain in our mind, stored up somewhere to be used when the need arises. The ability or power of our mind to store the past experiences of learning and utilizing them at a later stage is known as "memory"

11.2 Learning Outcomes

By the end of this unit, you are expected to;

- explain the art of remembering.
- explain three kinds of memory.
- discuss contents of the long term memory.
- analyze theories of forgetting.
- explain how to improve memory.

11.3 Time frame

You need about six (6) hours per week interacting with this material.

11.4 Content

- Memory Process
- The Three Kinds of Memory
- Theories of Forgetting
- Improving memory

11.5 Memory Process

It is important for you to understand that the art of remembering in human beings requires the completion of three processes namely Encoding, Storage and Retrieval:

Encoding

This takes place during the presentation of information. It involves converting information obtained from the environment into psychological formats so that it could be remembered.

Information may be encoded in the following forms;

- Acoustic code – encoding information into sounds.
- Semantic code encoding according to meaning.
- Visual code – encoding into pictures and images

Storage

This is the second process and involves keeping or maintaining information in memory. Storage may be for a few seconds or many years. Keeping information in memory for a long time depends on rehearsal. **Retrieval**

This is the final process; it happens when the stored information is brought back to memory. Memory failure can result from failure of any one of the above processes.

We have looked at the art of remembering and now let us consider the three kinds of memory system.

11.6 The Three Kinds of Memory

Sensory Memory

You may be aware that the sensory memory holds sensory information very briefly.

Stimuli from the environment constantly bombard our body's mechanism through sense organs such as sight, hearing, tasting, smelling, and feeling. The sensory, memory is the initial process that transforms these incoming stimuli into information so that we can make sense of them.

What do you think is the capacity of the sensory memory?

Let us look at it in more detail

Capacity, Duration and Contents of Sensory Memory

The capacity of sensory memory is very large and can take in more information than we can possibly handle at once. Information in sensory memory lasts between one and three seconds

The information content of sensory memory resembles the sensations from the original stimuli. The visual sensations are coded briefly by the sensory register as images like photographs. While the auditory sensation is coded as sound patterns, similar to echoes. For a second, or so a wealth of data from sensory experiences remains intact. In these movements, we have a brief chance to select and organize information for further processing. Failure to process the information will mean that it is lost. So perception and attention are critical at this stage to make sure that important aspects are registered.

Short Term Memory

The short term memory system holds information for about 15 to 20 seconds. The short term memory means just storing information for immediate memory that can be held for about 15 – 20 seconds (Baddeley, 2001). Early experiments suggest that the capacity of short term memory is only about five to nine separate new items at once (Miller, 1956). This is sometimes known as 'Miller's magic seven' as most people are able to store approximately seven items at a time.

A current view of working 'memory is that it is composed of at least three elements; namely;

- The central executive, which controls attention and other mental resources
- The phonological loop; that stores verbal and acoustic information
- Visual spatial sketchpad which temporally stores visual and spatial information (Gather Cole, et al 2004). memory systems, now let us consider the long term memory.

The Long Term Memory

The short term memory (working memory) holds the information that is currently activated, such as telephone number you have just found and you are about to dial. The long term memory on the other hand holds the information that is well learnt, such as all the telephone numbers you know. To move information from the short term memory to the long term memory it requires more time and effort as well.

It is important for you to understand that while the capacity of the short term memory is limited, the capacity of the long term memory is unlimited.

Having looked at all the three memory systems let us now consider the contents of the long term memory.

In your own understanding, what do you think are the contents of the long term memory?

Contents of the Long Term Memory (LTM)

Declarative memory

Verbal information, facts, as well as personal life events that can be brought to mind verbally or in the form of images, and then declared or stated, two are stored in the declarative memory. Basically there are two types of declarative memory, namely:

- Semantic memory, for storing general knowledge and objective facts.
- Episodic memory for storing daily personal experiences

Non Declarative Memory

 Procedural memory is responsible for storing skills and knowledge that can be demonstrated Paivo, 1991 suggest that information is stored in long term memory as either visual images or verbal units.

Having looked at the contents of the long term memory, let us now consider the theories of forgetting.

In your own understanding, what do you think causes people to forget?

11.7 Theories of Forgetting

Encoding failure

A considerable number of psychologists have concluded that retrieval is the key process in remembering and forgetting. Forgetting is viewed as failure to retrieve information stored in memory due to poor encoding.

Motivated forgetting or repression

This is the deliberate forgetting of something because that thing brings pain when remembered unpleasant memories are pushed into the unconscious mind as a way of getting rid of them.

Fading

Information that is stored in long term memory and not being used for some time may fade away, and it may be difficult to remember.

Interference

This occurs when remembering certain information is hampered by the presence of other information and it is in two types namely;

(a) Retroactive, -when new learning experience interferes with the memory of the old learning and (b) Proactive, - when old learning interferes with the ability to remember new learning experiences.

We have looked at the theories of forgetting and now let us consider how memory can be improved among learners.

11.8 Improving memory

In your own understanding, do you think it is possible to improve human memory?

Here are some strategies that you can use in order to improve human memory:

• Rehearsal, there are two types of rehearsal that learners can use to improve memory these are:

(a) Maintenance rehearsal, which involves repeating the information in your mind. As long as you repeat the information, it can be maintained in your working memory.

(b) Elaborative rehearsal, which involves connecting the information you are trying to remember with something you already know.

Other strategies include the following:

(1) Chunking, grouping individual bits of data into meaningful larger units e.g. 354870 can be easily remembered if put into two chunks 354 870.

(2) Organization, well organized material is easy to learn and remember.

(3) Use spreading activation, this means remembering one bit of information activates (stimulates) recall of associated information

(4) Use Reconstruction– recreating material or information based on existing knowledge.

(5) Use Mnemonics/Acronym- encourage the use of mnemonics and acronyms.

(6) Use visual aids

(7) Focus attention on what to learn and avoid distracters.

11.9 Terminologies

1. Acoustic code-encoding information into sounds.

2. Episodic memory: Is the type of memory which stores a person's daily personal experience.
3. Retroactive: Is when new learning experiences interfere with the memory of the old learning.

11.10Activity

1. Explain three kinds of memory system and their storage capacity
2. Discuss theories of forgetting
3. Explain causes of memory failure.

11.11 Reflection

In your own understanding do you think human memory can be improved? If yes how and if your answer is no why?

11.10 Summary

In this unit, you have learnt processes of the art of remembering, memory systems. Theories of forgetting, and we have also presented to you strategies of improving memories of learners. It is hoped that by this time you are well place to help people improve their memories as you know that with good memory human being cannot progress.

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