**CHALIMBANA UNIVERSITY**

**DIRECTORATE OF DISTANCE EDUCATION**

**FNS 3602 HUMAN DEVELOPMENT**

**SCHOOL OF PRACTICAL AND PRACTICAL SKILLS**

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**AUTHORS : MOONO MAURICE**

**EDWARD MAKUMBA**

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First Edition

## ACKNOWLEDGEMENT

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**UNIT THREE STAGES OF HUMAN DEVELOPMENT I: CONCEPTION TO CHILDHOOD**

<div align="center">**MODULE OVERVIEW**</div>

**Introduction**

This course provides a framework for understanding life span development. It discusses theories of child development and clearly outlines development at the following levels; infancy, early childhood, middle childhood and adolescence stage. This course generally outlines child development from inception to adulthood.

**Rationale**

This course will give you the understanding of how children develop. It will also enable appropriate developmental milestone and every stage of development, further this course will help you diagnose children that may have learning of developmental challenges.

**Course aims**

The aim of this course is to equip students with an understanding life span development of human beings from conception to old age.

**Learning Outcomes**

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

- describe the concepts related to the study of life span development
- explain development throughout the life span in relation to other cultures and more
- specifically, to the Zambian context
- examine the role of parents on child development
- analyze various theories of child development

**Summary**

This module covers human development from conception to death.

**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 familiarize 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 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

Berk, L. (2004). Development through the life Span: Allyn and Bacon

Hurlock, E.B. (2006) Developmental Psychology: A Lifespan Approach. New York:

McGraw-Hill Companies

Kail, R. & Cavanaugh, R. (2010). Human Development: A Life Span View (5th Ed):

Wadsworth, Cengage Learning.

Recommended Readings

Papalia. (2004). Human Development: McGraw Hill Education

Santrock, J. W. (2006). Life-Span Development: McGraw-Hill

# UNIT ONE: BASIC PROCESSES OF GROWTH AND DEVELOPMENT

**Contents**

- Developmental Psychology
- Development
- Developmental Processes
- General Principles of Development
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.O Introduction

The study of human development from conception to adulthood is the concern of developmental

psychology. The teacher should have the knowledge of how children grow and develop in order to guide and shape their future development. It is at the early formative years that the child's personality and behaviour are determined.

The child is a product of both nature and nurture. This implies that the hereditary factors interplay with the environmental factors to determine how the child grows and develops.

In this unit, we shall discuss the basic processes of growth and development. We shall also briefly discuss the principles of growth and development and their educational implications.

## 1.1 Learning Outcomes

By the end of this Unit, you should be able to:

• Define development and developmental psychology;

• Describe development processes

• Enumerate and explain the general principles of development.

## 3.0 Main Content

3.1 Development

This refers to qualitative changes in an organism. It is a progressive series of orderly and coherent changes in human beings. It is progressive in the sense that the changes are distinctional and lead to moving forward. It is orderly and coherent because there is a definite relationship between a given stage and the stages which follow it.

Development can be described as a complex process of integrating many structures and functions in an organism. As a result of the integration, changes are dependent upon what preceded them and they in turn affect what comes after. The qualitative changes that come upon an organism are as a result of the accumulation of experiences. The experiences derive from hereditary and

environmental influences. Thus, individuals reflect on their experiences and become more refined and matured in dealing with new and novel situations.

## 3.2 Developmental Psychology

This is an aspect of psychology which deals with the development, growth and behaviour in human beings right from the time of conception to the period of adolescence when most of the functions of the body become matured. It also deals with the factors which determine what a child will become in future. It is therefore a scientific approach which aims to explain how children and adults change over time. The aims of developmental psychology are to describe, explain, and to optimize development

## 3.3 Developmental Processes

(1) Growth

Growth refers to quantitative changes in an organism. This usually involves permanent increase in size and structure of organisms. These quantitative changes are both physical and mental. These include physical changes in height, weight, girth, internal organs and mental changes in memory, reasoning, perception and creative imagination.

All these changes make the child to be physically grown and mentally responsive. The quantitative changes in height, weight, girth and others are as a result of multiple cell divisions called MITOSIS (Mitotic Cell Division). This usually involves body cells called Somatic Cells (Vegetative cells). Somatic cells always have 23 pairs of Chromosome (i.e. 46) called the Diploid number (2n).

In the process of Mitosis, one cell divides into two, then into four, eight etc. Each daughter cell is always similar in every way to the parent cell and they always have the Diploid number (2n) of Chromosomes.
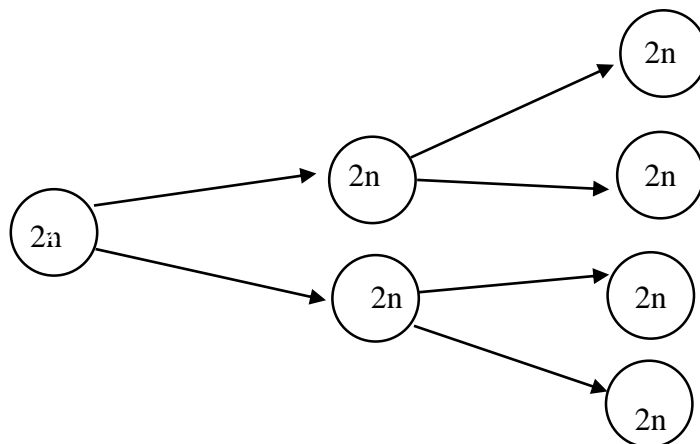
Mitosis

n = 23 Chromosomes

(2) Maturation

Maturation is the process of gradual unfolding of the inborn potentialities of traits present in the individual because of hereditary endowment. According to Gessel, "Maturation is the net sum of the effects operating in a self-limited life-cycle". This definition connotes individual differences.

Maturation goes along with physical growth and the development of the central nervous system. Time and experience are also inevitable. Maturation is a function of two major factors, which are in turn dependent on time and experience viz:

(i) Phylogenetic Functions

These are functions, which are common to all members of a species. These include crawling, creeping, sitting, walking etc.

Experience is not necessary to these functions as they are time, age and physical and mental maturity dependent.

(ii) Ontogenetic Functions

These depend on experience. They are functions common to individuals. Some of these functions are swimming, climbing, painting, speech, etc. Here, without experience or training, development cannot take place.

It should be noted that no hereditary tendency can mature fully without environmental support i.e. environment influences development.

**Activity I**

Distinguish between maturation, growth and development.

3.4 General Principles of Development

Every species follows a pattern of development peculiar to that species. One of the reasons why the development of human beings is so similar is because our common specifies heredity (DNA) guides all of us through many of the same developmental changes at about the same points in our lives

Prenatal and postnatal developments have a genetic sequence with certain traits or personal qualities appearing at fixed intervals.

Genetic study of children over a period of time has shown that development follows a fixed pattern and the pattern is influenced by experience. Every child has a unique pattern of growth. Such

patterns are however, a part of an established order of nature. The identified principles that are true to human development are referred to as the "general principles of development".

1. Cephalocaudal Growth Patterns

According to this principle, development spread over the body from head to foot. This means that improvement in structures and functions come first in the head area, then in the trunk and leg region. The organs in the area of the head develop first and mature first before the organs in other areas. The head develops and achieves its final forms before the trunk and the legs. The child is first able to see, hear sound and jingles before using his hands and legs in a meaningful way.

2. Proxismodistal Growth Pattern

This principle holds that development proceeds from the central axis of the body towards the extremities.

In the Foetus, the head and the trunk are well developed before the rudimentary limb buds appear. The arm buds gradually appear and develop into the hands and lastly fingers before his hands and fingers respectively and can use the latter as a unit before he/she can control the movements of his/her fingers. Structure therefore precedes function.

3. The Principle of Differentiation

Development proceeds from simple to complex, from homogenous to heterogeneous and from general to specific (from general and diffuse responses to more differentiated and specific ones). Thus, coordination of large muscle groups precedes fine muscle movements.

At conception, the mother egg-cell and the sperm from the father fuse to form the Zygote.

The Zygote itself contains 23 pairs of chromosomes. It starts to divide itself into 2 then 4 to 8 up to billions of cells that form a body, be it circulatory, muscular, nervous or skeletal.

In both mental and motor responses, general activities always precede specific activities. In any postnatal life, the infant can move its whole body but incapable of specific responses.


The baby can wave his arms, in general movement before he/she is capable of any specific reaching. In speech, the baby learns the general words before specific words e.g. he/she learns to use the word toy before learning to call each toy by its name. He/she calls every man "Daddy". In writing the child learns to hold a big object before a pencil. He/she learns to make a circle before triangle.

4. The Principle of Asynchronous Growth or Split Growth

The principle holds that the changes that occur in the body proportion are due to Asynchronous or Split Growth. This means that the different parts of the body have their own period of rapid and slow growth; and that each reaches its own mature size at its own time. Growth in all parts of the body is however continuous and concurrent e.g. a child's brain does not stop growing while his/her muscles are growing (Growth is continuous and not salutatory though there is asynchronies).

Asynchronous growth is particularly obvious when different parts of the body are compared e.g. the muscles, bones, lungs and the genitals increase approximately 20 times during the growth years, while the eyes and the brain which are relatively more developed at birth increase much less. The eye balls complete their growth during the first 5 years and the brain also completes its growth during the first 10 years but the heart and some other internal organs requires more than 20 years to complete their growth. Organs-systems and function do not proceed at the same rate throughout development.

Though growth and development usually proceed in an orderly sequence, the rate of growth often differs from one organ and system to the other and from one period to another. During childhood, the development of the genitals is slow but very fast during adolescence.

5. Principles of Discontinuity of Growth

This principle posits that the rate of growth changes at different periods. There are periods of acceleration and decelerations of growth.

During the first 9 months in the womb the growth is very fast. The child develops from a microscopically small sperm cell to an infant of about 3kg mass. The growth is mainly physiological and consists of all bodily structures.

For the first 14 days (during infancy) the growth is temporarily at a standstill. It is a period when the new-born baby tries to adjust itself to a completely new environment outside the mother's womb.

From babyhood until about 2-3 years of middle childhood up till the time of puberty, growth is slow. Puberty changes are as a result of environment and individual differences. There is a period of growth spur before adolescence.

From puberty till the age of 15 or 16 years, growth is fast. This period is followed by gradual stability up to the time of maturity.

In brief, there are four stages of growth comprising 2 rapid and 2 slow stages viz:


(a) From birth – 2 years - Rapid growth

(b) From 2 years to Puberty - Slow growth

(c) Puberty – 16 years - Rapid growth

(d) 16 years – Maturity - Growth is slow.

6. Principle of Complexity of Growth

Growth is an extremely complex process. It has different collective aspects. It is complex because what happens to one area affects other areas. The effect of this is that it is not easy to specify causal relationships since there can be other causes in other areas i.e. causes for growth retardation in a child may be traced to reasons other than malnutrition.

7. Structure Generally Precedes Function

It may be because of emotional stress, illness, social isolation or physical harm. All physical components of the body including the brain usually mature and get ready before they can be functional. Before any organ can be used by the child, such an organ must be physically and physiologically ready before they can perform developmental tasks.

8. Principle of Uniqueness of Individuals

The principle asserts that every individual is unique; that there are no two people that are exactly alike. Every child's pattern and rate of growth is peculiar to him or her. We may say that an average age for a child to walk is 12 months, yet some children walk later or earlier than this. Average is therefore theoretical however useful it may be.

Among twins of the same background, there are still some obvious differences. One may be more active than the other. Uniqueness occurs in either specific, general, sensitivity or vigour. By sensitivity we mean overall reaction to stimuli. This is why homozygotic twins of the same background could be different.

Some children like being quiet, others respond to stimuli gradually and yet others respond very fast. This gives rise to individuality in the classroom. Some children are more active and very vocal while others are quiet and calm.

9. Modifiability of Rates and Patterns of Growth

The view of this principle is that growth is natural but the rate and pattern of growth can be modified by various factors and techniques.

Some of these factors are:

1. Nutrition and Drug taken by the mother.

2. Environmental Stimulation.

3. Opportunity to Learn.

4. Illness and Disease.

5. Genetic aspect (Mutational changes).

The presence or absence of some of these factors can retard the rate and pattern of growth.

3.4.1 Implications of the Growth and Development of Principles for Teaching and Learning

Processes

1. The fact that the students in the class are at varying levels of growth and development, have acquired different types of potentialities implies that though the same curriculum is being used,

the classroom setting must be appropriate and rich enough to accommodate these differences. The use of instructional aids of various types often helps greatly in this situation.

2. Also, the children are at various levels of developments meaning they cannot all perform the same developmental tasks. The teaching strategy of the teacher must reflect this in the classroom otherwise not all the pupils will be carried along. This should be noted too during skill performance.

3. The need for child study by the teacher is emphasized.

**Activity II**

Give the principles of development.

**4.0 Conclusion**

We have discussed that development refers to a series of qualitative, progressive and orderly changes in an organism.

These changes are brought about by the interplay of the forces of growth; maturation and environmental factors.

Genetic study of children has shown that development follows a fixed pattern and the pattern is influenced by experience. These patterns are ordered in nature. These are called the principles of development. About eight of such principles have been identified in human development and their implications for education were discussed.

**5.0 Summary**

In this Unit, we have:

• defined development and developmental psychology;

• described development processes

• enumerated and explained the general principles of development.

**6.0 TUTOR-MARKED ASSIGNMENT**

Discuss the significance of:

(a) development psychology to the teacher.

(b) The principles of development in the classroom.

7.0 REFERENCES/FURTHER READINGS

Durojaiye, M.O.A. (1976). A New Introduction to Educational Psychology, London: Evans.

**UNIT TWO: FACTORS THAT AFFECT GROWTH AND DEVELOPMENT**

**Contents**

- Hereditary Mechanisms
- Meiosis or Meiotic Cell Division (Production of Gametes)
- Inheritance of Eye Colour
- Specific Traits Determined by Heredity
- Environment and Development
- Environmental Influences
- Effects of Urban and Rural Settings on Learning
- The Rural and Urban Environment
- The Concept of Individual Differences
- Areas in which Children Differ and how to Cater for Them
- Summary
- Tutor-Marked Assignment
- References/Further Readings

**1.0 Introduction**

An individual at any stage of his development is the product of organic and environmental factors working hand in hand.

During conception, the formed individual is endowed with all potentialities. However, the environment has the last word. No organism, regardless of its potentialities and basic qualities, can survive in the absence of a favourable environment.

The genetic factors set the limits while environmental influences complement genetic endowment. There is therefore the need for understanding of this interplay of forces in order to provide adequate opportunity for the students to learn and to be able to assist them appropriately.

**2.0 Learning outcomes**

By the end of this unit, students should be able to:

- distinguish between environmental and genetic factors in growth and development;
- explain the role of each in growth and development;
- describe the mechanism of genetic inheritance;
- list and explain the effect of chromosomal abnormalities;
- list and explain the effects of some environmental factors on growth and development.

**3.0 Main Content**

3.1 Hereditary Mechanisms

When the sperm fertilizes the ovum, all the characteristics that the new life will forever inherit from his/ her parents and grandparents are set. After fertilization, nothing can be changed except by accident. According to Thompson and Kahles, "Every individual's supply of genes, the bearers of hereditary factors, is given him/her once and for all in alternation at conception".

At conception, there are twenty-three (23) pairs of chromosomes, one half from the father and the other half from the mother (forty-six (46) chromosomes from both sides). These make up everything that determines the heredity of the child.

3.2 Meiosis or Meiotic Cell Division (Production of Gametes)

The normal body cell (Somatic cells) of an adult contains twenty-three (23) pairs of chromosomes (2n) i.e., diploid number. If the egg cell and sperm cell from the parents should also contain 2n chromosomes, then an offspring with forty-six (46) pairs of chromosomes (4n) would be produced. This will be bizarre.

There is therefore a mechanism in nature to maintain the diploid condition (2n) in individuals.

This is done through Meiosis, a type of cell division which tends to divide an initial cell into halves having half the number of the twenty-three (23) pairs of chromosomes i.e. 23 (n). these daughter cells have the **Haploid number (n).**

This type of cells with **haploid number** of chromosomes each are called germ Cells or Gametes i.e. Eggs (Ova) and Sperms. haploid number diploid number haploid number



**MEIOTIC CELL DIVISION**
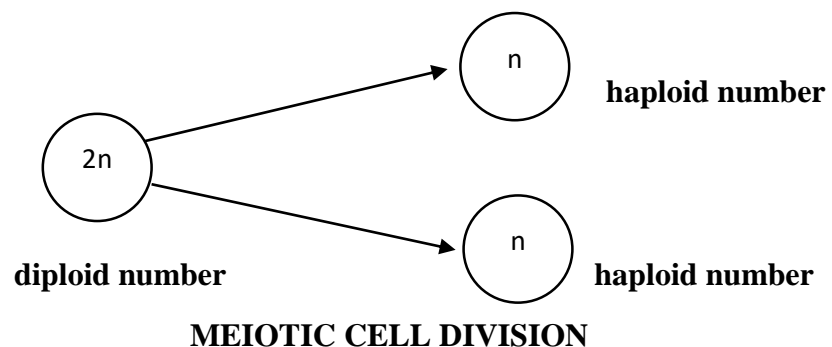
### 3.2.1 Terms in Genetic Inheritance

Heredity: This is the transmission of potentialities or traits of physical, mental and other characteristics from parents to off springs.

Chromosomes: Chromosomes are structures found in the nucleus of any cell on which genes are located.

Genes: Genes are the bearers of hereditary factors. These factors are the information for the expression of characteristics which are passed from the parents through the gametes to the off-springs. Genetic information are stored on genes of other structures called Deoxyribose Nucleic Acids (DNA). DNA is the nature's code or blueprint for the genetic makeup of each individual.

### 3.3 Inheritance of Eye Colour

It has been found out that whenever the gene for brown eyes is present in an individual; the colour of his/her eyes will be brown even when other genes for eye colour (blue or green) are present.

The gene for brown eye colour is therefore said to be DOMINANT to the genes for blue or green eyes which are said to be RECESSIVE.

The gene for brown eyes is represented by B and the gene for either blue or green eyes is represented by b i.e. Dominant genes are in capital letters and recessive genes in small letters.

If a man with pure brown eyes (BB) marries a pure blue eyed woman (bb) then their off-springs will all have brown eyes as shown below:

Parents                    Brown eyes                    Blue eyes

                              BB                              bb

                           Produce                        gametes

    (B)        (B)          all      (b)          (b)

                    gametes fuse during fertilization

First filial
generation      Bb        Bb                        Bb          Bb

                All have brown eyes as brown in dominant to blue.
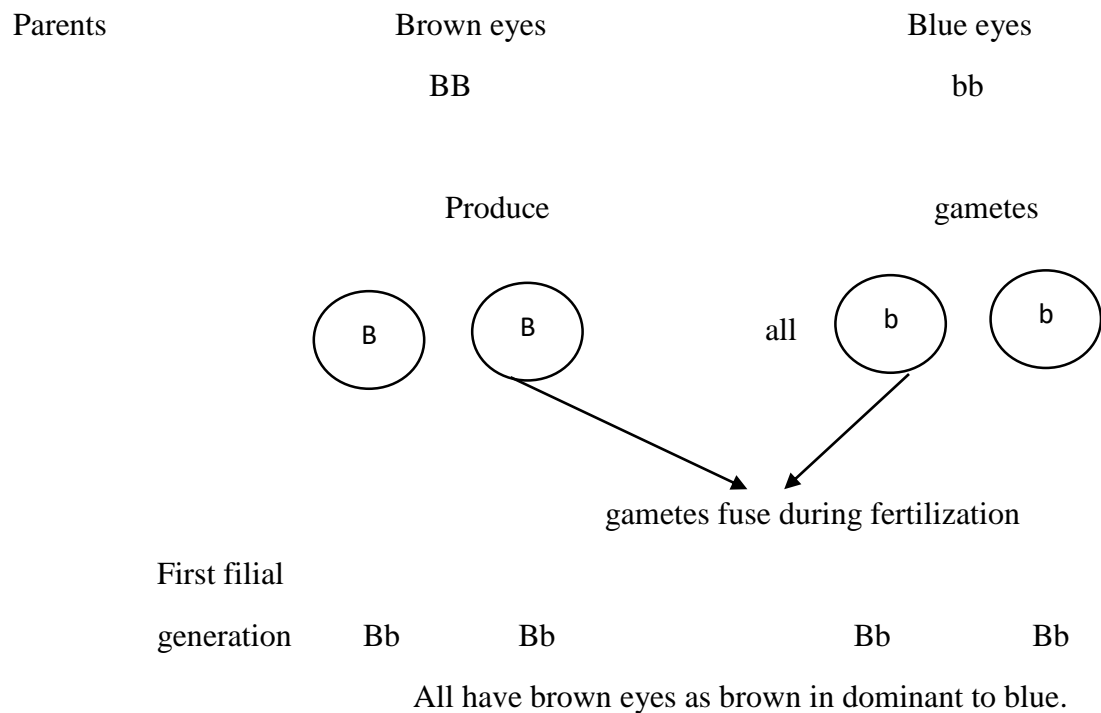
### Activity I

(a) Distinguish between Mitotic and Meiotic cell divisions.

(b) What is the importance of each in human development?

When an organism contains identical genes i.e. BB or bb, it is said to be **HOMOZYGOUS.**

When an organism contains two dissimilar genes i.e. Bb, it is said to be **HETEROZYGOUS.**

Heterozygousity or Homozygousity describes the genetical constitution of an organism (i.e. the types of genes it carries). The genetical constitution of an organism is known as its **GENOTYPE.**

The outward appearance of the organism, i.e. the way the genes express themselves in the structure of the organism (i.e. Brown, blue or green eyes) is known as the **PHENOTYPE.**

The genotype for brown eyes is BB or Bb and the brown eyes is the Phenotype.

Now supposing a homozygous blue eyed man (bb) marries a heterozygous brown eyed woman (Bb), what off-springs will they produce?
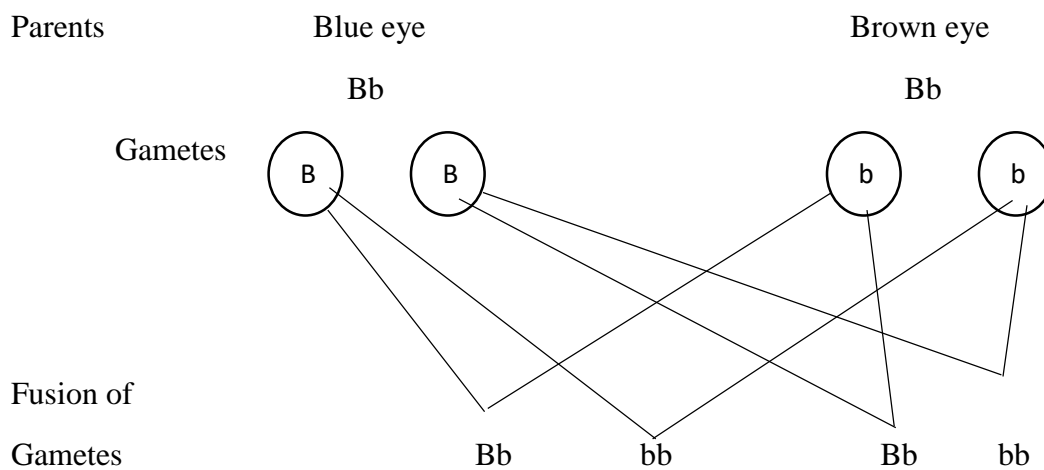
Parents          Blue eye                           Brown eye

                    Bb                                 Bb

    Gametes      (B)    (B)                         (b)    (b)

Fusion of

Gametes              Bb        bb              Bb        bb

From the above, they will produce two heterozygous brown eyed (Bb, Bb) and two blue eyed,

(bb, bb) off-springs.

**Activity II**

With a specific example, illustrate the mechanism of genetic inheritance in human development.

**3.4 Specific Traits Determined by Heredity**

These traits are discussed below:

**1. Sex Determination**

The sex of the child is determined at the time of fertilization.

Chromosomes produced by mature sperms from males differ in character. These different chromosomes are the sex determinants.

There are usually two types:

(1) the larger one called the **X chromosome;**

(2) the smaller one, which is about 1/3 the size of X-chromosome called **Y-chromosome**.

One half of each sperm carries an X-chromosome and other a Y-chromosome i.e. XY. By contrast, all matured ova carry only X-chromosomes i.e. **XX.**

Therefore, a **fertilized ovum** (zygote) contains at least an X-chromosome and either an X- or a Y-chromosome from the sperm.

If the sperm that unites with the ovum is the X type, then we have **XX genotype** and the result is a **female child**. But if a Y-bearing sperm unites with the Ovum, the result is an **XY genotype**. These always produce a male child. The production of a male child solely lies with the man. That a family produces female children consistently is therefore not the fault of the wife.

Diagrammatically, this can be portrayed as follows:
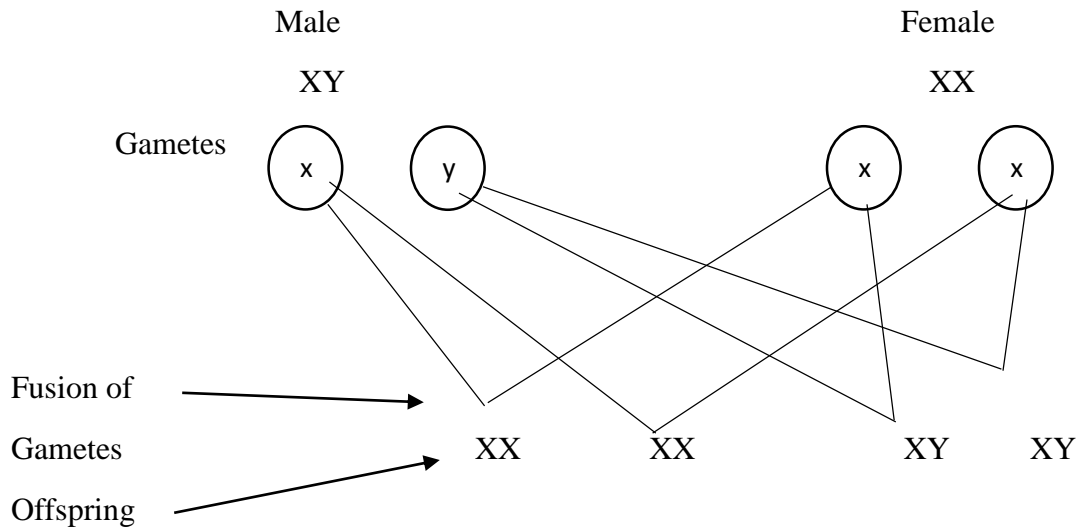


From the above, they will produce two heterozygous brown eyed (Bb, Bb) and two blue eyed, (bb, bb) off-springs.

## 2. Twins Development

A is usually brought about by the development of two babies in the womb during one pregnancy. There are usually two types of twins**, the identical** and **Non-identical twins.**

**Non-Identical Twins**

The woman normally has two ovaries with the possibility of releasing two eggs (Ova) every month though usually only one ovary releases one ovum monthly.

However, where the two ovaries release two separate eggs and each egg is fertilized by two different sperms; the two zygotes formed will develop separately. These two embryos will eventually lead to the birth of two Non-identical twins. These fraternal twins will look just a little alike as brothers and may be the same or different sexes. They are never exactly alike.

Often, dizygotic twins remain different in every way till adulthood. These differences may be magnified by the environment.

X Y X X

**Identical Twins**

When one egg (Ovum) is fertilized by one sperm, a zygote is formed. This zygote may now divide into two and each half will develop into a separate embryo. These two embryos originating from the same zygote will lead to the birth of identical twins or monozygotic twins. Usually, identical twins are the same sex. Identical twins always have the same hereditary potentialities which may persist throughout life. Any difference between them is accounted for by the environment in which they develop. That identical twins have different personalities is caused by the environmental factors.

**3.4.1 Specific Traits Determined by Heredity**

We have already said that it is difficult to determine what traits heredity endows that are not influenced by environment. However, there are some that must be mentioned.

**(i) Physical features**

It is easy to see that children are very often like their parents and grandparents. We do

not mean that they can be exactly like their parents because as we have just learnt they

inherit from both father and mother.

**(ii) Intelligence**

From studies of twins especially identical twins, it has been found that under normal circumstances both twins are alike intellectually. When they are reared together, the degree of alikeness also known as correlation is very high .88. Even when they are reared in different places the correlation is .79, also very high. So we conclude that intelligence tends to be inherited somehow.

**(iii) Disorders**

The commonest form of inheritable sickness in our environment is sickle cell anemia. People should know more about how this condition is inherited. Unfortunately, we cannot go into it now. Other forms of disorders and diseases are also inheritable.

**(iv) The rate of development**

Also seems to be inherited. Generally, a child that is fast in crawling will tend to be fast in walking and in many other aspects of physical development.

**(v) Blood type**

People normally say blood is thicker than water. Perhaps we should say that a child always inherits the blood type of his parents. That is why a child or a close relation can donate blood for a person.

**(vi) Sex-related traits**

**3.4.2 The Status of Individuals with Respect to Genetic Disorders**

Different genes affect individuals in different ways. A person may have the gene for a particular genetic disorder and actually have the symptoms of the disease. A person may have the gene for a particular genetic disorder but be asymptomatic either because the onset of the disease will occur later in life (e.g., Huntington disease or because the disease is under control (e.g. hemochromatosis). Some genes make it virtually inevitable that an individual will eventually show the symptoms of the disease (e.g., Huntington disease) whereas other genes merely make an individual more susceptible to developing a disease (e.g, heart disease, lateonset Alzheimer disease). An individual may be a carrier of a genetic disorder, that is, have one copy of a gene associated with a recessive genetic disorder and one copy of its normal counterpart. A carrier typically never shows symptoms of the disease because the normal copy of the gene is sufficient for normal functioning, but can pass on the defective gene to children.

**3.4.3 Types of Genetic Disorders and Patterns of Inheritance** A human being has twenty-three pairs of chromosomes. One member of each pair is received from the father, and the other member from the mother. Chromosomes carry genes, the basic units of heredity. Genes are composed of DNA base pairs, which work through coding for the production of proteins.

**Chromosomal disorders** arise from errors in the packaging of the genetic material. Either too much chromosomal material is present or too little is present, or the chromosomal material has been misplaced and rearranged. In a few cases these disorders are inherited from one of the parents who is a carrier, but in the vast majority of cases they arise when a defective germ cell (the sperm or the ovum) is produced or when the cell is subjected to some change. Most pregnancies with chromosomal disorders are spontaneously aborted, but some go to term. The degree of disability among children with chromosomal abnormalities is variable. For example, in Klinefelter syndrome the male child has an extra X chromosome; affected males are infertile, have small testes and poorly developed secondary sex characteristics, and may be tall and have subnormal intelligence. A child with trisomy 13 (an extra chromosome number 13) usually dies shortly after birth. Trisomy 21 (Down syndrome) is characterized by mental retardation, but the degree of retardation will vary from child to child.

An **autosomal dominant disorder** occurs when an abnormality in one member of a pair of genes is sufficient to cause the defect to appear. Autosomal dominant diseases include Huntington disease, whose symptoms of uncontrolled muscular movements appear about age thirty-five and

progress through neurological degeneration (including dementia) to death over a ten- to twentyyear span; neurofibromatosis, which involves the occurrence of skin tumors (often benign) and sometimes skeletal changes; adult onset polycystic kidney disease, which involves the formation of cysts in the kidneys and brings on high blood pressure and kidney failure and Marfan syndrome, a disorder of connective tissues which manifests itself by tall stature, extra-long digits, progressive involvement of heart valves and major blood vessels, and impaired vision which may progress to blindness. The child of a parent with an autosomal dominant disorder has a 50% chance of being born with the disorder.

An **autosomal recessive disorder** is caused by abnormalities in both members of a pair of genes. Both parents may carry a single dose of the gene on one chromosome but have a normal gene on the other chromosome, which prevents the appearance of the disease in the carrier parent. A child must get one abnormal gene from each parent in order to be affected by the disease. Examples of autosomal recessive disorders are phenylketonuria (PKU), an error of metabolism which can result in mental retardation, growth disturbance, and eczema if not treated with a special diet; Tay-Sachs disease, which causes progressive deterioration (viz., paralysis, dementia, blindness) and eventual death in early childhood, usually before four years of age ; cystic fibrosis, in which a high-protein viscous material interferes with the normal functioning of glands throughout the body, especially the lungs, pancreas, and sweat glands; and sickle-cell anemia, a blood disorder which may involve chronic anemia, impairment of growth and development, leg ulcers, and painful crises caused by the obstruction of small blood vessels. Parents who are both carriers of an autosomal recessive disorder have a 25% risk of producing an offspring affected by the disease and a 50% risk of producing normal-appearing carriers. An X-linked recessive disorder occurs when the abnormal gene is carried on the X chromosome. A female with an abnormal gene on one chromosome will usually not have symptoms because of the normal partner gene on the other X. On the other hand, if a gene on the X chromosome of the male is abnormal, there is no partner gene on the Y to compensate, and the symptoms of the disorder will occur. Hence, X-linked disorders are carried by females, but primarily affect males. Such diseases include Duchenne muscular dystrophy, hemophilia, and some forms of growth hormone deficiency. A carrier female has a 50% chance of producing a son affected with the disease, and a 50% chance of producing a daughter who will be a carrier.

In an **X-linked dominant disorder** the abnormal gene is carried on an X chromosome of either a male or a female. If the mother is the carrier, there is a 50% chance that the child will be born with the disorder; all daughters of an affected father will have the disease. An example of an xlinked dominant disorder is incontinentia pigmenti, which brings about swirls of pigment in the skin that resemble swirls of paint or marble cake. This disease may also involve hair loss, visual problems, missing or peg-shaped teeth, and seizures.

**Multifactorial disorders** are caused by a combination of genes inherited from parents and environmental factors. In other words, defective genes predispose individuals to a condition, but other factors appear necessary for the occurrence of the disease. Defects due to multifactorial inheritance include congenital heart disease, most types of cleft lip/palate, club foot, and neural tube defect (e.g., anencephaly and spina bifida).

### 3.4.4 Chromosomal Abnormalities

The chromosomal abnormalities of importance to the educators are those brought about by the non-separation of the chromosomes into gametes during the process of meiosis. This is called NON-DISJUCTION. This often results in half the gametes having two of the chromosomes and the other having none.

### (1) Down's Syndrome (Mongolism)

This is caused by the presence of an extra chromosome in the cells making it 24 chromosomes as against 23.

Sufferers have slit-eyed appearance, reduced resistance to infection, are always mentally retarded or deficient and have thick tongues with short stubby fingers.

### (2) Klinefelter's Syndrome

This individual has the genetic constitution XXY. It is caused by the failure of the Xchromosomes to separate during gamete formation in the mother. When such an egg is fertilized by a Y-chromosome, the result is XXY instead of XY.

The individuals are outwardly male but have some female characteristics and fail to

manufacture sperms. Some may have psychopathic traits, criminal tendencies and mental

retardation.

### (3) Turner's Syndrome

This results from the absence of an X-chromosome in an egg. When fertilized, such individuals have the genetic constitution XO. They are usually sterile females with underdeveloped ovaries.

### 3.4.5 Sex-linked Traits

The Y-chromosome is usually genetically empty for sex linked traits. Most of the genes for the traits are carried on the X-chromosome.

Some of the sex-linked traits are Baldness, Colour Blindness and Hemophilia. They are caused by recessive genes carried on the X-chromosome. Most of these diseases are common in men than in women who are usually carriers.

### Activity III

Distinguish between chromosome abnormalities and sex-linked traits. Give examples of each.

### 3.5 Environment and Development

Environment implies all factors influencing the development of an individual right from the time of conception. It includes such things as diet and health of the mother when the child is in the

womb, home influences, school, church and neighbourhood influences, effects of climates, geographical location and all things that stimulate the senses.

Identical twins often have similar genetical constitution as they come from the same zygote but in life they are often different in so many aspects. This difference is due to the effect of environment.

Evidence abounds of Nigerian athletes or students who perform poorly at home but travelled abroad to become stars. One can only explain this by saying that they had already possessed the potentialities but as the environment was not conducive the potentials could not be manifested at home.

**3.6 Environmental Influences**

**Factors**

You will recall that we define environment in terms of all the factors which affect the individual

after the moment of conception. To understand these factors we will try and group them. We

can only list some of them.

**(a) Pre-natal factors**

These are factors in the womb which can influence growth and development. The next

unit discusses these factors. They can affect development positively or negatively.

**(b) The family members**

The child is born into a family and it is there that he first learns many things. The family has a very strong and long lasting influence on the developing child. Every aspect of the child's development is affected. Whether he is fat or thin depends on how much he is given to eat. His values depend on the family, his relationship with people outside his home etc.

**(c) Institution**

(i) School: The school has tremendous influence on the conduct, learning and other behaviour of the child; it is here that the child acquires a lot of skills, knowledge, etc.

(ii) The religious Institutions: church, mosque, influence some aspects of the child's development.

(iii) The media: radio, television, newspapers. Even in the rural areas, some of these do have

an impact.

**(d) The physical environment**

(i) The conditions of a place affect the health and subsequently all other aspects of a child's development. Is there enough and right type of food? Is there clean drinking water?

(ii) Facilities for learning, exercise and interaction also affect development. Is there space for exercise and are there play materials?

### 3.6.4 How Environment Influences Development

Since environment makes it possible for hereditary gifts to grow and bloom we can say that all aspects of development are influenced by environment. Environment provides food for growth as well as opportunities for learning. However, there are some which are virtually under the control of environment.

These are mostly the aspects of development which are learned and only a few examples will be given.

(i) Language: The child's competences in language depend on the way he is taught language in the home, in school etc.

(ii) Social relationship: How the child relates with people depends on his experiences and the skills which he has for interacting with people.\

 (iii) Motor skills: Although the child does not need to be taught how to crawl, stand, walk, how he performs many skills depends on the environment. For example, we can all walk but you will agree that marching which is a kind of walking has to be learnt. If you have watched the march past during Children's Day or Independence Day celebrations, you will understand what I mean. The same thing applies to many other motor skills –jumping, throwing, etc.

**(iv) Intellectual ability**: Even though we have said that heredity has a strong influence, the

child has a strong influence; the child has to be stimulated for intellectual development to

progress well.

**(v) Physical developmen**t: Environment cannot change the physical structure except there is

an incident and a limb or other part is completely destroyed. But how well a child grows

depends on the nutrients and generally healthy conditions free from infections and other

debilitating hazards.

(vi) Moral values and judgement are learnt in the family and the home in which the children

live. The way we are attached to our families and kin group here, the way we respect

elders in our communities are not universal. They are important to us in our

environment.

### 3.7 Effects of Urban and Rural Settings on Learning

Whether a learner lives in a rural area or in an urban area has serious implications for his/her learning ability and achievement. Rural areas suffer from the absence of modern facilities and government presence which can facilitate learning. The urban areas, on the other hand, most often,

have good infrastructural facilities, such as electricity, water supply, good schools, good road network, amenities and other conditions that promote learning ability and achievement.

## 3.8 The Rural and Urban Environment

Environment plays a very important role in the development of the child. It provides food for growth as well as opportunities for learning. This important role of the environment can be enhanced or limited by the conditions that exist in the learner's immediate environment.

Below are some of the areas in which rural or urban location affects learning:

### 1. Socio-economic Conditions:

The income earning power tends to be higher in the urban areas than in rural areas. There seem to be better conditions and opportunities for income generation in the urban areas than in the rural areas. This is because of wide variety and lucrative jobs and business that exist in urban centres.

We also have better infrastructural facilities in urban areas than in rural areas. In urban centres, there are good network of roads, power and water supply, telecommunications, amenities such as schools, libraries, hospitals, play grounds, sporting and recreational facilities, etc.

These favourable conditions in urban settings create an enabling environment for teaching and learning. Urban schools benefit from availability of qualified and well trained teachers. Their schools are better built and more equipped than rural areas. The result is that schools in urban centres are more likely to produce higher achievers than rural schools.

### 2. Government Presence:

In the urban centres, there is higher government presence than in rural centres. This nearness

to the seat of government means that urban schools are likely to be better provided for and

supervised. The implementation of educational policies is likely to begin in urban centres

before getting to the rural areas. For example, supply of books, teachers, instructional

materials, etc. is likely to be in favour of urban areas.

### 3. Background of Parents:

The urban parents are likely to be more educated; more enlightened and know the value of education than their rural counterparts. Their perceptions may also differ. These differences will have impact on the learning achievement and ability of the pupils.

### 4. Cultural Factors:

Closely related to the above is the fact that the cultural factors are likely to play a more important role in the upbringing of the rural child than the urban child. The rural child is likely to have a different perception, beliefs system, local knowledge and prejudices (e.g. sex roles), than the urban child who is likely to be more cosmopolitan. This has implication for learning ability and achievement.

**5. Presence of Mass Media and Information Technology:**

In the urban centres, there is high presence of mass media and telecommunication facilities. There is ready access to information and communication technology especially the radio, television, computer and the internet. The urban child is in a position to connect to the global village. He has access to a wide variety and plenty of educational resources. The rural child may lack this access and therefore the ability to benefit from such opportunities. There is no doubt that his ready access and availability of the mass media and computer technology places the urban child at learning advantage.

### 3.9 The Concept of Individual Differences

We have realized from the introduction to this unit that no two persons are exactly the same. Because no two persons are alike, there is what is called individual differences. This is an important concept which we should know as educators. Basically, this concept means that no two persons are exactly the same, even identical twins. Children and adults differ in age, even though they might be regarded as a homogenous group. Children also may differ in their height, complexion or even intellectual ability. The teacher should have a thorough knowledge of these individual differences and bear them in mind any time he is dealing with his pupils. We discovered earlier on that identical twins differ in many ways. Because of this concept that no two persons are the same, modern education is becoming skeptical over the class method of teaching which apparently ignores this concept.

The class method has to accept that each child is a unique human being, different in rate of growth and development. Each, therefore, differs in achievement. The concept of individual differences seems to permeate all aspects of life but many class teachers tend to ignore it. Each individual comes into the world with a unique inherited capacity. For example, close creative, writing, musical and dramatic abilities differ. Children's adjustment patterns are different. There are differences in speech, hearing, vision and physical skills. One may see how easy it is also to notice among children differences in height, weight, general health and dentition or teeth formation. All these are individual differences.

### 3.10 Areas in which Children Differ and how to Cater for Them

These are discussed below.

### 1. Differences in Physique and Sex

There are many differences which are observable in children in terms of their physical appearance and sex. At the early stages of development, the classroom teacher should take note of differences in physique and sex. Some children are boys others are girls. At the adolescent stage physical differences among children are greater. Some children are tall others short. Some are fat others are slim. Girls may not be able to perform certain physical exercises which boys perform. They may not be as strong as boys. Boys and girls may differ in sewing and cookery, woodwork and blacksmithing. Girls may perform better in the first two and boys in the last two subjects. It is also

argued that boys excel in mathematics and the sciences while girls excel in arts and languages. On the average, girls perform better than boys in reading, comprehension, vocabulary and language skills. To cater for these differences, you must pay special attention when teaching girls mathematics and other science subjects. Also you should make arrangements so that the smaller children sit where they can see the board. During Physical Education lessons, you should bear in mind the size, strength and sex of the children when grouping them for exercises.

## 2. Differences in Intelligence

The teacher should bear in mind that intelligence is a factor of heredity and environment differs among children. Some children are lucky to possess a high level of intelligence. While some children are of normal or average intelligence, some are bright or have above average intelligence. The very bright ones are able to learn rapidly and easily. They can see relationships and are aware of many things children at their age are not aware of. Above all, very bright children have the capacity for creativity and originality. Awareness of these differences in the intellectual-ability of your class children should influence your teaching methods. Exercise a lot of patience for slow learners in the class. You should also use a variety of methods for teaching which will involve activities, demonstrations and the use of different senses of the body. Also, try and make use of different kinds of aids while teaching and as much as possible teach children individually. Finally, regulate the teaching to suit the slow learners and also move fast on the basis of individual progress with the bright ones.

## 3. Differences in Age and Rate of Maturity

The classroom has children with great differences and there is no way of removing individual differences. Therefore, even though a number of children may be grouped together in the same class, there may be differences in their ages. This implies that all children in a class cannot perform equally all tasks given to them. Some children may not be mature enough to perform certain physical or mental exercises while some will be capable of doing both. Educators who emphasize the concept of maturation believe that all development occurs in definite, internally controlled sequences.

These sequences apply not only to the growth of tissues and organs but also to their functions and behaviours. Because of this, the rate at which children mature differs. This difference in the rate of maturation obeys the law or concept of readiness. This law of readiness simply states that for the learner to learn successfully, he must be ready to learn. Readiness is a function of maturation and stimulation. Children should be taught a task or skill only when they are ready notwithstanding the fact that they are all in the same class.

To cater for differences in the maturity level of children, you should only introduce concepts, and skills to the children who are mature enough to learn such. The most effective way to determine readiness to learn is to give the child the opportunity to learn and then observe his behaviour. If the child is ready he would respond pleasurably to the learning experiences before him. If the child is not ready, it becomes a waste of effort and may result in frustrating the child, to force him to learn. You must not set or expect the same performance standards for all children in class even if

they are of the same age. Above all, make use of teachable moments. This is the optimum time when you can introduce and stress any skills or attitudes you want to teach your children.

## 4. Differences in Health

There is a common saying that "A healthy mind is found in a healthy body". Some children inherit weak health potentials from their parents, while others are lucky to inherit very good health potentials. Some are partially deaf or dumb; others have either bad sight, deformed hands or legs. They sit in the class side by side with children who speak well, hear well and have no physical deformity. Some children are sickly while others are sicklers. Others by virtue of luck are very beautiful or handsome with strong health and this makes people anxious to help them. The concept of individual differences makes it mandatory for teachers to bear these differences in mind while teaching the pupils.

To cater for these differences a teacher must make sure that tasks assigned to handicapped pupils are tasks that are feasible given their limitations. It does appear to be a great injustice to expect that the handicapped children should grasp lessons at the same rate as their more fortune counterparts. As the teacher you should display a lot of understanding, tact and resourcefulness.

Vary the methods of teaching and make a lot of aids for the teaching of the weak pupils. Sick pupils should move at their pace while extra effort to appeal to their senses should be exploited. Medical attention should be sought for the sick ones and periodic check-up for the healthy ones.

## 5. Differences in Children's Background

Apart from differences in children as a result of heredity, there exist differences which result from different types of environment in which children find themselves. A child who grows in the hands of well-to-do parents is likely to enjoy a good environment. He will probably have access to some modern gadgets found in the homes such as electricity, good water supply, radio sets, television sets. This child is exposed intellectually by the possession of different types of magazines and children's books. He enjoys good medical attention.

This child so described will differ significantly from a child who lives in an out-post of the town such as the village farm. This second child lives in a thatched house with no modern facilities. Such a child, no matter his intelligence may be handicapped by his environment. Most of the modern gadgets found in the homes of well-to-do parents are inaccessible to children in a poor environment. The role of the classroom teacher is to recognize the fact that children come from different homes, environments and socio-economic backgrounds. This has to be taken into consideration while teaching and learning activities go on. The teacher should not take some of the topics slated for teaching for granted. For example, topics like the Railway Station, the Motor Park, Supermarket and even a Court Scene may be unfamiliar to a child in a poor environment. Give as many examples as possible while teaching. Visual aids and visits to such places of interest may help to minimize environmental differences. Before asking your class pupils to contribute money or real things for class projects like dramatization, make sure each child can afford to execute his own assignment.

**6. Differences in Character**

Some children differ in disposition. This difference is both genetic and environmental. A child may be a confident child and would grow up as a confident adult. Some children are emotionally stable and are never withdrawn or dull in appearance. Such children are exposed to and are surrounded by healthy influences. The result is that the children appear bright, confident and see the teacher as a friend. They are not afraid of their class teacher and ask questions and seek help from him. But some children are not stable. They may come from emotionally unstable homes where parents fight very regularly. They are never confident of themselves. Because of the unhealthy influences which surround such children they are generally timid or fearful. Timid children may resort to withdrawing from social interactions which go on in the class.

As a teacher, it is your duty to remember the differences in disposition and character among your children when you teach them. A good teacher should check and pilot the curiosity or inquisitiveness of his emotionally stable children. Answer their questions and give them more challenging tasks. Expose them more to wholesome influences and problem solving situations. For the children who are not emotionally very mature try to be patient with them. They need plenty of love, assurance and confidence. Stimulate them with simple tasks which they can perform and encourage them as they attempt the tasks. Timid ones should be shown areas where they excel more than their counterparts to instill confidence.

**Activity IV**

1. List the six (6) areas in which children differ.

2. Explain only three (3) of them with examples.

**4.0 Conclusion**

We have discussed that all hereditary endowments of an individual are determined at conception. The hereditary factors are carried on genes found in chromosomes of the germ cells. Each cell has 23 pairs of chromosomes called the Diploid number. Half of these pairs came from the father and the other half from the mother at conception. The diploid number is reduced to haploid number to produce gametes through meiotic cell divisions.

Fertilization occurs and a Zygote is formed when two opposite gametes – Ovum and Sperm fused together. The production of boys and girls and twins are determined by heredity. There are some abnormalities and diseases caused by aberrations of the chromosomes and others linked to the gene of the individuals.

Even when an individual has a good genetic makeup, it requires a conductive environment to nurture it to maturity. The influence of environment starts from womb till adulthood. Teachers should therefore provide conductive environment for children to develop well and for learning to take place.

**5.0 Summary**

In this unit, you have been able to:

• distinguish between environmental and genetic factors in growth and development; • explain the role of each in growth and development; • describe the mechanism of genetic inheritance; • list and explain the effect of chromosomal abnormalities; • list and explain the effects of some environmental factors on growth and development.


**6.0 Tutor-Marked Assignment**

1. Discuss with vivid example, the influence of the environment on the development of an individual. How can we use this to improve teaching and learning?

2. Explain the meaning of heredity, environment, and individual differences.

3. Explain the relationships between heredity and environment.

4. Specify the two broad types of inheritance.

5. Explain in a few sentences how heredity makes individuals different.

6. What traits are inherited or strongly influenced by heredity.

7. List four (4) environmental factors that affect growth and development.

8. What aspects of development are greatly influenced by environment?

9. What role do rural and urban settings play in learning?

10. Give any five (5) areas in which individuals differ.

11. State any six (6) ways that teachers can use to cater for individual differences.

12. What important role does environment play in the development of the child?

13. Discuss any five important rural-urban factors that influence learning.


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# UNIT THREE: STAGES OF HUMAN DEVELOPMENT I:

## CONCEPTION TO CHILDHOOD

**CONTENT**

- Conception
- Factors Affecting Pre-natal Development
- Environment in Utero-Factors Affecting Pre-natal Development
- Educational Implications
- Development During Childhood
- Motor Response of the Neonate
- Sense Organ Development of the Infant
- Childhood Development – Physical Development
- Areas of Physical Development
- Determinants of Physical Growth
- Patterns of Physical Growth
- Neural Growth Patterns
- Sexual Pattern of Development
- Motor Development
- Development of Prehension
- Development of Writing and Drawing
- Development of Laterality
- Effects of Handedness
- Generalizations about Motor Development
- Conclusion
- Summary
- Tutor-Marked Assignment
- References/Further Readings

**1.0 Introduction**

Summation of the modern school of thought opinion points to the fact that teachers and Counselors alike, are supposed not only to know our subject matter but also the child we handle. The knowledge of the child should include the child's growth and development. However, we may be asked for the reasons why we need to bother ourselves knowing or studying the child? In response therefore, the following reasons may justify our effort to study the growth and development of the child we teach and counsel.

1. A knowledge of the child as he is presently will assist the teacher in guiding his future.

2. To understand a child as he is presently, we must try to understand what had gone before.

3. There is the need to study what happened during the child's early development in case the teacher comes across some who had encountered problems earlier on. The teacher can then give adequate help to these children and even help them overcome their difficulties.

Because of the above mentioned reasons, this unit will examine the concepts and principles of Growth and Development.

**2.0 Learning Outcomes**

At the end of this unit, you should be able to:

• describe the process of conception and its significances to child development;

• describe the stages of pre-natal development;

• discuss the development of the human organism from unit to unit;

• state the stages of childhood development;

• describe the physical and motion development at each of the stages and give their educational implications; and

• give the implications of the childhood development for educators.

**3.0 Main Content**

**3.1 Conception**

The genetic makeup of a child is determined at conception. Conception takes place when a sperm from the sperm from the man fuses with the egg (ovum) from a female to form a zygote in a process called fertilization. This is the beginning of human development. This stage is called pre-natal stage and usually lasts for nine (9) months. The development at this stage is rapid and the body structures are formed. The environment of the growing human organism is of extreme

importance at this stage.

The zygote divides repeatedly through the process of mitosis until the cells are differentiated into tissues and organs. By the second week of conception, the human embryo has been formed with some human characteristics.

**3.1.1 Embryo**

By now, the embryo is firmly held in place by the umbilical cord attached to the uterus through the placenta. This is also a period of rapid cell divisions during which cell differentiation and specialization take place.

The various body tissues and organs develop and by the 8th and 9th week (2 months), the embryo has fully developed with functional organs and systems i.e. the heart, sex organs, other internal organs for specific functions and nervous system. This develops into the foetus.

### 3.1.2 The Foetus

The foetal stage is the period between the 2nd months (9th weeks) to birth. This is the period of

ossification, and for their differentiation and specialization of cells and tissues. The

specialization of functional organs is completed during this stage.

### 3.1.3 Monthly Development at the Pre-natal Stage

| | |
|---|---|
| *First Month:* | The embryo is fixed to the uterus through the placenta. It is nourished and get rid of wastes through the placenta. Heart, Liver and the digestive system are formed. |
| *Second Month:* | Limbs begin to form and the facial features become defined. Other external organs are visible. |
| *Third Month:* | All features of the baby are now very distinct. First toes and eyelids begin to form. Most women now notice the physical signs of pregnancy. |
| *Fourth Month:* | All organs are now formed and the foetus becomes active. Movements of the limbs are now noticed. |
| *Fifth Month:* | The sucking and swallowing reflexes are developed. The heartbeat is audible to the stethoscope. Movement becomes more pronounced and stronger. |
| *Sixth Month:* | The foetus has grown bigger with the mothers' Tommy now protruding, kicks more vigorously. The skin is now reddish and wrinkle. |
| *Seventh Month:* | The physical development at this stage is almost completed and the foetus can survive the harsh conditions of the outer world should it be born pre-maturely. |
| *Eighth Month:* | The foetus is almost fully grown as much as it could be and now in an headdown position. |
| *Ninth Month:* | The foetus, now with functional organs settles down towards the abdomen. Now, a miniature adult, it can be safely delivered. The average weight is between 2.5 to 3.5 kg |

**Activity I:**

1. Briefly discuss the stages of development of the foetus from 0 to 9 months.

2. What is conception? Explain the various factors that affect the foetus in the uterus.

### 3.2 Factors Affecting Pre-natal Development

As earlier mentioned, the genetic makeup of the child has been determined at conception. Some of these genetic factors include intellectual potential, characteristic traits, chromosomal abnormalities, gender, hormones and certain diseases. However, how these potentials will be

developed is a function of the environment. The environment in the uterus is delicate and crucial to the survival and development of the foetus.

Some of the uterine environmental factors are:

*Age of the Mother,*

*Maternal Nutrition,*

*Maternal Diseases,*

*Emotions, Anxiety, Tension and Stress;*

*Use of Drugs,*

*Cigarette and Alcohol.*

**3.3 Environment in Utero-Factors Affecting Pre-natal Development**

**i. Nutrition:**

We want to emphasize the importance of nutrition or good food in our African environment. Through poverty, economic difficulties and ignorance the pregnant woman may not be well fed. Rather, the husband saves money to prepare for the ceremonies after birth! Good nutrition, provided by a balanced diet, helps the unborn baby to develop optimally. A balanced diet contains proteins, carbohydrates, fats and minerals. Nutrients help to provide the building materials and energy to support rapid cell growth and development throughout pregnancy. The faster the growth, the greater the demand for nutrients. Where the mother is malnourished, that is not eating balanced diet, the baby who relies on the mother for its nutrient requirements cannot grow properly. The organ which has most rapid growth, i.e. the brain, is usually the worse hit.

Research results show that prolonged malnutrition has many effects. The brain does not have its full number of cells. Sometimes a condition known as MED, Minimal Brain Dysfunction occurs. The child appears normal in every respect except that there are slight defects or damage in the brain. Learning of certain types of materials can be affected in later years. Other effects associated with malnutrition are still births (a baby dying before birth) miscarriage, difficult labour and low birth weight.

**ii. Health:**

Closely associated with nutrition is health. Good health is very important in our environment. When the pregnant mother is healthy, the unborn baby develops normally. But, poor health of the mother can affect her ability to nourish and protect the unborn baby. There are certain infectious diseases which can affect the growth of the baby. German measles or _Rubella_ can have very serious consequences. An attack of German measles in the first trimester of pregnancy may result in defective eyesight and mental deficiency. Some forms of sexually transmitted diseases such as gonorrhea, syphilis and the much dreaded AIDS can be passed on to the unborn child. Mumps could also have bad effect. Even continuous attacks of malaria can make the mother anemic and

therefore unable to furnish the baby with the normal oxygen supply and perhaps nutrients too. So the baby may be born small.

### iii. Drugs:

Drugs have to be used carefully during pregnancy because they too can have serious consequences. In our environment, young unmarried girls may try to get rid of unwanted pregnancy by taking "strong" or potent herbs. Also, some pregnant women including those who cannot afford to pay for medical antenatal care engage in self-medication. Although the effects of these practices have not been specially documented, there is evidence that potent drugs affect the unborn babies. A German drug, thalidomide, which was prepared to help pregnant women cope with "morning sickness" resulted in the birth of babies with physical defects. The drug apparently affected the process of cell differentiation and growth since it was taken in the first trimester of pregnancy. So many of the babies were born without arms and legs.

On the other hand, certain drugs which were medically prescribed for mothers whose pregnancies were threatened helped to make their children grow well. Research results show that generally they performed better than other primary school children in school work.

### iv. Age of the mother:

Another factor which can affect the wellbeing of an unborn baby is the age of the mother. Very young mothers and old mothers tend to have complications. Research has found that young adolescent before the age of 18 years and first time mothers after 35 years tend to have problems and difficult labour. In some part of Nigeria where child marriage is still practiced, the mothers and babies suffer because all the organs associated with birth are not adequately mature. As we will soon see difficult labour can be dangerous. The older mothers tend to have more multiple births – twins and triplets. Although many older mothers have normal babies, there is greater likelihood of their giving birth to "mongoloid" children. _Mongolism_ is a condition where the children are mentally retarded and do not have normal facial features. Their eyes are small, and narrow. The children have great difficulty looking after themselves and learning.

### v. Accident:

A light fall may not affect a pregnant woman and her unborn child adversely. But if she falls from a bicycle or is involved in an accident or a fight where she experiences heavy impacts, the baby may be affected. The placenta may be partly detached or completely cut. This means that the baby may not have the usual nutrients. Bleeding may occur; there may be miscarriage or other complications. Certainly the development of the child will be affected if the placenta becomes inefficient so that brain damage, small size or premature birth may result.

### vi. Irradiation (the use of x-ray):

The use of x-ray and "burning" effect of similar materials is to be discouraged. Only the medical doctor should order an x-ray to be taken when necessary. If for some reason the x-ray is taken in the first trimester of pregnancy, some cells might by destroyed. Without replacements, the baby

could be deformed. The eyes and the brain are usually the badly affected organs. The heart and respiratory system too can be affected.

### vii. Alcohol, Tobacco and Smoke:

For some years now, the World Health Organization (WHO) has been warning people in developing countries about possible harmful effects of drinking alcohol and tobacco smoking. Also, recently, the toxic effect of inhaling smoke constantly from cooking with firewood, cow dung, etc. on pregnant and other women has been discussed. The effect is particularly bad when the fire is in enclosed places. Generally, the babies of women who drink and smoke heavily are smaller. Small babies stand a higher risk of infections after birth than bigger babies. Alcohol, tobacco (chewed or smoked) and smoke may affect appetite and reduce nutrient intake. This, in turn affects how much nutrition the foetus obtains from the mother.

### viii. Blood Incompatibility:

Sometimes certain blood factors of the father and mother of a baby do not agree. They are said to be incompatible, they cannot work together even for the sake of the baby. One such factor is known as Rh factor (Rhesus factor). If there is such disagreement or incompatibility, some complications result in such a way that miscarriage may occur or the baby may experience health problems.

### ix. Emotional stress:

Generally, in our country, pregnant women are happy. The husband, in-laws, the woman herself have a very positive attitude toward pregnancy. Everyone prays for the safe arrival of the baby. However, in some circumstances this may not be the case. Death in the family, unwanted pregnancy, ill treatment from husbands and in-laws and other bad news may depress the pregnancy woman. Emotional shock and stress may reduce her appetite and so the quality and quantity of nutrients also become reduced. Even if she eats well, her body may refuse to utilize the food well. There is evidence to show that certain deformities may occur, the baby will be small. There could be mental retardation and some other nervous system disorders such as epilepsy. There could also be other physical defects.

### x. Difficult labour:

Because of the fact that medical facilities are not sufficient, also with ignorance, and poverty many babies are born outside hospitals and medical clinics. It is only when labour becomes very prolonged and difficult that some pregnant women are rushed to the hospital. Sometimes the babies die before birth – still birth. Sometimes the supply of oxygen to the brain cells is poor so some brain cells die off. The child then suffers from MBD (Minimal Brain Damage) or even mental retardation which is more severe. Later in class the child is unable to learn certain subjects. Sometimes, physical defects such as disfigured limbs occur. These defects can last throughout life.

As you can see, even after conception there is need to protect the unborn baby. Many of the factors can leave a permanent damage if the tissues of organs are destroyed. We have seen that the brain, eyesight can be permanently damaged. If this is so, the children in our classes cannot learn well. Even when we cannot see the damage, learning problems do occur.

Sometimes we can see the damage and they show up as physical handicap. Directly and indirectly, such handicaps influence the way the children see themselves – their self-concept – and the way they relate to other children. The teacher has a big responsibility not only in helping to educate people but in helping children who could have suffered from ill effects of pre-natal factors.

These are summarized in the table below:

1. Age of the Mother: Underage or overage both have implications for the development of the child.

2. Maternal Diet: Type of food and malnutrition affects child development negatively.

3. Irradiation: X-rays and Radiation.

4. Maternal Health:

(a) Endocrine disorders: Cretinism

(b) Infectious diseases: Smallpox, measles, chickenpox could be transmitted by the mother to the baby.

(c) Venereal diseases: AIDS; Gonorrhea, Syphilis, Rubella – all can cause auditory and visual impairment; mental deficiencies, physical deformities and deaths.

5. Rhesus Factor: Incompatibility of the blood of the mother and child often leads to miscarriages.

6. Maternal Stress: Physical and mental defects in the baby.

7. Maternal Attitudes: Emotional disposition of the child will be affected.

8. Drug use: Thalidomide tranquilizer can cause Phocomelia (malformation of the limbs).

9. Smoking: Infant death, miscarriage through placenta separations.

3.4 Educational Implications

We had asked why the teachers and the counsellors need to know about an unborn child if their job is in the classroom or during the counseling sessions. The major reason is that later behaviour and development are usually affected by events in the pre-natal period. We will now consider in greater detail what the counsellor or a teacher can do.

1. A counsellor can try to gather more information from parents about children with learning problems, physical handicaps and other forms of behavioural problems. Such questions should go back to the period of pregnancy. The information should improve the counsellors' understanding of individual differences.

2. The counsellor through advice to the teacher can make allowances for children with learning problems by slowing down, repeating, and using different techniques to teach them.

3. The counsellor should give insight to the teacher to make seating arrangements to accommodate those who have defects. The children should be made to feel wanted and accepted in the class.

4. Through the counsellors' understanding, teachers should be made to be aware that children can be trained to make up for the areas of deficiencies. There are certain skills and crafts which slow and mentally retarded children can do.

5. It is very important to enlighten the parents and other members of the public about pre-natal influences. When they know what to avoid, the babies will be protected and the children we teach will have fewer problems. The students can also begin to learn about some of the factors such as the importance of good nutrition, health, effects of drugs, alcohol and smoking.

6. Female counsellors and teachers of child bearing age can practice what they have learnt. The

male counsellors and teachers can help to protect their wives and babies during the pre-natal

stage by making sure that they avoid the ill effects of the factors we have discussed.

**Activity II:**

1. Show how the following affect growth and development:

(a) Heredity

(b) Environment.

2. List the six stages of child development which may take us to the end of primary school.

3. Give 2 reasons why a teacher should study pre-natal development.

4. State how any 4 pre-natal factors influence development and three implications of pre-natal

developments for the counsellors and teachers in classroom.


**3.5 Development During Childhood**

This period of child development forms the formative years. The events of the childhood period and its developmental trends cast long shadows into the future. The study of this period is therefore important to the educator for:

(i) An understanding of this period will aid him in his important task in shaping future development.

(ii) He can only understand the person as he is now by knowing what has gone before.

(iii) He will have to work with children whose early development has been impaired and who will need skillful help and guidance to overcome their difficulties.

**3.5.1 Stages of Childhood Development**

This period can be divided into 5, namely:

(a) Nenatal                             - Birth to four weeks.

(b) Infancy                          - 4 weeks to 2 years.

(c) Pre-School Period           - 2 to 6 years.

(d) Middle Childhood Period    - 6 to 9 years.

(e) Pre-Adolescence Period     - 9 years to puberty (this stage ushers in adolescence period).

**The Neonate**

Legally, life begins at birth but biologically it begins at conception. The newly born baby is referred to as the neonate during the first 4 weeks. The study of the neonate reveals children of abnormal behaviour who can be given any remedial treatment. Birth complications and damages do hamper post-natal development and at times alter it altogether.

**3.5.2 Some of the effects of birth damage and development are the following:**

**(i) Neurological Injuries**

Damages may be done to the brain or nervous system and the brain cells when the brain is compressed while foetus is passing through the birth canal. When birth is prolonged, the pressure on the brain may be hazardous and the immediate cause may be bleeding. If damages occur at the left side of the brain, speech may be affected and if near the nervous centre, it could affect the sense organs of the child i.e. eyes, ear etc.

**(ii) The Anoxia**

This is the interruption of the oxygen supplied to the brain. The damage done to the brain cells depend upon the severity of the oxygen deprivation. Anoxia may be caused by premature separation of the placenta from the foetus.

**(iii) Breach Birth**

The coming out of the baby with the buttocks first. This cuts off oxygen supply in the foetus blood stream. This also leads to anoxia. When, the foetus is cut off from the oxygen supply before the hand emerges, brain cells may be deadened and epilepsy is most common amongst such children.

Generally, nervousness and anxiety are more common among children born with difficulty. During infancy, it is difficult to discover symptoms of birth damages. This is more so when mental and physical developments take place more slowly. However, later in life, when the child is older the deficiencies begin to reveal themselves. Such symptoms are:

(a) Mental deficiency

(b) Motor disabilities

(c) Cerebral palsy

(d) Inactivity

(e) Epilepsy

(f) Sensory defects of hearing

(g) Malformation of muscular and skeletal systems.

**3.6 Motor Response of the Neonate**

At birth, the baby can make a large number of motor responses which depends on the maturation of the muscular development. The responses which have survival value for the baby help him to adjust conveniently in his environment and also to protect the child from dangerous stimuli. The most striking motor responses are the reflexes.

**(1) Blinking Reflex:**

This is the constriction of the pupils of the eyes in reaction to bright light. This reflex has a protective value from eye damage.

**(2) Sucking Reflex:**

This occurs when the infant is hungry.

**(3) Palmal Reflex (Grip):**

It is the tight gripping of the hand of the neonate when gently stimulated by any pressure. The reflex can be so strong as to maintain the neonate's weight when lifted on its grip.

**(4) Babinski Reflex:**

It refers to the extension of the big toe and the fanning of the others when the toe of the foot is gently struck. It shows activity.

**(5) Moro or Startle Reflex:**

This is the reaction to the stimulation such as applying hot or cold substance on the neonate's body, a sudden loss of support, loud voice starting from sleep, the baby throws arms apart, legs extended and hair grown black.

**(6) Gremasteric Reflex:**

This reflex is found only in male neonate. It refers to the direction of the penis when the upper thigh of the neonate is touched. The movement is not sexual arousal but a reflex.All the neonatal activities whether general or specific are random and uncoordinated e.g. rhythmic mouthing, turning of head, legs, hands and arms movement, kicking, turning, stretching legs and feet. They are very important as they are the basis from which the highly coordinated physical activities of the adolescence develop.

**3.7 Sense Organ Development of the Infant**

(1) Smell: The cells for smell at birth are well developed and this is shown by crying, head

turning and attempts to withdraw from any unpleasant stimuli.

(2) Taste: The cells for taste are as well developed at birth as they do in later life, because the sense of smell is developed. Hence, the infant can differentiate between pleasant and unpleasant stimuli. Reacts positively to sweet taste and negatively to sour taste.

(3) Organic Sensitivity: Hunger and thirst are well developed at birth and hunger constructions at birth in the stomach will produce painful sensation in the abdomen.

(4) Skin Sensitivity: Organs of touch, temperature and pressure are well developed and may be close to the surface of the skin. Sensitivity of touch and pressure is greater in the face region i.e. the lips. The sensitivity here is greater than the trunk or other parts of the body. All skin sensitivity are more highly developed in females than males.

(5) Vision: Neonates are colour blinded until the cones in the retina are well developed. Their field of vision is limited to a small area around them; this is because the muscles that control the eyes are very weak. They cannot focus both eyes simultaneously on an object.

(6) Hearing: Hearing is the least developed of all the senses at birth as a result of:

(a) The stoppage of the middle ear with Amitotic fluid. Sound waves cannot penetrate to the sense cells in the inner ear. The neonate is therefore unable to hear for several hours and even days after birth.

(b) The sense cells in the inner ear are yet to develop as at this stage. However, infants can discriminate the location of sounds within the 1st four days.

### 3.8 Childhood Development – Physical Development

Physical development refers to series of orderly changes that occur in body size i.e. weight and height; body proportions i.e. shapes as a result of changes in body size.

### 3.8.1 Importance

Physical development determines what the child can do at a particular stage of life. It influences the child's attitude towards himself and others i.e. if the child develops normally for his age, he will be able to compete on equal terms with his peers in sports and games. On the other hand, if he feels that he cannot cope with the pace set by his mates, he will develop feelings of personal inadequacy, insecurity, shame and at times feelings of martyrdom – wanting to kill himself. The child when fatigued may be irritable, the child who is malnourished may lack energy required by the school tasks.

### 3.9 Areas of Physical Development

### (1) The Nervous System

The development of the nervous system and the brain leads to new pattern of behaviour. The emotional behaviour of the child points to the ability to perceive in different dealings /situations. The extent of the social acceptance will determine his ability to understand, talk and feel the emotion of others around him.

**(2) The Growth of Muscles**

Physical development gives rise to growth of muscles which brings labour changes in physical capabilities and other kinds of activities which the child can partake in e.g. sports. The size and number of bones in the body increase and they become harder.

**(3) The Growth of Endocrine Gland**

Changes in function of the endocrine glands result in a new pattern of behaviour i.e. at puberty, the child shows likeness for a number of his opposite sex and he becomes conscious of what he wears and how he looks.

**(4) Body Homeostasis**

The behaviour of the child is influenced by his general physical conditions which are dependent upon the balance functioning of the different parts of the body. The maintenance of this balance is called body Homeostasis.

**3.10 Determinants of Physical Growth**

**(1) Heredity**

This factor is best seen in the physical appearance of the child e.g. the tendency is for the child to be more like his parents than to differ from them.

**(2) Environment**

Environmental factors include nutrition and balanced diet. Opportunity offered to the child in his community also matters i.e. bicycles, good diet, and games etc. helps in developing good physical fitness. Balanced diet is very important during the period of fast growth.

**(3) Emotional Factor**

The separation of the baby from his parents during infancy and early childhood can result in retardation of growth.

**3.11 Patterns of Physical Growth**

There are three broad patterns, viz:

**(a) Somatic Pattern**

This refers to body growth. It includes the growth of weight, height, body proportions and growth of various internal organs like respiratory system, digestive and the muscular systems. Growth rate varies from child to child. Some grow at rapid rate, some slow and others normal. Researchers have identified 2 periods of rapid growth and 2 of slow growth in children generally:

0 – 2 years - rapid growth

2 – Puberty - slow growth

Puberty – 16 years - rapid growth

16 – maturity - growth is gradual.

Between 9 – 14 years the girls are taller and heavier than boys. This is because they attain puberty earlier than the boys. The boys usually overtake them after puberty during the adolescence.

Since growth is energy consuming, the child is easily fatigued and irritable. Nutritional requirements of the child are greatest during periods of rapid growth especially puberty. If the child is undernourished, he becomes weak and irritable and will show no interest in school work. During rapid growth, constant new adjustments are made and the body hardly maintains homeostasis. The child thus becomes awkward and his motor coordination clumsy.

**(b) Neural Growth Pattern**

This refers to the nervous systems e.g. the brain. The brain is divided into two parts:

(i) The lower brain or cerebellum

(ii) The upper brain or cerebrum

The growth of the nervous system is extremely fast before birth and the first 4 years of life. For the 1st two years, the growth attains 75%. The lower brain triples its growth and weight at this period. The lower brain is responsible for the child's balance and postural control.

The upper brain controls the mental functions and the skilled movements of the child. The rapid growth of the cerebrum brings about the changes in the child's mental abilities until the upper brain is developed; the child is incapable of voluntary coordinated activities.

**(c) Sexual Pattern of Development**

This refers to primary and secondary sex characteristics. The primary sex characteristic means the growth of penis, testis, virgina and ovary. The secondary characteristics refer to the development of the breast, facial and public hair and the breaking of voice. These are not usually developed until the time of procreation. Nature delays the ability to give birth to children till the young people are physically, socially and psychologically ready for it. When the stage of maturity is attained, the characteristics develop very rapidly.

Sexual maturity is marked by puberty. Puberty is marked by Menarche for girls and Spermatozoa for boys. The average age is between 14 and 18 in Nigeria and the range between 10 and 20. This period ushers in adolescence.

**3.12 Motor Development**

At all ages many school activities are posited on the assumption that practice and growth have yielded sufficient development to allow for active participation by all pupils. Everything from the early use of scissors and crayons to the fine hand-eye coordination demanded by mechanical drawing requires a certain degree of motor development. Therefore, teachers should be aware of normal development sequences.

Motor developments at this stage often refer to:

(a) Growth in Motor Skills – Skills involved in the movement of the whole body i.e. jumping, running, climbing, balancing, pushing, pulling, etc.

(b) Finer Motor Growth – This refers to smaller skills involving the handling of tools etc.

### 3.13 Development of Prehension

This refers to the using of hands to hold objects. There are various stages involved in the development of prehension:

(i) A child first attempts to grip the object placed before him.

(ii) He tries to go beyond the object in order to draw it to himself.

(iii) The child tries to use his palm to hold the object as he cannot coordinate the fingers. This action is referred to as Primetime Skill.

(iv) He grasps the object between the thumb and the index fingers – this is called Palmer scoop.

(v) The child holds the object between its fingers and thumb – This is pincer grasp.

### 3.14 Development of Writing and Drawing

This development follows a sequential order.

(a) At 7 months a child can hold a large crayon but not a pencil as it is easier to hold bigger objects.

(b) At 18 months he can draw lines across or on papers with a crayon.

(c) Between 2 and 3 years he can scribble meaningless words or letters on the paper.

(d) Between 4 and 5 years, he can manipulate pencil i.e. can draw on a paper and constantly calls it Mummy or Daddy.

(e) At 6 years, he can control his fingers and can now write.

(f) At age nine, handwriting of reasonable quality has developed.

(g) At twelve, he has developed a skill of writing style. Here further changes can be made.

### 3.15 Development of Laterality

Laterality refers to the preferential use of one side of the body especially in assignments

requiring the use of an eye, one hand or one leg i.e. vision inside a bottle, throwing of a stone or

kicking a ball. Thus, we have Eyededness, Handedness and Leggedness.

Handedness – This is the preferential use of the right or left hand. There are three types:

(a) Dextrality - The use of the right hand.

(b) Sinistrality - The use of the left hand.

(c) Ambidextrality - The use of both hands.

The theories of heredity, cerebral dominance and that of physical size had been rejected because there is no preference for either hand at birth and that the observations of accident victims do not support them. However, the social development theory that preference for right hand was as a result of imitation, training and exercise was more acceptable.

### 3.16 Effects of Handedness

Our world is dextrally minded. Consequently, machines, tools, home appliances, sporting equipments, desk; chairs and drawers are designed for the right handers. Left handers will have to try to adapt these for use. In the school, guidance and demonstrations are often with right hand making, they are more meaningful to the right hander.

They therefore develop skills and greater speed than the left handers. Left handers often become fatigued easily and at times frustrated when they cannot cope with the speed of the right handers. Left handers are often conspicuous in their group and appear maladjusted. Thus, they have negative self-concept. However, handedness should not be forced. A forced change after 6 years may lead to stuttering and other forms of nervousness. These are symptoms of the tension resulting from the attempt to force a change on the child.

### 3.17 Generalizations about Motor Development

(1) Children, especially boys, place a high premium on physical strength, vigour and coordination. There is a close relationship between popularity and strength.

(2) There is only a slight relationship between a child's mental ability and his motor skill.

(3) Growth of muscle mass precedes its functional development, hence, it is not uncommon to find children who look big enough to be well coordinated but who are immature. This is one of life's hazards for the larger child for whom the world has unreasonable expectations.

(4) Motor skills in one area (such as running, jumping, etc.) do not correlate highly with

those in other areas, such as manual dexterity.

(5) Lack of self-confidence may preclude a child from receiving sufficient opportunities for

the necessary practice in developing motor skills e.g. as over protected child often shrinks

from contact games, thus, losing the opportunity for learning the physical skills involved

and importance of social contacts.

### 4.0 Conclusion

We have discussed the following aspects of human development from conception to childhood: Development of the embryo and factors at the pre-natal stage and factors affecting it such as nutrition, health, drugs, mother's age, etc. as well as their educational implications. We also considered development during childhood from birth, to the period of adolescence with considerations for physical, neural, sexual and motor aspects.

### 5.0 Summary

In this unit, we have:

• described the process of conception and its significances to child development;

• described the stages of pre-natal development;

• discussed the development of the human organism from unit to unit;

• stated the stages of childhood development;

• described the physical and motion development at each of the stages and give their educational implications; and

• gave the implications of the childhood development for educators.

### 6.0 Tutor-Marked Assignment

(1) Should secondary school counsellors and teachers as well be concerned with a study of child development? Why?

(2) The physically handicapped child is often not able to compete with other children at the very time when acceptance by peers may depend more on physical than personality traits.

(a) What problems does this pose for the counsellor or teacher?

(b) What can the counsellor or the teacher do to alleviate these problems?

(3) List school activities that are likely to demand a level of motor development not yet achieved by many pupils of a given age.

(4) (a) Define the concept of Growth.

(b) Define the concept of development.

(5) Show how the following affect growth and development.

(a) Heredity

(b) Environment.

(6) State and explain the principle which governs the direction of growth and development.

(7) List the six stages of child development which may take us to the end of primary school.

(8) Write a short note on (a) Infancy (b) Early Childhood.

### 7.0 References/Further Readings

Durojaiye, M.OA. (1976). A New Introduction to Educational Psychology; London: Evans.

## UNIT FOUR: THEORIES OF PERSONALITY DEVELOPMENT

**Contents**

- Personality and Its Development
- Emotional Stability
- Development of Personality
- The Structure of Personality
- Stages of Psychosexual Development
- Erik Erikson's Psychosocial Theory of Personality Development
- Havighurst's Theory of Personality Development
- Bronfenbrenner's Ecological Theory
- Theories of Moral Development
- Social Learning Theory of Personality Development
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

The study of human development from conception to adulthood is no doubt a complete one. It thus requires theories to guide it. A theory is a set of interrelated constructs, concepts, definitions and propositions that present a systematic view of phenomena by specifying relations among variables with the purpose of explaining and predicting the phenomena (Kerlinger, 1986). Theories therefore provide the necessary framework which guide psychologists in making observations and discoveries through empirical research. The findings of these investigations provide the basis for intellectual discourse of human personality.

There are various theories which attempt to explain the four dimensions of development –physical, cognitive, moral, social and emotional. These include:

(i) The Psychoanalytic theory of Sigmund Freud.

(ii) The Cognitive theories of:

(a) Jean Piaget;

(b) Lev Vygotsky; and

(c) Jerome Bruner.

(iii) The Psychosocial theories of:

(a) Erik Erikson;

(b) Robert J. Havighurst; and

(c) Urie Bromfenbremer

(iv) The Social Learning theory of Albert Bandura

(v) The Moral development theory of Lawrence Kohlberg; and

(vi) The Learning theories.

This unit will focus on these theories bringing out the psychological issues pertaining to personality development in each of them as they relate to the classroom situation.

## 2.0 Objectives

At the end of this unit, you should be able to:

(i) define and explain what personality is;

(ii) discuss the various dimensions of personality;

(iii) explain the stages of development of each personality dimension;

(iv) identify and describe the educational implications of personality development;

(v) write out how you can make use of the knowledge of the stages of personality developments to promote healthy personality development of the child in the classroom;

(vi) explain briefly each personality development theory and its educational implications.

## 3.0 Main Content

### 3.1 Personality and Its Development

There has not been any significant difference in the definitions of personality among psychologists. It is defined by

Lovell, K. (1973) as "the whole person's outstanding characteristics, his abilities, his emotional and social traits, his interests and attitudes".

Barnes & et. al. (1984) tried explaining the concept in his quest to understand answers to the question "Am I me or am I the situation", pointing out the inescapable interaction between personal disposition and the situation.

Both definitions pointed at the significance of inherent biological qualities of human beings and the environment and their effect on human personality.

### 3.1.1 Factors affecting Personality Development

Even though we are going to discuss the various theories of personality development, it is necessary for us to examine those forces that influence personality development on a general basis.

1. The Home: The child inherits some behavioural traits from his parents. Apart from this, the parents are the first teachers of the child and he learns a lot from them. The care and affection either materially or psychologically which the child enjoys helps him to have a sense of security,

trust, respect for authority and so on. A child who enjoys no love from his parents is bound to develop hatred for others in his later life.

2. The School: The influence of the school in the personality development of the child is tremendous. The teacher's behaviour, attitude and reaction to his colleagues and pupils go a long way to influence the children's personality. Teachers should note that whatever they say or do are in most cases emulated by the pupils. If the teacher is friendly, warm, considerate, cooperative and well adjusted, his pupils will grow up to produce similar personality characteristics.

3. Personal Experiences: Every child has his unique past experiences which might be pleasurable or unpleasurable. If a child does not experience crises in the family like loss of beloved ones, failures, frustrations, serious illness, he will grow up to be happy and this will enhance a wealthy personality development. But for others who are less fortunate, their personality development will be the negative side.

4. Cultural Influence: The moral and social values of a society also have strong influence on the personality development of the child. A child who grows in a society which lays emphasis on personal achievement tends to work hard without necessarily relying on others.

5. The Peer Group: The influence of the peer group becomes more dominant on the child during the adolescent period. At that period, parents' influence becomes very insignificant. Each peer group has its own code of conduct which every member must respect. This is why many parents become alarmed at the sudden changes in the behaviour of their children during the adolescent stage. What is responsible in most cases is the influence of the peer group.

6. The Child's Needs and Motives: Every child has his own unique needs and motives and efforts are usually made to meet such needs. A child who takes interest in the game of football might later become a professional footballer. Our needs and motives which often direct our behaviour also influence our personality either in the positive or negative way. It is, therefore, the duty of teachers to assist his children develop positive goals and work vigorously towards their achievement. Through an understanding of the physical, social, and psychological needs of their children, teachers are in a position to assist in promoting healthy personality development of their pupils.

However, based on the general assumption that personality refers to the peculiar thinking of the individual, his emotions and behaviours in adapting to the world, some psychologists proposed five major factors that make it up. These include emotional stability, extraversion and openness to experience. The other two are agreeableness and conscientiousness. Apart from these major factors, however, there are other equally important ones such as how positive or negative and how self-assertive a student can be. By positive and negative, they mean how joyous or happy and how angry or sad a student is respectively.

### 3.2 Emotional Stability

The emotional stability of an individual affects his personality by determining whether he is calm or anxious in his approaches. It also tells whether he considers himself as secure to perform or insecure to participate in activities. And whether he is self-satisfied with his tasks or is self-pitying is also indicated by his emotional stability.

### 3.2.1 Extraversion

This factor is responsible for indicating whether the student is sociable or retiring and whether he is fun-loving or usually somber. It also shows how affectionate or reserved one is in his association with others or during events.

### 3.2.2 Openness to Experience

The student's imaginative power or his practicability is known by his openness to the relevant experience. It indicates whether he is more interested in variety or in routine and whether he is more independent in his dealings or simply conforming to others' instructions and suggestions.

### 3.2.3 Agreeableness

It matters a lot to determine whether the student is softhearted or ruthless in his dealings with

others. Is he a trusting type or generally a suspicious person? We need to know his position when

it comes to whether he is helpful or uncooperative in his behaviour.

### 3.2.4 Conscientiousness

Lastly, the factor of conscientiousness affects the personality of an individual by helping to determine whether he is usually organized or disorganized, careful or careless. It also suggests whether he is a disciplined individual or is normally given to impulsive behaviour.

### 3.2.5 Person-Situation Interaction

In reaction to factors that affect the personality of our students, it is noteworthy however that the description of the personality of each of them is not strictly speaking a straight jacket affair. The situation in which the subjects find themselves must be put into consideration before conclusion is drawn to label them according to the traits enumerated in the factors that affect their personality. This is because their interactions may vary from one situation to another. Therefore, it is for the teacher to observe the situations that are more comfortable to their respective students, to provide cognate learning activities for them.

### Activity I:

1. List and explain the factors affecting personality development among children.

2. Suggest ways teachers will contribute to the healthy development of personality among children; vis-à-vis, factors affecting personality.

### 3.3 Development of Personality

### 3.3.1 The Psychoanalytic Theory of Development

Sigmund Freud (1856 – 1939) was a Psychiatrist who used Psychoanalysis to treat his patients. Psychoanalysis is the method of interviewing a person with the purpose of retracing and reliving his emotional life from early infancy.

Freud distinguished three levels of consciousness – the conscious, the preconscious and the unconscious mind. We are aware presently of the content of the conscious mind, only temporarily aware of the contents of the pre-conscious mind but permanently unaware of the contents of the unconscious mind.

You may not be thinking now of the name of your class prefect but you can easily bring it to the conscious mind from the pre-conscious mind. The contents of the preconscious mind were once conscious and can be returned to consciousness easily when needed.

The unconscious mind stores primitive instinctual motives plus memories and emotions that are so threatening to the conscious mind that they have been unconsciously pushed into the unconscious mind through the process of **Regression.** The contents of the unconscious mind are not normally accessible to consciousness though, they can rarely be made fully conscious with great difficulty.

### 3.4 The Structure of Personality

Psychoanalytic theory asserts that the mind is composed of three parts, each with a different function: the **id,** the **ego,** and the **Superego.**

### 3.4.1 ID – The Selfish Boast

Id refers to the biological component of the personality. The id is composed primarily of two sets of instincts, Life Instincts (Eros-love and self-preservation) and Death Instincts (Thenatos-death, hate, aggression or destruction).

The life instincts, termed Libido, give rise to motives that sustain and promote life such as hunger, self-protection and sexual desire. The id which is the oldest of the personality systems is primitive, raw, animalistic, unorganized, obey no rules, shameless, knows no laws and remain basic to the individual throughout life. It operates on the pleasure principle. The id wants to obtain immediate pleasure and avoid pain, regardless of how harmful it might be to others.The id has no conception of reality and attempts to satisfy its needs using Primary process -thinking i.e. by simply forming a wish-fulfilling mental image of the desired image. Primary process is used when day-dreaming about having sex, becoming rich or planning a revenge on one that offends us. Primary process satisfies motives through imagination rather than in reality. However, interactions with parents and the real world assist in converting the id into two other parts of the mind the ego and superego in order to cope effectively with the world.

### 3.4.2 Ego – The Executive of Personality

The Ego develops from the id under the influence of the external environment. The ego operates on the Reality Principle. It holds the id in check until a safe and realistic way has been found to

satisfy its motives. The ego always helps the id to fulfill its needs through realistic ways. Thus, the ego is the executive of the personality in that it uses cognitive abilities to manage and control the id and balance its desire against the restriction of reality and the superego.

### 3.4.3 The Superego

The id and ego have no morals. Restrictions are placed on the actions of id and ego when superego develops. The superego performs the judicial function of the personality through the Ideal Principle. Parents are the main agents for creating superego as the system of values, norms, ethics and attitudes are transferred to the children through them. Parental punishment creates the set of moral inhibitions known as the Conscience whereas their rewards set up a standard of perfect conduct in the superego called the Ego Ideal.

Most of us do not steal, murder and rape not because we do not want to or because our egos could not find relatively safe ways to do so but because our superegos hold these desires in check.


Often ego may not find a way to satisfy the motive of id and so a substitute is found. A child that cannot kick his father may kick his brother or Teddy Bear. The process of substituting is called Displacement. A socially harmful goal may be substituted with a socially desirable goal i.e.

aggressiveness with sporting activities.

Another process that allows individuals operate in socially acceptable ways without friction is Identification. Individuals identify role models in the society and pattern their behaviours after these models. Identification is a key step in developing the superego.

### 3.5 Stages of Psychosexual Development

Discussions on personality and how it develops is not a new exercise. The issue has been severally discussed right from the pre-Freudian era during which the early years of a child were assumed to be insignificant and of no effect in his personality. He was assumed to be only a human in the making, beginning to interact only at the age of six and seven. Based on this early conception of the child, attention of different societies and cultures shifted to satisfying adult needs only, ignoring that of the child. This has left the most vital parts of his life unattended to and with entirely no psychological significance in the study of his growth and development.A shift in this perception of the child however started with the work of Sigmund Freud, who believed that adult personality can only be understood viewing from the early childhood experiences (before entering school). These experiences, according to him, have everlasting implications on the kind of his personality later in life. He identified five important stages of development, namely, the oral stage (0 to 18 months), the anal stage (1½ to 3 years), the phallic stage (3 to 7 years), the latency stage (6 to 11 years) and genital stage (11 to 14+ years). These years are very incredible in the development of adult's personality.

Excessive punishment or reward from parents or traumatically stressful events experienced during a period of development can leave a person's personality "Stuck or Fixated", at that stage. This fixation of personality development will leave a lifelong mark on the personality. Fixation,

according to Freud, is an emotional attachment to an early stage of development which makes it difficult for a developing child to form new attachments, develop new instincts or establish new adaptations. Fixation reveals inadequately resolved problems in the developmental stage during which it occurs.

Regression, a special type of fixation may occur in later life of an individual. Regression is the return or reversion to an earlier stage of Psychosexual development. The individual will actually display the childish behaviour appropriate to the period in question i.e. bursting into tears and sucking of fingers. The weaker the resolution of psychosexual conflicts, the more vulnerable the individual is to the forces of regression under conditions of emotional or physical stress later in life.

The developmental stages of development result from a shifting of the primary outlet of libidinal energy of the id from one part of the body to another. These parts are called the Erogenous Zones.

### 3.5.1 Oral Stage (0 to 18 Months)

At the oral stage, the infant child is heavily dependent upon its parents for the satisfaction of his basic needs, and unless these needs are catered for the child will experience serious developmental problems with an everlasting consequence on his personality. Such an individual with problems at this stage is characterized by argumentative, pessimistic, caustic and sarcastic behaviour. They may also develop anxiety, and insecurity. These basic needs are that of food, security, love and affection to mention but just a few. Freud therefore suggested good child rearing habits such as breast feeding, personal care, love and affection etc. This stage is called dependency stage.

### 3.5.2 Anal Stage (1½ to 3 Years)

The anal stage is described in the biological sense of the word. The child would need to be controlled and guided in the satisfaction of anal desires. This will teach him self control and independent tendencies. The two combines are very important in the emotional growth and development of children. Excessive punishment for or failure for toilet training may create a fixated personality that is either stingy, obstinate, stubborn, and compulsive or cruel, pushy, messy and disorderly.

### 3.5.3 Phallic Stage (3 to 7 Years)

The phallic stage is referred to as the stage of identity. It covers a period between the ages of 3 to 7 years. At this stage the genitals become the primary source of pleasure. The child enjoys touching his or her genitals and develops a sexual attraction for the parent of the opposite sex –Oedipal or Electra complexes for boys and girls respectively. Failure to resolve the phallic stage results in phallic personalities characterized by egocentric, selfishness, impulsiveness and lack of genuine feelings for others. This kind of individuals are said to be narcisstic. During these years, the oral and the anal dimensions integrate and no new elements are added thereafter. The interplay of these elements determines the personality of adolescents and beyond and their character. The more positive the elements, the more propounding characters are achieved. The implications of this discovery by Freud are that parents should care very much on the kind of nurturing they provide

to their children. They must affectionately interact and train their children towards the objectives of each of the identified stages of emotional development.

3.5.4 Latency Stage (6 – 11 Years)

During this period, sexual interest is relatively inactive. Sexual desire has been strongly repressed through the resolution of the oedipal or electoral complex. Sexual energy is now sublimated and converted into sports, doing school work, riding bicycle etc. Children should therefore be assisted to develop a degree of competence in these areas. The opportunity should also be adequately provided.

### 3.5.5 The Genital Stage (11 – 14+ Years)

This period is characterized by obvious sexual maturation manifested in the onset of puberty at

adolescence. There is renewed interest in obtaining sexual pleasure through the genitals.

Masturbation becomes frequent. Sexual and romantic interest in others also becomes a central

motive.

Though, relationships are usually for selfish genital pleasures, individuals at this stage often have genuine care for the loved ones as much as or more than self. Sublimation continued to be important during this period as sexual and aggressive id motives become transformed into energy for marriage, occupation and child rearing.


### 3.6 Erik Erikson's Psychosocial Theory of Personality Development

Following the psychoanalytic theory, Erickson developed the theory of Psychosocial personality development. The theory stresses that any psychological phenomenon must be understood in terms of the interplay of biological, behavioural, experimental and social factors. The core of human functioning is based on the quality of interpersonal relationships. According to Erikson, the individual's personality is always under the influence of social forces from early childhood to adulthood. Every behaviour is therefore a product of the individual's genetic make-up and social history. He based personality development on epigenetic principle, which postulates personality of an individual to be ego driven. He pointed that "personality form as ego progresses through series of interrelated stages".

Based on this epigenetic principle, he proposed eight stages that are sequential, interrelated and universal.

As no individual develops in isolation of his or her social environment, the manifestation of the problems of each stage is culturally determined. These stages are:

*Trust versus Mistrust (birth – 1 year)*

*Autonomy versus Shame and Doubt (1 – 3 years)*

*Imitative versus Shame and Guilt (3 – 5 years)*

*Industry versus Inferiority (6 – 11 years)*

*Identity versus Confusion (12 to 18 years)*

*Intimacy versus Isolation (Young Adulthood)*

*Generativety versus Stagnation (Middle Adulthood)*

*Integrity versus Despair (Old age).*

(i) Birth to 1 year (trust vs. mistrust): The experience here is in terms of childcare, maternal relationship and genuine affection, etc. The child at this stage needs to be gratified these basic needs consistently and continually. He needs to have some kind of experience to think of the world as a dependable and safe place for existence. If on the other way round, inadequate and inconsistent care is shown to the child, there would be a growing mistrust, fear and suspicion in the perception of the world by the child. Thus, parents, especially mothers with whom the child first identifies, should develop close intimacy with their children. They must provide the protection, affection and gratify those basic needs of the child so that the child perceives the world as a dependable and safe place for existence.

(ii) 2 to 3 years (years of autonomy versus shame and doubt): Coming next in experience after trust or mistrust is autonomy versus shame and doubt. This stage coincides with the pre-school age. According to Erickson, children should "be encouraged and allowed to do what they are capable of doing at their own pace and in their own way but with judicious supervision by parents and teachers", pointing out that this will aid their sense of autonomy. Shame and doubt would inadvertently erode the child's life if there is a failure in the gratification of these needs.

It is therefore expedient to stress that not all children at this stage are placed under the care of school teachers. The working mothers would rather employ the services of nannies that are ill-informed about children's needs at this particular age. The mothers themselves are supposed to know the importance of this stage of children's life in the development of their personality.

In the kindergarten school, considerable level of autonomy is achieved by pre-school age children, especially if they are allowed to do what they are capable of doing by themselves. The feeling of shame and doubt comes in only if they are restricted.

(iii) 4 to 5 years (Initiatives versus guilt): This stage is very crucial in the development of children's initiatives. The most important activities that children would like to be involved in at this stage are physical activities and using language to set their initiatives. Children are too playful at this stage and can mimic words that they even do not necessarily understand. They should not be rebuked or reproached for taking part in these activities. If in school, teachers must answer their questions. Learning materials that children will play with are essentially required to aid the development of children's initiative.

Teachers must make concerted effort at using activity centred approach in their teaching. The feelings of guilt must be minimized through de-emphasizing jealous tendencies by not comparing children activities.

(iv) 6 to 11 years (Industry versus Inferiority): This stage represents the elementary and primary age in the life of children. It is characterized by children's intellectual curiosity and performance. Children would like to be recognized for producing things, which will make them achieve some sense of industry. They need encouragement to do things and be praised for achieving results. If their efforts are unsuccessful, or if they are derided or treated as bothersome, inferiority results and this will have an everlasting consequence on their personality. Teachers must develop the industrious tendencies among their pupils by giving them enough opportunities and encouragement to experience "pleasure of their work". They should be challenged with variety of assignment and projects that are described in terms of specific objectives. The children must be giving tasks commensurate to their levels to be undertaken at their own rate – with remedial instructions at their realization of any difficulty. They must not be forced to compete with their mates so as not to create a sense of inadequacy and inferiority in them.

(v) 12 to 18 years (Identity versus Confusion): This corresponds to the puberty and adolescence periods of life. It is the most delicate and presents with variety of developmental tasks. It is characterized by children seeking for the attainment of independence and becoming more concerned about what they would become in future. It is a period of intense biological, physical, emotional and intellectual transformation among adolescents. Their main goal in life is the development of identity occurring from "confidence of sameness and continuity".

The major threats are the confusion of roles, particularly about sexual and occupational identity.

Teachers should help adolescents integrate their roles in different situations so as to experience continuity in their perception of themselves. This will invariably develop their identity, which is the main goal of their lives. Failing this, there would be depression, frustration and self-withdrawal. Children at this age must be encouraged to subordinate their childhood behaviour to a new kind of self-identification, which is only achieved through competitive apprenticeship. They should be cheered to face the challenges of life more seriously devoid of playfulness and youthful exuberances. Teachers should encourage and help them make rational decisions with "increasing immediacy and commitment". The adolescents should be counselled on career options that would lead them to develop their self-identity as the biggest commitment of person's life rather than the gratification of other subordinate childhood desires. Any delay in taking rational decisions and following it up with commitment would lead to what Erickson calls "Psychosocial moratorium", leading to the loss of sense of identity, the acid of self-disdain.

(vi) Intimacy versus Isolation (young adulthood): Adulthood starts from the years following adolescence period. It is characterized by continuous insistence on identity and eagerness to use it with others. The young adult seeks to be intimate with others in the same age group. If they achieve the goals of this stage, they fare successfully, otherwise they become isolated.

Teachers have the duty of encouraging students to accept their personal appearances and urging them to select short term goals in the face of threatening career choices. The worth of students should be recognized and their inconsistent behaviours tolerated and constructively refined.

(vii) Generativity versus Stagnation (Middle age): This stage is essentially poised at "establishing and guiding the next generation". None realization of the goals of this age results in stagnation and self-absorption. Teachers have little or no role to play in this as most middle age people have either accomplished their developmental tasks successfully or failed to achieve the goals of this stage. Those that have failed can hardly remediate the loss, but to reluctantly accept their fate.

(viii) Integrity versus Despair (Old age): This is the end of Erickson's hierarchy of personality development. The stage is particularly concerned with integrity seeking. In other words, it is the stage of self-actualization. Despair is the resultant consequence of failing to realize the goals of the stage.

**Activity II:**

1. Examine carefully, the personality issues both before and during the Freudian era pointing out their educational implications.

2. Identify and explain the roles of teachers in aiding the development of children's personality at the various stages of development.

**3.7 Havighurst's Theory of Personality Development**

Another Psychologist that further elaborated on Erickson's view on personality development was Robert J. Havighurst. Asserted that "Erickson's analysis of ages of development could be applied in a different way to shed light on other facets of development. He suggested some developmental tasks for a different age levels, starting from the pre-school and kindergarten age.

1. Learning simple concepts of societal and physical reality. It is a familiarity seeking stage with the social surroundings including everyday objects. Children are curious at this stage asking questions. The questions of if answered expose them to experiences they hitherto do not have. The child would want to relate emotionally with his parents, siblings and other people around mostly through imitation. He would like to distinguish right from wrong and develop a conscience.

The tasks appear to be incompatible with the age whose accomplishment would be difficult. The personality of children at this age is just beginning to take shape, and assuming that children are in a position to undertake these developmental tasks will amount to impossibilities.

However, teachers are expected to serve as desirable role models and expose children to many objects and experiences. They should patiently answer their curious questions.

2. Elementary grade: Nine (9) developmental tasks have been identified for this age grade. They include learning physical skills necessary for ordinary games; building wholesome attitudes towards oneself as a growing organism; learning to get along with age mates; learning appropriate masculine or feminine roles; development of fundamental skills in reading, writing and calculations. Others are developing concepts necessary for everyday living; developing

conscience, morality and scale of values; achieving personal independence and developing attitudes towards social group and institutions.

Parents and the significant others have a stake in ensuring that children emerge from these Herculean developmental tasks successfully. They must bring to bear al the teaching principles and methods in teaching/learning situations. They should emphasize socially acceptable behaviours, health and eating values to their students. They should make effort at seeping and integrating curriculum materials and experiences that would lead to the accomplishment of masculine and feminine tasks.

3. Secondary grades: At the secondary grade, nine (9) developmental tasks have been similarly identified by Havighurst, which are related mostly to adolescents and adult behaviours. The list comprises of:

> *Achieving new and mature relations with age mates of both sexes;*
>
> *Achieving a masculine or feminine social role;*
>
> *Accepting one's physique and using the body effectively;*
>
> *Achieving emotional independence from parents and other adults;*
>
> *Achieving assurance of economic independence and selecting and preparing for*
>
> *occupation;*
>
> *Preparing for marriage and family life;*
>
> *Developing intellectual skills and concepts necessary for civic competence;*
>
> *Desiring and achieving socially responsible behaviour; and*
>
> *Acquiring a set of values and an ethical system as a guide to behaviour.*

Havighurst emphasized the importance of timing and teachable moments in addressing issues related to the achievement of the developmental tasks, failing which there would be an adverse repercussion in later aspects of development. These issues have also been discussed under psychology of adolescence.

**Activity III:**

1. Identify the similarities and differences (if any) in the Piaget and Havighurst theories of personality development.

2. Examine the educational significance of Havighurst theory and suggest appropriate role eache would play in addressing the developmental issues of the theory.

3.8 Bronfenbrenner's Ecological Theory

The third theory that addresses children's socio-emotional development is the ecological theory developed by Bronfenbrener. It focuses primarily on the social contexts in which children live and

the people who influence their development. The theory consists of five environmental systems that range from close interpersonal interactions to broad-based influences of culture.

### 3.8.1 Micro-System

This is a setting in which the individual spends considerable time. Some of these contexts are the student's family, peers, school and neighbourhood. The child reciprocally interacts with others and helps to construct these settings.

### 3.8.2 The Meso-System

This involves linkages between Microsystems. The connections between the family and the

school experiences, between the family and peers etc. Experiences from one micro-system may

impinge on experiences from another micro system e.g. a rejected child from a broken home may

not relate well with the teacher in the school.

### 3.8.3 The ExoSystem

This is at work when experiences in another setting, in which the student does not have an active role influence what students and teachers experience in the immediate context. The role of education supervisors and school Boards may be part of such experiences.

### 3.8.4 The Macro-System

His involves the broader culture in which the students and teachers live including the societal values, customs and norms e.g. some cultural practices are known to promote gender disparity and stereotyping while others do not. The roles of ethnicity, religion and socio-economic factors in children personality development are also significant.

### 3.8.5 The ChronoSystem

This refers to socio historical conditions of students' development e.g. children today are living in the information age in which the world is now a global village. Their development will be different from that of say children of some 30 years ago. The information super highway will affect the present children's personality development.

Bronfenbrenner's theory is one of the few systematic analyses that includes both micro and macro environments. Critics of the theory say it lacks attention to biological and cognitive factors. They also point out that it does not address step by step developmental changes of children.

### 3.9 Theories of Moral Development

### 3.9.1 Piaget's Theory

Piaget believed that moral development is advanced through the mutual give and take of peer relations. Parents play a less important role in children's moral development because they have so much more power than children and hand down rules in an authoritarian manner. He proposed a two staged moral development theory.

**1. Heterogonous Morality Stage:**

This stage lasts from approximately 4 to 7 years of age. Justice and rules are conceived of as unchangeable properties of the world, removed from the control of people. The heteronomous thinker believes in Immanent Justice. Immanent justice is the concept that if a rule is broken, punishment will be meted out immediately. Children of this age believe that a violation is in some way automatically connected to punishment. When the child reports an older sibling he or she expects you to punish the person immediately.

**2. Autonomous Morality:**

This is Piaget's second stage of moral development reached at about 10 years of age or older. At this point, the child becomes aware that rules and laws are created by people and that in judging an action, the actor's intentions as well as the consequences should be considered. Children of 7 to 10 years of age are in a transition between the two stages, showing some features of both.

**3.9.2 Kohlberg's Theory**

Lawrence Kohlberg stressed that moral development primarily involves moral reasoning and unfolds in stages. He constructed a theory of moral development that has three main levels with two stages each. The key concept in understanding this theory is Internalization.

Internalization refers to the developmental changes from behaviour that is externally controlled to behaviour that is internally controlled.

**1. Pre-Conventional Level**

This is the lowest level of moral development. At this level, the child shows no internalization of moral values. Moral reasoning is controlled by external reward and punishment. This is the stage called Punishment and Obedience Orientation.

At stage two called Individual and Purpose, moral thinking is based on rewards and self-interest. Children obey when it is in their best interest to obey. What is right is what feels good and what is rewarding to them.

**2. Conventional Level**

This is the intermediate level. At this level, the child's internalization is intermediate. The child abides internally by certain standards, but they are essentially the standards imposed by other people, such as parents, or by society's laws.

At the stage of Interpersonal Norms, the child values, trust, caring and loyalty to others as the basis of moral judgements. Children often adopt their parent's moral standards at this stage, seeking to

be thought of as a "good girl" or a "good boy". At the stage of social system morality, moral judgements are based on understanding of the social order, law, justice and duty.

## 3. Post-Conventional Reasoning Level

This is the highest level. At this level, morality is completely internalized and not based on external standards. The child recognized alternative moral courses, explores options and then decides on the moral code that is best for him or her. The two stages here are:

*Community Rights versus Individual Rights Stage* - The child understands that values and laws are relative and that standards can vary from one person to another. Students at this stage recognize that laws are important for society but know that laws can be changed. The student believes that some values, such as freedom, are more important than the law.

*Universal Ethical Principles Stage* - The person here has developed moral judgements that are based on universal human rights. When faced with a dilemma between law and conscience, individualized conscience is followed.

### 3.10 Social Learning Theory of Personality Development:

### Albert Bandura

To the social learning theorists, personality is simply something that is learned, it's the sum total of all the ways we have learned to act, think and feel. Since we learn from other people in the society, the theory is termed Social Learning.

This theory has its root in cognitive view of learning. The cognitivists argued that personality is no more than learned behaviour and that if you understand the processes of learning, you can understand how personality is developed (Pavlov, J. B. Wartson, B.F. Skinner, etc.). The key concepts in the study of personality from viewpoint of social learning theory are classical conditioning, operant conditioning, and modelling. These concepts will be adequately discussed later under "Learning Theories".

Social cognitive theory states that social and cognitive factors, as well as behaviour, play important roles in learning. 'Cognitive' factors might include student's beliefs, attitudes, strategies, thinking and intelligence. Social factors might include students' observing their parents' achievement behaviour.

Person factors include personality traits and temperament – introvertion or extrovertion, active or inactive, calm or anxious, friendly or hostile, etc. Thus, from this theory, a person will develop an adequate personality only if he or she is exposed to good models and is reinforced for appropriate behaviour. On the other hand, an inadequate environment will result in inadequate personality development. Bandura is also a behaviourist but differ from traditional behaviourist by:

(i) Seeing people as playing an active role in determining their own actions, rather than being passively acted upon by the learning environment.

(ii) Emphasizing the importance of cognition in personality development.

He asserted that social learning is Reciprocal Determinism: Not only is a person's behaviour learned, but the social learning environment is altered by the person's behaviour.

The reciprocal determinism model consists of three main factors, Behaviour, Person (cognitive) and Environment. These factors interact to influence learning.

**BEHAVIOUR**

Person/Cognitive Factors                    Environment
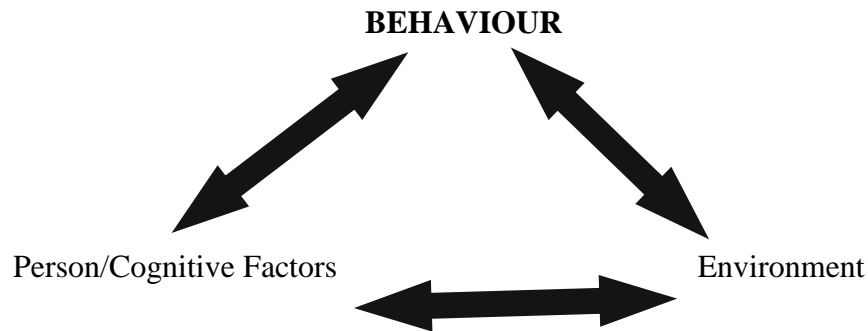
According to Bandura, our learned cognitions are the prime determinant of our behaviour. A student who thinks others find him or her boring will act quiet and shy.

**Activity IV:**

Give an example to illustrate reciprocal determinism in action in your school.

In this theory, SELF-EFFICACY, is the perception that one is capable of doing what is necessary to reach one's goals – both in the sense of knowing what to do and being emotionally able to do it. Students who perceive themselves as self-efficacious accept greater challenges, expend more effort, and may be more successful in reaching their goals as a result. Others with a poor sense of efficacy may not even study as they believe they won't make it and as a result will always fail.

However, it is noteworthy that our perceptions of self-efficacy are learned from what others say about us, from our direct experiences of success and failure, and from other sources, these cognitions continue to influence our behaviour "from the inside out".

Bandura also emphasizes the learning of personal standards of reward and punishment by which you judge your own behaviour. This he termed SELF-REGULATION. You learn your personal standards from observing the personal standards that other people model. Also, from the standards that others use when rewarding or punishing you. These, you put together to govern your own behaviour in a self-regulatory manner. Thus, when you behave in ways that meet personal standards, you reinforce yourself through a sense of pride and happiness. On the other hand, you punish yourself when you fail to meet personal standards through feelings of guilt, disappointment etc.

A number of programmes such as modeling, or observational learning, self-monitoring techniques and self-regulatory programmes have been developed from the social learning theory approach.

Critics of social learning theory say it places too much emphasis on behaviour and external factors and not enough on the details of cognitive processes. They are also criticized for not showing developmental stages and giving inadequate attention to self-esteem.

**Activity V:**

Describe Bandura's Social Learning Theory.

**4.0 Conclusion**

Briefly, theoretical development of personality is given in this unit. Discussion on issues bordering on the subject started as early as pre-Freudian era when it was assumed that personality development starts only at the ages 6 and 7.

Sigmund Freud and Piaget in their different researches found that the experiences of the child at birth affect his personality and went further to suggest certain developmental stages during which personality develops. They suggested certain development tasks that must be accomplished that would enhance healthy personality development. The unit also discussed other factors that affect personality development and which have great application for parents and the school.

**5.0 Summary**

In this unit, we:

• discussed personality;

• discussed the various dimensions of personality;

• described the stages of development of each personality dimension;

• identified and described the educational implications of personality development;

• explained how you can make use of the knowledge of the stages of personality developments to promote healthy personality development of the child in the classroom; and

• explained briefly each personality development theory and its educational implications.

**6.0 Tutor-Marked Assignment**

1. The emotional stability of an individual affects his personality by determining whether he is calm or anxious in his approaches. In the light of the above statement, briefly explain the following concepts: extraversion, openness to experience, agreeableness, conscientiousness and person-situation interaction.

2. Compare and contrast the ID, Ego and Superego as it affects the composition of the mind.

3. Briefly explain the stages of psychosexual development.

4. What is lesson can be learnt from Freud's Psychoanalytic Theory of Development?

5. What are the similarities and differences between the following theories?:

(a) Erickson's and Havighurst's Psychosocial Theory of Personality Development;

(b) Piaget's and Kohlberg's Theories of Moral Development;

(c) Bronfenbrener's Socio-emotional Development and Bandura's Social Learning Theory of Personality Development.

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# UNIT FIVE: THEORIES OF COGNITIVE DEVELOPMENT

**Contents**

- Arnold Gessel IS Theory of Growth
- Cognitive Development by Jean Piaget
- Vygotsky's Theory
- Comparing Vygotsky's and Piaget's Theories
- Incorporating Vygotsky's Theory in the Classroom
- Results of Studies of African Children
- Ways of Stimulating Intellectual Development
- The Way Language Develops
- National Policy on Education and Language in the Primary School
- Issues from the Policy
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

In educational circles, intellect is the ability to think, reason and solve problems. In adolescence, intellectual development is at its peak. The students in our secondary schools are in this stage of development. It is vital for you as a teacher to appreciate this fact and endeavour to organize learning and teaching in such a way as to optimize learning.

In this unit, we shall study intellectual development from childhood through to adolescence showing the process and steps of growth as one step leads to the next. We shall at the end highlight the intellectual development in the adolescence years and their educational implication.

We shall examine the theories of cognitive development of Jean Piaget and Jerome Bruner.

## 2.0 Learning Outcomes

At the end of this unit, you should be able to:

(i) describe the main features in Piaget's and Bruner's theories of cognitive development;

(ii) describe the changes in cognitive ability that occur in adolescence;

(iii) discuss the educational implications of the changes in cognitive ability that occur during adolescence.

## 3.0 Main Content

### 3.1 Arnold Gessel IS Theory of Growth

Cognitive development theory by Jean Piaget was preceded by discussions on the inborn characteristics of children as the main providers of children's educational experiences. Generally, it was believed that children's learning abilities were determined before their birth and that the child must be accepted based on this assumption.

The implication of this assumption was less emphasis on environmental effects on the child's mental development. For reasons of de-alienation of other factors affecting the cognitive growth of children, curriculum contents were either enriched or watered down for school children based on their categorization as fast or slow learners, which they were expected to study at their own pace.

The first attempt at countering this assumption was made by Arnold Gessel. He stated that "growth and development occur in varying sequence", meaning that even as it is believed that human beings are composed of inborn or innate qualities, which to some extent, determine their personality. They are nevertheless non static. They grow and develop in unvarying degrees. Growth and development in this manner happens in stages and go through periods of major reorganization, integration and assimilation. It follows therefore that cognitive development can be better understood by understanding the growth process of individuals. This understanding will afford one to know at what age major breakthrough is recorded and their consolidation periods. "By understanding how and when cognitive systems develop", you will be in a position to ascertain the readiness of your pupils and give them exactly what they are ready for.

### 3.1.1 Jean Piaget

Jean Piaget sees personality from cognitive perspective. His opinion was that human being inherits two basic organizational and adaptation tendencies, which are processed and kept in a state of balance (homeostasis) necessary for intellectual processing. He calls this equilibration. More of this will be discussed under theories of Intelligence.

### 3.2 Cognitive Development by Jean Piaget

Till date, cognitive development theory by Jean Piaget (1896 – 1980) appeared to be the most outstanding. He was originally trained as a biologist and philosopher, he developed a deep concern for the biological influences of how people think. He believed that human beings are distinctively different from animals because of their ability in abstract reasoning. His findings in IQ tests conducted in Paris instigated further interest in knowing how organisms adapt to their environment. This, Piaget regarded as Intelligence. He therefore construed that human behaviour is basically a reaction of humans to their environment, i.e. their adaptation to the environment, which is controlled through a mental organization called schema. According to him, this adaptation is driven by a biological drive to attain equilibrium. He came up with stages of the growth of cognition (thinking) in children as follows:

*Stage 1*          The sensory-motor (from birth 2/3 years of age)

*Stage 2*          Preoperational (2 – 7 years of age)

*Stage 3*          Concrete operation (7 – 11 years of age)

*Stage 4*                    Formal operation (12 – adulthood)

## 3.2.1 The sensory-motor (from birth 2/3 years of age)

Piaget believed that cognitive activity at this period is based mainly on the child's immediate experiences through the interaction of the senses and the environment. During the interaction of the first few months the child is able to control his/her environment by making physical movements. When the child kicks the legs, the parent plays with the child. So the child continues to kick its legs in order to make the parent play with it. This is called "circular" reaction. Using in-built influences however, he developed patterns of behaviour, which we know as schema (and plural schemata). Through such schema, the child integrates fresh experiences into what he already knows. This process is known as assimilation and with further contact the child modifies his or her experiences enabling him or her to understand that objects in the environment have independent existence out of the human body. The process of constant modification and adjustment is known as accommodation.

Later at this stage (around 18 months) the child learns that an object does not cease to exist merely because it is out of sight. This is known as object permanence. The child learns to imitate individuals. Towards the end of the period, real language begins to develop, and by imitating others, the child makes rapid progress in language use.

Osarenren (2001) enumerated the six distinct stage boundaries associated with this period. They are as follows:

(a) Modification of Reflexes (0-1 month):

Most of the behaviours exhibited by the child at this level are primarily reflexive and also assimilative e.g. sucking the thumb.


(b) Primary Circular Reactions (1-4months):

During this period, manifestation of acquired behaviour is noticeable in a child. There is better coordination of the earlier activities e.g. thumb to mouth. The child may follow an object presented to him with his eyes but once it is out of sight, he losses interest in the object.


(c) Secondary Circular Reactions (4-8 months):

The child is able to extend his ability at coordination of other objects in his environment. He will be able to identify objects based on some clues e.g. the arrival of mother or father in the evening by the sound of the doorbell or car. These secondary circular reaction smake room for occurrence of viability and provision of the basis for awareness of one's abilities through reality testing.


(d) Coordination of Secondary Circular Reactions (8-12 months):

A child will show a more definite coordination of two schemata i.e. the child had the mental skills to understand new varying skills. At this stage, he is able to search for an object that has disappeared which he could not achieve before this age. This only happens when the child has had a considerable interaction with his environment.

(e) Tertiary Circular Reactions (12-18 months):

During this phase, a child exhibits some degree of inventiveness in his ability at coordination. For instance, if a toy is taken away from him and kept in a place beyond his reach, he will seriously search for it until he is able to locate it.

(f) Beginning of Representational Thought (18-24 months):

This phase marks the eventual completion of the previous phases. He could imitate someone very well even when the person is not around. He is able to store a proper mental picture of behaviour which he will imitate later. Therefore, at the end of this sensory-motor stage, a child has the ability to use symbolic behaviour.

### 3.2.2 Preoperational (2 – 7 years of age)

The sensory environment no longer binds the quality of thinking at this stage. Vocabulary increases rapidly including the ability to understand and use words. It is believed that, an average 2 year old child understands between 200 – 300 words. By the end of 5 years he or she understands about 2,000 words.

Children's language development at this stage develops faster if adults communicate with them a great deal. This can be done through talks, reading stories, singing songs, or nursery rhymes. Learning at this stage is intuitive with the child relying a lot on internal impulses, which are revealed in monologues – child talking to self and performing acts. They pretend a lot and play with imaginary friends and tell wild stories out of imagination. Intuition fires them to experiment with language. Children talk at and not with others. Their speech pattern remains egocentric – directed at themselves.

Later during this stage (four) the child learns to group objects into classes on the bases of size, shape or colour. The children can now make comparison such as "tall" versus "short". Nevertheless, children are unable at this stage to handle abstract concepts. They can only reason on things that physically exist or which are before their eyes. They believe in adults' rules for moral guidance.

The child's thinking is not reversible at this stage. For example, he cannot move from $3 + 5 = 8$ to $8 – 3 = 5$. So he cannot form concepts or understand subtraction or multiplication.

### 3.2.3 Concrete operation (7 – 11 years of age)

The concrete operational stage marks the overcoming of the deficiencies of the earlier period and maturing. Two important abilities become prominent at this stage. First is the concept of conservation. This is the ability of the child to realize that the quantity of an object does not

change even when its shape changes. So the quantity of water remains the same no matter the shape of the container.

The second important manifestation shown by children during this stage is an understanding of the concept of reversibility. According to Piaget, unlike the child in the previous period, they are now able to think logically. So having attained the ability to think backwards from point A to point B, and then back to point B, the child can now do subtraction and multiplication. However, there is difference between this stage and the next, in that the child cannot think in abstract logical terms.

### 3.2.4 Formal operation (12 – adulthood)

During this stage the child begins to think logically not just with reference to concrete problems, but also in the abstract form. The child can think of things that do not really exist. For example, he can understand the concept of God, religion and morality. This period coincides with adolescence years. Children at this period are able to attain logical, rational, abstract reasoning. They appreciate that some problems can be solved (hypothetically) "in the head" by applying the same rules as would be applied for concrete problems. Whereas the younger child deals with the present mainly, the children at this stage are concerned with the future and far away.

The adolescents are capable of solving verbal better than the children in the concrete stage. They are now capable of idealizing and imagining possibilities by extending their speculations about the ideal qualities that they desire in themselves and in others. Their thinking becomes more logical, enabling them to approach problems in a scientific-like manner in order to solve them systematically. This further makes it possible for them to develop their own hypothesis or guesses regarding the ways to solve the problems in question.

The key patterns of reasoning at this stage are:

(1) Combinational Reasoning

(2) Proportional Reasoning

(3) Probabilistic Reasoning

(4) Co relational Reasoning

*Combinational Reasoning:* There is proper consideration of all possible relation of experimental or theoretical condition in a very systematic and orderly manner.

*Proportional Reasoning*: child recognizes and at the same time interprets relationships that exist in any given situation that is described in observable or abstract terms.

*Probabilistic Reasoning*: The child recognizes the fact that natural phenomena are probabilistic. Therefore, before any conclusion or explanatory models are made, the probabilistic dimension as to be considered.

*Co relational Reasoning:* A child is able to decide whether events are related and can go together. They also understand that there might be some differences and the relationships may not always turn out to be so.

**Activity I:**

1. Explain in details any of the following:

(a) physical development

(b) cognitive development

2. Discuss Piaget's theory of development.

**3.3 Vygotsky's Theory**

Vygotsky's theory like that of Piaget is constructivist, it emphasizes that children actively construct knowledge and understanding rather than being passive receptacles. However, Vygotsky's theory is a social constructivist approach which emphasizes the social contexts of learning and that knowledge is mutually built and constructed. This theory proffers that knowledge is situated and collaborative. That is, knowledge is distributed among people and environments, which include objects, artifacts, tools, books and communities in which people live.

There are three claims central to this theory:

(i) The child's cognitive skills can be understood only when they are developmentally analyzed and interpreted. To understand any aspect of the child's cognitive functioning, one must examine its origins and transformation from earlier to later forms.

(ii) Cognitive skills are mediated by words, language and forms of discourse, which serve as psychological tools for facilitating and transforming mental activity. To him, language is the most important of these tools. He argued that in early childhood, language begins to be used as a tool that helps the child plan activities and solve problems.

(iii) Cognitive skills have their origins in social relations and are embedded in a socio-cultural backdrop. This portrays that the child's development is inseparable from social and cultural activities. He believed that the development of memory, attention and reasoning involves learning to use the inventions of the society such as language, mathematical system and memory strategies. Two of the Vygotsky's unique ideas were his concepts of the Zone of Proximal Development (ZPD) and Scaffolding.

**3.3.1 The Zone of Proximal Development (ZPD)**

The zone of Proximal Development is Vygotsky's term for the range of tasks that are too difficult for children to master alone but that can be learned with guidance and assistance from adults or more-skilled children.

The lower limit of the ZPD is the level of problem solving by the child working independently alone. The upper limit is the level of additional responsibility the child can accept with the assistance of an able instructor. Thus, the ZPD involves the child's cognitive skills that are in the process of maturing and their performance level with the assistance of a more skilled person. He called these the "buds" or "flowers" of development to distinguish them from the "fruits" of development, which the child already can accomplish independently.

### 3.3.2 Scaffolding

Scaffolding is a technique of changing the level of support. Over the course of a teaching session, a more skilled person (teacher or a more advanced peer of the child) adjusts the amount of guidance to fit the student's current performance level. Instruction is given when introducing new knowledge but guidance is reduced as the child gains competence.

Vygotsky viewed children as having rich but unsystematic, disorganized and spontaneous concepts whereas the skilled helper has more systematic, logical and rational concepts. As a result of the meeting and dialogue between the child and the skilled helper, the child's concepts become more systematic, logical and rational.

Vygotsky's view of the importance of socio-cultural influences on children's development fits with the current belief that it is important to evaluate the contextual factors in learning.

However, this theory has been criticized for over emphasizing the role of language in thinking.

### 3.4 Comparing Vygotsky's and Piaget's Theories

**Topic Vygotsky Piaget**

| Topic | Vygotsky | Piaget |
|---|---|---|
| Stages | No general stage of development proposed | Strong emphasis on stages-sensorimotor, preoperational |
| Key processes | Zone of proximinal development, language, dialoque, tools of the culture. | Schema, assimilation, accommodation operations, conservation, classification, hypothetical-dedicative reasoning |
| Role of language | Major. Language plays a powerful role in shaping though | Mining. Cognition primary directs language |
| View on education | Education plays a central role, helping children learn the tools of culture | Education merely refines the child's cognitive skills that already have emerged |
| Conceptual shift | Focus on collaborating, social interaction and socio-cultural activity | Attention is on the individual child |

| Knowledge construction | Children construct knowledge through social interaction with others | Knowledge is constructed by transforming, organizing and re-organizing previous knowledge |
| --- | --- | --- |
| Teaching Implications | The teacher is a facilitator and guide, not a director, establish many opportunities for students to learn with the teacher and more-skilled peers | Also views the teacher as a facilitator and guide, not a director, provide support for children to explore their world and discover knowledge. |

### 3.5 Incorporating Vygotsky's Theory in the Classroom

1. Use the student's Zone of Proximal development in teaching.

2. Use scaffolding to help students move to higher level of skill and knowledge.

3. Use more-skilled peers as teachers.

4. Monitor and encourage children's use of private speech.

5. Assess the student's ZPD and not IQ to determine the level at which instruction should begin.

### 3.5.1 Cognitive Development Theory of Jerome Bruner

Bruner, regards the human brain as having three modes of representations, enactive mode, iconic mode, and the symbolic mode.

**Enactive Mode:**

This refers to event being represented in terms of action. Very young children can often understand things best in terms of action. Children, for example, can best understand the concept of balances by referring to their experience on a balance. For example, if the child on one end of the bar is heavier than the child at the other side, it will tilt. That is enactive thinking.

**Iconic Mode:**

Iconic mode of thinking is indicated in images of the world formed in concrete terms. Objects are conceivable without action. An object is known by means of a picture or image. Children now know and understand concept by means of schematic picture in the mind. The world is formed in concrete terms, but these are not related. One aspect of a situation tends to dominate the child's judgement than the rest.

**Symbolic Mode:**

Children are able to develop abstract images at this stage because they can now translate their experiences into language. They can also use language as an instrument of thinking. Three methods of representation are:

The wordless messages of enactive level of communication;

A picture often tells a thousand words: the iconic level; and Language – the symbolic level.

### 3.5.2 Cognitive Changes in Adolescence

1. Increasing Objectivity of Thought - Adolescents like adults can use fantasy as an escape for something depressing, unwilling to face realities of life. Unlike children, however, they are aware of the differences between their fantasy and reality.

2. Changes in Reasoning - There is a growing capacity for reasoning, so that the adolescents are capable of solving complex mathematical and scientific problems. They are also capable of formally testing hypotheses. This is known as prepositional thinking. They can imagine solutions in problem and test the solutions in imagination before putting them into practice.

Adolescents think of the reaction of imaginary audience. Younger adolescents take into account the reactions of their peer groups; they continually try to project an image to their friends. This explains some of their attention-getting maneuvers, such as eccentrics dressing and behaviour, but towards the end of adolescence, this type of thinking becomes introspective. They no longer think about themselves in the egocentric ways. They are capable of empathy. They can look at their situation in terms of other cultures.

Older adolescents are aware of political and social realities; they think about issues objectively and consider such issues independently of their particular needs.

### 3.5.3 Sex Difference in Adolescents' Cognition

In adolescence, young people become very conscious of their sexuality and become cautious of the fact that they are expected to get married. The adolescents become aware of sex differentiation in academics. Boys tend to study technical and science subjects, though more and more girls nowadays study medicine, law, architecture etc. In terms of reasoning and the ability to solve problems, where differences between the sexes exist, they can be traced to differences in upbringing and training.

### 3.5.4 Educational Implications

It is important that we must take into account the relevance of Piaget's and Bruner's theories and attitudinally apply them for effective teaching and learning.

*- Activity and Cognitive Growth*

A major educational implication of cognitive development is that growth in any stage depends on activity. That development of brainpower is not fixed at birth, but is a function of appropriate activity during any particular stage which produces cognitive growth.

It is advisable however for you as a teacher of students at this stage, to realize that not all children actually reach the cognitive development level at the same time as others. This is because the thinking of some 12-15-year-old children is more or less still like that of the children of 7-10 who

are at the concrete operational stage. Therefore, your teaching methods must be varied to incorporate both concrete representations and abstract ideas in your lessons.

Games, such as monopoly could be used in teaching such students to stimulate abstract thinking among them. This can be achieved by asking the right questions relating to the general concept being taught. In a like manner, viewing films and movies and participating in art forms like painting, drama, dance and music, could also greatly stimulate the young adolescents to think in more abstract terms.

*- Curriculum and Cognitive Development*

Curriculum should not take cognitive development for granted but should provide specific educational experiences based on children's developmental levels and ability. This is particularly important at the formal operational stage. Simply because they have reached formal thought processes does not necessarily mean they can automatically think logically. Problem solving should be encouraged based on logical scientific methodology, and where possible, with models that will help to conceptualize the problem.

*- Learning Materials*

Piaget's theory tells us that since children have developed full formal pattern of thinking, they are able to attain logical, rational abstract strategies, symbolic meaning and metaphors. Stories with morals can be generalized, simulations and games can be presented and understood, e.g. in monopoly game.

We should at all times examine curriculum materials. If they are clearly above their ability, we should revise the lessons and use material that they can understand rather than assume that all our students are capable of understanding them. Failure day by day will make them lose interest completely in the subject e.g. in mathematics. We should provide experiences and activities that stimulate thinking.

**Activity II:**

1. Explain cognitive development

2. What are the stages of cognitive growth by Piaget.

3. Mention two educational implications of Piaget's theory of cognitive development.

**3.6 Results of Studies of African Children**

Many studies of children in Nigeria and other African countries using Piaget's theory and tasks have been carried out. The majority of studies were of children in the concrete operations stage. The results of the African studies show:

(i) That children do pass through the first three stages.

(ii) That very many of the children except the children of educated middle class parents are slow in reaching the stages.

(iii) That training can improve the pace of attaining the stages.

(iv) That acquiring particular concepts in the concrete operations stage depends on the background experiences of the children. Those in a hunting environment are faster in spatial concepts, those in farming and pottery making communities are faster in quantitative concepts.

### 3.6.1 Implications

Deductions of Intellectual Development study.

Through the study of intellectual development, the following deductions were learnt:

1. We have learnt that intelligence increases with greater stimulation. This means that the teacher has the responsibility of training, teaching and stimulating the children to higher levels of intellectual functioning.

2. We have learnt that intelligence has many components. Children also study many subjects in primary school. Therefore, we can use these subjects to stimulate intellectual development.

3. We have learnt that our children are somewhat slow in their intellectual development. Therefore, teachers have to try to make all our children who are capable to move at their best pace.

4. We have learnt from Piaget that the children's progress depends on their own activities. Our children should be allowed greater freedom for activities.

5. We now know the various attributes of higher intellectual functioning so we can identify, assess and promote them.

6. We have been told that one stage of cognitive development leads to another, so there can be no skips in certain aspects of knowledge.

7. Piaget emphasizes play in his studies. The implication of this is that we should employ the play method particularly in the nursery and early primary classes. The method will be more meaningful with the use of symbols or concrete objects. It is even advisable to use the informal more than the formal approach for the young primary school children to give them the much needed freedom for effective learning.

8. Children often like to imitate others. The implication of this is that teachers, parents and others should lay good examples worth emulating.

### 3.7 Ways of Stimulating Intellectual Development

1. Facilitating Intellectual Performance

The teacher and parents should make intellectual functioning easy for the children. This can be done by setting up situations that provoke thinking. The way things are arranged either at home or school could make the children point out what should not be included.

Also a good relaxed atmosphere that is free of tension enables children to think. To make the atmosphere even better, the teacher can show interest in the children's ideas and invite the ideas.

If the teacher gives notes all the time, insist that children do things his way i.e. the teacher's way, and then they will believe that he does not value their ideas. He should allow them to ask questions.

It is better we remember that intelligence have dimensions. Examples should not only be academic. Opportunities should be given to children to use their social, mechanical, verbal, and numerical gifts.

## 2. Providing Practice in Grouping and Organizations

There are very many opportunities daily for children to group and organize objects, ideas, events and people. The parents, teacher and the children could bring a collection of objects for grouping - any objects at all. When they are grouped, the children tell the basis for the grouping. The objects could be grouped on the basis of number if it is a mathematics class or on the basis of shape - circular, triangular, etc. Words could be grouped. Those that rhyme could be grouped separately. If the teacher writes the words on separate sheets of paper, the children can sort them out. It depends on what the lesson is about. At the upper primary level, it is still necessary to classify. If the children are learning how to write composition, they can put forward their ideas and then group them. If the topic is 'A Visit to the Market', the children can list as many points as they like. Then the teacher helps to guide the children in grouping which ideas go together. Such ideas can be organized and written into paragraphs.

## 3. Finding and Establishing Relationships

This is an extension of grouping and takes the practice in grouping to a higher level. A game which we often play with children is to make systems in science. We start with very simple ideas. I want to make a system in science. It has the sun and the leaf. The sun shines on the leaf - a primary four child made that system. The idea is that we should look for relationships of all kinds.

Give them practice in arranging objects according to graduated size, number, and colour. Arrange events in time sequence.

Another important relationship is in the form of a hierarchy. Things get built up into larger wholes. For instance, ant, fly, bee can be put into a group as insects. Then insects put into a larger group of animals. So the relationship is from specific to general. A different type of relationship involves part and whole. Our children have difficulty in what Piaget calls 'class inclusion' - being able to see the relationship of part and whole and compare a part and the whole. An example of this is comparing girls and children in your class. The class is made up of girls and boys. The children may compare the number of girls and boys. But there is also another level of comparison which involves the number of girls and the number of children in the whole class. Children find it difficult to separate the girls mentally and also have them in the total group mentally. Try it. They need practice. In upper primary you can ask them a simple quiz of this nature:

All children in this class are bright.

The girls in this class are bright.

Therefore all the boys in this class will be ………..

Let them develop such types of riddles or quizzes. Give practice also in reversible relationships.

## 4. Problem Solving

Children need lots of experience in solving problems. De Bono asked children to write essays or draw how to keep a cat and a dog in the same place. The essays and drawings were very interesting. They showed the same type of solutions that adults normally give. Children can solve problems but they need practice with familiar problems.

You can help in many ways. Let them know that there are many ways of solving problems. Help them to spot problems in the class, the school and the environment. Have you ever tried to open the door when both hands are carrying things? Is that a problem? Let the children find some more everyday problems. How can they stand in class without dragging the desk or the chair?

Then help children in focusing on and trying out possible solutions. In the example about carrying things and opening the door, we could try (a) freeing one hand (b) opening the door with foot (c) asking someone to open the door for us, etc. Which of the possible solutions really works? Let the children decide.

Although we have used an everyday example, you can use your subject areas to locate problems. In Agricultural Science or Health Science there are very many problems that come readily to mind. You think of them.

## 5. Training to Hasten Conservation Ability

Do you know that just setting up situations and allowing children to play with objects can help their ability to conserve? Of course, you can help in definite ways. Remember the assignment you performed on conservation in the last unit. Check it. Try it again and if the child does not conserve, confront him with the fact that you did not add or take away any of the seeds. Let his classmates who conserve also try it and argue along the same lines. Use other objects. (Your course tutor will give you other tasks that you can use to train children to hasten conservation ability in quantity, volume etc).

## 6. Practice in being Flexible

Here, the attitude that things can be done in different ways is important. Try and establish that attitude. Always ask and reward anyone who can use a different method to obtain results.

Demonstrate by using more than one method yourself. You can say the same thing; convey the same meaning in different ways. Problems can be solved by different methods. Counting, addition, subtraction etc. can all be done in different ways.

One of the very useful ways of training children and even adults in flexibility is by asking them to use different modes of expression. For instance, a story could be told in words, by drawing, by molding a model. These different modes of expression can be used by everybody. One does not need to be an artist.

Let us consider an example of keeping the dog and cat in the same place. We can say for example tie the dog and the cat to different trees. We can say the same thing by sketching or drawing it. A

third mode of expressing the same thing is by acting or miming. Try it, your class will be very lively and the children will think. If some children mime, others can guess what they have tried to communicate. In this way you will teach the children to change thoughts into verbal and action modes.

7. Give Children Opportunity to Do Things Independently

Small group projects and individual work help children to plan and put many of the things they have learnt into practice. Also, they learn how to look for information and use their memory.

In order not to forget, children have to be taught to jot things down, to rehearse what they

have to do.

8. Monitoring Own Thinking

The kinds of errors that our children sometimes make are unbelievable. Let me give you an example from our work with teachers in primary school. Children in primary school make addition mistakes of this nature $25 + 14 = 12$.

Why? The teachers usually mark this wrong and stop there. What did the child do? He added $2 + 5 + 1 + 4 = 12$. So the child knew how to add. If the child had been able to estimate that when he adds, the sum will be bigger than 25 and 14, he would not have made this mistake. Estimation is important in monitoring the way we think.

### 3.8 The Way Language Develops

Since our emphasis is on the primary school child's language, we will not discuss language development before age six years in great detail. We wish to emphasize, however that the major task of learning the first language or mother tongue is virtually done at that stage. There are a few phases which we need to consider since all children, regardless of the language they are learning, pass through them.

(i) Pre-language Phase (0 - 1 year): At birth and for about two months later, the only means of oral communication between the baby and those around is crying and grunting. Soon, however, the child begins to make other sounds. He makes only vowel sounds at first 'uu-u-u-u-u-u'. Later, as his physical structures mature, he can produce consonant and vowel sounds which he repeats 'gi-gi-gi'. We say that he is babbling. When the baby is awake, he lies down and seems to enjoy producing these sounds. Children whose parents and caregivers talk to them a lot produce more of these sounds. After some time, the babbling sounds which are usually common to all children everywhere begin to change. They begin to sound more like the sounds that are heard in the language of the area.

During this phase too, the child also learns to use the sounds to communicate. He cries in particular ways to make requests and give information. When he is fed and contented, the sounds produced are different in tone and quality from those made when he is in pain or needs something like food. No one tells a parent the cry or 'speech sounds' of hunger, pain, or of falling asleep. So, we can say that the baby is learning about the function of language.

(ii) First Words Phase (2 - 4 years): The average child's first word is usually spoken in the second year. Later, the child makes two-word and three-word sentences. The child shows by action that he knows what is meant by food, water, goat, daddy etc. This knowledge is gained through conditioning because the child hears the word repeatedly in conjunction with the presence of the object in question. However, the interesting thing about these first sentences is that each one can mean different things. So if the child says 'jeje' or 'dia' (meaning eat in Yoruba and Efik/Ibibio), the child may actually mean 'I have eaten'or 'I want to eat' or 'You have eaten my food' etc. The exact meaning can only be gotten from the context in which it was said. The underlying meaning is complex and far ahead of the means of expression.

Sometimes, the child's speech in this phase is described as telegraphic. This is so because he omits certain words as we do when we are sending telegrams. During this phase, to, the child does not only learn to make longer sentences from one to two, three and four words, he also begins to observe some rules of grammar. He begins to use correct word order. He also learns to use different tenses and to indicate plurals, etc.

The child's speech also sounds improved in quality. His pronunciation becomes more distinct. He begins to use intonation to express himself. For instance, he raises his voice at the end of the sentence to indicate that he is asking a question.

(iii) Early Adult-like Speech: By about 5 or 6 years, the child communicates quite well almost like an adult. However, there are a few problems. He may have some problems in pronouncing certain sounds e.g. 'gb', 'kp' and 'L' sound if these occur in your language. Although he speaks well there are also some areas of grammar where he still makes mistakes. These are particularly noticeable when he brings messages and has to use reported speech. There are others too; so look out for them if you teach in the junior primary classes.

The children understand meaning quite well. But, here too, much depends on the type of experiences they have had. Sometimes, the meaning they attach to words may be too restricted or too vague. For instance, they may use the words 'aja' or 'nkita' or 'ewa' correctly to mean dog (in Yoruba, Ibo, Ibibio) but this refers only to the type of small dog they see in the village. If they see the picture of or a real live police dog, they may not identify and call it a dog. You have to be careful in teaching to ensure that you help children to develop correct concepts or meanings.

These are just a few indications of the kinds of language deficiencies with which children come to school. But, they make such remarkable progress on their own that we cannot but wonder how they can learn language so quickly and so competently.

### 3.8.1 Factors Affecting Language Development

From studies carried out by psychologists, the following factors are generally believed to affect language development.

(i) *Sex:* Girls are in most cases superior to boys in vocabulary, pronunciation as well as the amount of speech produced up to about age 10.

(ii) *Family Size and Structure*: If the family size is too large, parents and elders might not have sufficient time to talk with the children. In such a case, the language development of the children might be retarded.

(iii) *Social Class:* Due to such things as feeding, facilities, and the general environment, children from the lower class are likely to have poorer vocabularies, more difficulties in reading, and poorer articulation than middle class children.

(iv) *Deprivation of Opportunity to Talk with Adults*: It has been emphasized in this course that the early years are very critical for the overall development of the child. A child who is deprived of communicating with adults either due to being hospitalized or put in an orphanage is likely to develop language skills relatively slower than his counterparts that do not experience such handicap.

(v) *Bilingualism*: As you will see later in this unit, bilingualism can affect language development. Children who are brought up in homes where two languages are spoken at the same time stand the risk of getting one language interfering in the other. For instance, if the mother tongue is dominant, ability to speak say English will be adversely affected.

**3.9 National Policy on Education and Language in the Primary School**

In this section, we will discuss what the National Policy on Education says about the use of

language in primary schools.

**3.9.1 The National Policy**

*(i) Which language should be used?*

This document clearly states that in the primary school years every Nigerian child will learn his mother tongue and English. It is possible that if his mother tongue, that is the first language used in his home is not the language spoken in the area, he will also learn the language spoken in the area. So, clearly every Nigerian child is expected to be, at least, bilingual. He should speak more than one language. If he speaks and understands two languages he is bilingual. If he speaks and understands many, he is multilingual. (Bi -refers to two, multi - refers to many).

*(ii) At what level and in which classes should the different languages be taught?*The National Policy on Education states that every child should start his education in primary one every subject should be taught in the child's mother tongue or is introduced as the language of instruction. In some states, the children learn in their mother tongue or their local language until primary three or four and then they make the change to English.

*(iii) Why does the National Policy allow two languages, English and the other tongue to be used?*

The idea is that since English is the official language, every child who has gone to school should be able to use it. When children speak English, they can communicate with more of their country men and women especially those who do not speak the child's mother tongue. As you know, when you speak someone's language a special bond tends to be created between the two of you. Also the mother tongue is taught as a way of preserving and promoting our culture.

**3.10 Issues from the Policy**

Out of these policies, there are four issues which concern us and tend to affect the child's language behaviour.

(*i*) *Attitude to the language*: We normally teach English in upper primary; examinations such as the Primary School Leaving Certificate and Common Entrance Examinations are taken in English. Therefore we tend to behave as if English is better than the mother tongue. When we adopt this attitude, it affects the way we teach the children in the mother tongue.

*(ii) Issue of when to change from mother to English*: Do you know that some children in the staff school of Obafemi Awolowo University, Ife, learnt all their subjects in the primary school in Yoruba? They did just as well as those who learnt in English and even showed better leadership qualities in secondary school.

*(iii) Starting the child in the mother tongue:* Many of us teachers are not very willing to teach the children in the mother tongue. We use both English and the mother tongue! One of the reasons is that the books are not available. So, we write 'Addition' or 'Subtraction' and other English words on the board and start teaching in the mother tongue! The point is that with a little more effort we can really teach well in the mother tongue. We may even be able to develop some of our teaching materials.

*(iv) The issue of bilingualism or multilingualism*: What does it really mean to expect a child to learn and speak two or more than two languages? We will take up this discussion a little later.

**4.0 Conclusion**

The cognitive development theory of Jean Piaget has far reaching implications for the learning children. His four stages of cognitive (intellectual) growth are sensory motor (from birth to 2/3 years), preoperational stage (2 - 7 years), concrete operation from (7 - 11 years), and formal operation (12 - adulthood). The concrete operational stage is divided into two, i.e. preconception (2 - 5 years) and intuitive stage (5 - 7 years).

Jerome Bruner, another psychologist believed that children's cognitive growth passes through three stages. They are the enactive mode, iconic mode and symbolic mode. That the school should take into account the stages of cognitive development and adapt the curricula accordingly to make teaching and learning effective.

**5.0 Summary**

In this unit, we have:

(i) explain the main features in Piaget's and Bruner's theories of cognitive development;

(ii) discussed the changes in cognitive ability that occur in adolescence;

(iii) explain the educational implications of the changes in cognitive ability that occur during adolescence.

**6.0 Tutor-Marked Assignment**

1. What is intelligence? List the different components of intelligence.

2. List the four stages of cognitive development according to Piaget's theory. (Arrange them in order and give their ages).

3. List the different ways the teacher can help in promoting intellectual development.

4. Describe how you will apply any three techniques in your class to improve your children's intellectual functioning.

5. List the different phases of language development.

6. Give any five factors that affect language development.

7. Outline the issue raised by the National Policy on Education with regards to the use of Language in Primary Schools and in Primary School Teaching.

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# UNIT SIX: SOCIAL-EMOTIONAL DEVELOPMENT THEORIES: THEIR IMPORTANCE IN THE SCHOOL YEARS

**Contents**

- Meaning and Causes Of Emotion
- Theories of Emotion
- Wundt's Tri-Dimensional Theory
- Important Emotions of School Children
- Emotional Maturity
- Implications of Emotional Development for The Teacher
- Social Development
- Concepts in Social Development
- Theories of Social Development
- Biological (Temperament) Theories
- Conclusion
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

Our relationship with people, things or situations results to feeling of love, fear, anger or laughter. We call these end-products of our social encounter "emotions".

We shall attempt in this unit to explain the meaning of emotion. We would also try to examine the theories of emotion and the important emotions of primary school years.

## 2.0 Learning Outcomes

At the end of this unit, you should be able to:

- define emotion;
- discuss minimum of two theories of emotions;
- discuss three emotional patterns commonly associated with school pupils;
- list any four steps that the teacher can take to ensure the emotional stability of his pupils.

## 3.0 Main Content

### 3.1 Meaning and Causes of Emotion

We shall separately discuss the above concepts separately as follows.

### 3.1.1 Meaning of Emotion

The word emotion was deduced from the Latin word emovere 'to move out'. Some psychologists have held that emotions are disruptive states of organisms resulting from a loss of cortical dominance. Others assert that emotions are organizing states that make the individual ready for

action in emergency situations. Emotional states can also be seen as activating or energizing process.

Emotion could be seen as the stirred up condition of the organism involving internal and external changes in the body. Emotions is use to describe such feelings as love, anger, joy or laughter, sorrow, fear, hope, curiosity, pity and so on. It is regarded as an outward expression of an individual's inner feeling which are aroused by events in the environment or by the behaviour of others. These feelings or emotions tend to control our behaviour, and they play vital roles in our lives. Apart from making us to be happy or sad, they affect our health, our memories as well as the ways we reason or see situations or other people. In fact, they influence most of our decisions and actions. From what we have said so far, you can see the importance of emotions in our lives. This implies that the way we handle our pupils will affect their emotions which will in turn affect their attitude to the school's programmes.

### 3.1.2 Causes of Emotion

The following factors are responsible for the development of emotions.

1. Adjustment in home, school and society: As soon as the child enters the primary school, his social roles and responsibility change. He no longer relies heavily on the parents. These changes to new pattern of habits create emotional tensions in many pupils.

2. Social expectations: When the child reaches school age, society and parents expect him to think and act like an adolescent, a stage which he has not reached. His failures to meet social expectations result in emotional disturbance.

3. Unfavourable relations at home: Every child needs some basic requirements like pocket money, writing materials, clothes and so on to make him comfortable in school. When a child lacks all these and sees his mates have all their requirements, he is bound to develop

emotional problems.

4. Lack of love by parents and mates: If a child is the result of an unwanted pregnancy, he is likely to miss the necessary parental care and love. You must have heard cases of unfortunate babies picked up in dustbins or gutters who are eventually taken to foster homes. Research findings have shown that children who miss the early mother attachment grow up to develop emotional problems. Similarly, a child born to maladjusted parents or who are inconsistent in their discipline like using harsh corporal punishment or argue hotly with each other is very likely to develop emotional problems by becoming aggressive or violent.

5. Physical defects: Some physical disabilities like blindness, speech defects, and lameness can cause a child to be irritating. This is particularly possible when the society shows little or no sympathy for such unfortunate children.

### 3.2 Theories of Emotion

Development of emotion involves a person's awareness and the expression of an affective experience. This affective experience is always either pleasurable or otherwise. If not pleasurable,

it may be mild or intense. Every individual has emotions and the kinds of emotion we feel play a great role in how we relate with others as well as how we get along with ourselves. When a person experiences unpleasant emotions, most of the time, he becomes an unhappy person. On the other hand, an individual who experiences pleasant emotions often will lead a relatively happy life. Human beings differ in the ways they experience and handle emotions.

Psychologists have different concepts about emotions or emotional development. These views have been articulated by these psychologists as theories. The following are some of these theories:

One of the major studies on development of emotional pattern in infants was carried out by Bridges (1932). Her findings and evaluation are still accepted today. The approximation ages when emotions develop during a child's first two years of life are as follows:

Birth          -          General state of excitement

3 months       -          Distress and Delight

6 months       -          Fear, disgust and anger

12 months      -          Elation and affection

18 months      -          Jealousy, affection for other children and adults

24 months      -          All the emotions mentioned above become permanent in addition to joy.

Emotional development is directly related to cognitive development; therefore, further emotional development is linked with perceptual maturation. At the age of three, the child has completed the sensori motor stage of cognitive development. Therefore, he can experience emotions but unfortunately he does not have the capability of conceptualizing his emotional experience or those of other people. Crying and anger decrease while laughter increases. Instead of such physical expressions of rage as yelling, biting or even hitting and kicking; verbalization of these emotions is expressed. They also tend to make use of aggression in their bid to achieve a desired goal. For boys, there is more reliance on physical combat in expressing emotional displeasure whereas in the case of the girls, they tend to contend with verbal charges. An interesting aspect of this expression of displeasure by both boys and girls is that seconds after the expression of aggressive behaviour, friendship amongst them resumes. This should be a lesson to parents who sometimes support their children when they fight with other children. Such children soon come together again while their parents may not forgive themselves.

It is also natural for a child to like some individuals in the home or community in this case the child wants to associate with the person. On the other hand, if the child does not like somebody, he does not take interest in whatever the person is doing. This has a far reaching effect on the teacher-pupil relationship which will in turn contribute to the child's interest in the teacher and the subject he teaches.

**Activity I:**

1. What is emotion? List 5 causes of it.

2. Discuss the Bridge's theory of emotional pattern in infants.

3.3 Wundt's Tri-Dimensional Theory

Wundt as a psychologist argues that feeling cannot be described solely in terms of their pleasantness and unpleasantness but requires three dimensions for a valid description.

1. Pleasantness – Unpleasantness

2. Tension – Relaxation

3. Excitement – Depression

Each feeling moves first between the poles (pleasantness-unpleasantness, tension-relaxation, excitement-depression) and then within the poles. For example, the feeling associated with laughter would move rapidly along the dimension of pleasantness, while at the same time excitement and tension would be added. The tendency is for the individual to be relaxed though in the process he may feel a little bit depressed.

Wundt's theory gained many supporters but some believe that this theory is not infallible. The opponents do not agree that the dimension of tension-relaxation and excitement-depression are merely elemental mental processes as Wundt would believe. These dimensions are muscular attitudes. It is also argued that tension and relaxation are not true opposites. Relaxation is the zero points of tension not its opposite. Similarly excitement and depression are not true opposites. Calm is more logical for excitement than depression.

### 3.3.1 Carr's Functionalism Theory

Carr sees emotions as organic readjustments that occur automatically in the face of appropriate behavioural situations. Thus the emotion of anger arises when the person is faced with a serious obstacle to freedom of movement. In this instance, the person readjusts by making efforts to overcome such obstacle. The quickened pulse, the withdrawal of blood from the viscera, the more rapid respiration and other bodily changes enable the organism to react more energetically and vigorously. Carr states that various emotions can be readily identified when we observe the situations under which the behaviour occurs. He believes that the reaction in emotional states is highly similar to that found when we are involved in any vigorous exercise or activity. Once the individual begins to react to the situation, the emotional response dies down. In support of this view, we may remind ourselves to the well-known fact that the emotions tend to disappear with action. Our anger soon cools and wanes when we begin to fight, and terror no longer holds us in its grip when we indulge in strenuous flight. The disappearance of the emotions with overt action

is due to a change in the character of the organic reaction.

### 3.3.2 James-Lange Theory

Lange, a Danish physiologist postulated a theory of emotion similar to James theory. They both hold on to the fact that that common-sense, says when we lose our fortune, we are sorry and weep; when we meet a lion, we are frightened and run; when we are insulted by a rival, we are angry and strike. However, others argue that this order of sequence is incorrect. The one mental state is not

immediately induced by the other. The more rational statement is that we feel sorry because we cry; angry because we strike; afraid because we fear. It is not that we cry because we are sorry, strike because we are angry, or tremble because we are fearful. The fact is that without the bodily states following perception, the latter would be purely cognitive activities, pale, colourless and therefore lack emotional warmth.

### 3.4 Important Emotions of School Children

The following are some of the emotions that are found in our children.

1. Fear: Emotional states are very important elements in the life of an organism. Many features of behaviour seem to be directly opposite to fear. Some of our marked aggressiveness and tendencies to show superiority over others often originate from fear and uneasiness. Fear may be regarded as the first line of defence for an organism. On the human level, during the early years, it is manifested in such an exaggerated way that it may appear as a threat to integrity and emotional well-being. It is not enough to see fear as an emotional condition appearing when danger threatens an organism. Fear may be aroused by stimuli that only hint at the possibility of danger. We may differentiate between fear and anxiety by saying that when fear is present, there usually exists a clear idea of what the threat is, while an anxious person is often quite unable to explain to himself and others just what it is that makes him uneasy. Children are often subject to such emotional conditions, which are not easily understood. Studies have shown how causes of fear change with age. Fear of snakes, for example, is hardly present before a child is in its second year. Fear, however, increases in frequency to become practically general after four to five years of age.

Some objects which may cause fear include the following:

• Fear of material objects - snakes, dogs, strange noise, lions, elephants, aeroplanes etc.

• Social relationships - meeting with strange people or strange animals or things, alone in a big or dark room, finding someone in a large crowd. Fears generally decrease with the advancing of age of the child in number and intensity.

2. Anger: Anger is a learned response to environmental stimuli. It is social in nature. The fundamental source of anger is the disruption of coordinated cerebral activity. Fight and aggression are two different modes of reaction to anger. They tend to maintain a balance.

The following may arouse the emotion of anger.

• Teasing by teachers, parents, elders and peers; insulting remarks.

• Being unfairly treated.

• Frustration of one's plan.

3. Love and Affection: The emotion of love is a very important emotion to all human beings. It is the result of consequences of physiological disturbances. The emotion of love and affection develop from the very infancy in the life of the organism. In infancy, love and affection develop for concrete objects of the environment, whether animate or inanimate. In adolescence, emotion

of love and affection is associated with people. Childhood loves are not sexual in nature but in adolescence love becomes a source of pleasure.

4. Happiness: Primary school children are basically happy. One can see this at break time when they are playing, laughing and jumping for joy. A little present, praise or recognition can make children very happy.

5. Sympathy: Many children like to be helpful to others. When children hear stories of suffering, when they see someone in pain or if a school mate is ill, or involved in an accident, children are usually moved to tears.

6. Jealousy: Children experience jealousy. When a new baby is born, the older ones tend to be a little jealous even though they love the baby, brothers and sisters. Jealousy then is their reaction to lack of recognition. This same type of feeling occurs in the primary school.

7. Sadness and Unhappiness: Sometimes when children fail to achieve or are abused, they become unhappy. Lack or loss of parental affection makes children very unhappy. The teacher can easily tell when a child is unhappy and can find ways of lessening this negative emotion.

## 3.5 Emotional Maturity

Ability to govern and control one's emotions increases with age. Hence emotions can be used for various purposes to make life worth living. Emotional maturity, at any stage of growth, reflects the results of development of all parts of a child's personality that can affect each other. The concept of emotional development must therefore be considered in relation to the pupils' age level and perhaps cognitive ability. The following are some of the characteristics of emotional maturity.

1. A change from the stage of being helpless to a greatly increased capacity for self help.

2. A shift from absolute dependence on others to increasingly balanced independence. This enables the individual to be able to stay on his own both psychologically and physically.

3. When the individual does not only appreciate present situation but is now capable of relating the present to the past and future; that is, he is not erratic but tries to think about the consequences of his actions.

4. Increasing intellectual capacity, including increased capacity for dealing with aspects of life in various situations. Increased ability to plan, increased ability to pay attention as well as increased ability not to be easily frustrated.

5. Development of capacity to identify oneself with a larger social group, and the ability to participate emotionally within the larger group.

## 3.6 Implications of Emotional Development for the Teacher

We have seen that the experiences at home are transferred to the school and these tend to affect the emotional development of children. Due to the various demands on the child either by the parents, teachers or mates, the school becomes a potentially emotion generating centre. It is, therefore, the duty of the teacher to make his pupils emotionally disposed to learning.

To promote effective learning, a certain amount of tension and emotional involvement is necessary but this must be moderate since an excess will do more harm than good. In other words, we are saying that with proper handling, emotion can make learning to take place if the teacher follows these principles.

1. Children should be highly motivated. This can be done by giving them new tasks to perform but they must be related to the pupil's level of maturity.

2. The children must be emotionally involved in the classroom activities by making them to appreciate the need for learning new tasks.

3. The use of appropriate incentives like verbal praises - 'Fine' 'Good' and sometimes rewards like sweets are capable of arousing the pupil's self-esteem and prestige.

4. Any new learning task must be related to the cultural background back ground of the pupils.

5. The teacher's treatment of a particular child might spread to other members of the class. For instance, if a teacher scolds or gives corporal punishment to a child, others might be afraid not to say something out of fear that they might equally be punished. This will definitely affect the other children's desire to learn.

### 3.7 Social Development

Children become more aware of whom who they are as they change physically and develop their cognitive skills. They become socialized through their family members and significant others as they get to know the societal values, norms and morals. The process of socialization according to Osarenren (2001), begins early in life and it is a lifelong process. There are two broad theoretical bases to socialization. The first one supports psychoanalytic and social learning theories. The ideas that the end product of adulthood is a direct function of parental child rearing practices and the environment as envisioned by the child and as they affect him.

The perceptions by Rogas (1951), Maslow (1954) and Gesell (1954) showed that the forces of growth and development within an individual are essentially creative but with some variations. They asserted that given moderately constructive circumstances, an individual is self-directing and that self-direction is intrinsically constructive. The main condition in a child's environment is acceptance and if this is met everything will work out well.

Bonding occurs in children and their mother and later extends to other members of the family. This is strengthening when the child's basic needs like food etc. are met. If babies are not securely attached and they lack social bond, it affects the child's social behaviour. The parents play a fundamental role in the socialization and discipline of their children. Friends are also seen as momentary physical playmates. They make friends with other children of their age in their neighbourhood, which are called peers. The influence of peers on child development is very crucial and has far reaching effect on the personality of the child.

Apart from parents and peers, children also get socialized into societal norms and values by teachers. When the child gets to school, he does not attach importance to the sex of his play mates

but from age 8-10 sex becomes an important issue and boys choose to play with boys while girls will play with themselves.

### 3.8 Concepts in Social Development

The key concepts which we have selected for our study of social development are:

• Socialization;

• Roles

• Sex identity;

• Social cooperation; and

• Competition.

Let us now consider them.

1. Socialization

When a baby is born, the baby does not know what is expected of him. In time, however, he becomes aware of these expectations and becomes a full member of his society. The process of this biological infant being made to adopt the way of life of his people is socialization.

Socialization is a process which lasts for the greater part of one's life because even as adults we can still learn about our traditions and customs. Many different agencies help in the socialization of children. Some of these are the family, the school, the peer group and age grades, traditional rulers and other keepers of our customs, the media and religious institutions. Socialization makes us alike as citizens of one country but also different as members from different ethnic groups and families. But as we had seen, if the school does its work well, we should be socialized to have a Nigerian outlook on life even if we are Ibibio, Egbas, Fulanis, Edos and so on.

When socialization is weak, individuals do not feel committed to the group. When children feel that their basic need of belonging (to the family or country etc.) is threatened, we have problems. Children fail to be adequately socialized when different agencies of socialization make conflicting demands on and expect different things from the child.

2. Roles

Every one of us plays many parts as is demanded by the situation. As a teacher in charge of classes, we attend staff meetings, we teach and so on. As parents, we take care of children and the home. As sons and daughters, we respect and look after our parents especially if they are old. As members of associations, we pay dues, attend meetings, contribute ideas, etc. These are different roles. Roles are patterns of behaviour which we learn to perform because of our status or the fact that we belong to specific groups. Within the family we have to play the roles of a child, possibly a father or mother, husband or wife, aunt or uncle, brother or sister, etc. As you well know, the demands for each are different.

3. Sex identity

We learn sex differences in social interaction. We want to emphasize these differences in our country, there is:

(a) so much prejudice surrounding being male or female;

(b) currently much talk and activity on educating women for development;

(c) imbalance in school enrolment on the basis of sex. In some areas, males do not want to go to school, they want to make money. In others, girls are not allowed to go to school.

Sex role refers to behaviour which we perform in accordance with being a male or female. When children learn that they are males or females and learn the behaviour which is expected to their sex we say that they have acquired sex identity.

Children learn as early as the pre-school stage that boys and girls are different. They learn what behaviours are appropriate for their sex within the family. 'Don't cry, boys don't cry', people often say to a little boy. 'Sit properly, you are a girl', they say to a little girl. In some homes in this country, girls are expected to perform the house work while their brothers only play football and other games and study.

Gradually, certain stereotypes (simple and biased expectations) of how boys and girls should behave become learnt. For instance, girls are expected to be obedient and boys rebellious. Boys are expected to be more brilliant than girls especially in mathematics. But many changes are occurring and teachers should observe their effect carefully so that children do not get confused.

4. Social cooperation and competition

In human relationships people sometimes work together. They do things with others. They share and use the strong points of others to achieve results. We refer to such behaviours of working together as cooperation. Cooperation strengthens social relationships. Cooperation does not mean that one must always do what others do. Rather, it enables the person to satisfy his own needs and the needs of others in the group.

Competition is striving to win in a situation. There is healthy competition when no one gets destroyed or hurt. This is the type of competition that makes people want to do their best. A child could compete with himself, to improve on his past performance. One group of children can compete with another as in the case where there is a debate. Once the competition is healthy the teacher should encourage it. Sometimes too a child competes with authority. The child tries to outsmart the school authorities. This may lead to breaking of rules. Teachers should encourage but regulate cooperation and competition among children.

**3.9 Theories of Social Development**

Various Psychologists have tried to explain the beginnings of social interaction and how they change with time. We will discuss two of these groups of theories, namely: social learning theory and biologically based theories. We have selected these two sets of theories because they are relevant to your work and they can be very simply and briefly explained.

**3.9.1 Social Learning Theories**

Basically, these theories state that we relate to people because we have been 'reinforced' or 'rewarded' to do so. In other words, we find out that those we relate to and the way we relate to them are rewarding. Bandura, who strongly proposes this theory, bases his theory on three principles of learning:

1. Children learn new behaviours mainly by observing and imitating others do, i.e., by modelling.

2. Behaviour is strengthened by reinforcement. So a child who relates to the father in a particular way and is rewarded either by a gift, a comment such as 'thank you' or 'well done', or freedom from punishment is likely to continue behaving in the same way.

3. When behaviour is reinforced on an irregular basis, it tends to persist. The point is that for several reasons we fail to reward good or punish bad behaviour all the time. Often, when children help us to carry the books, we forget to say 'thank you'. But, the day they forget to offer to carry our books, we make a big fuss. So, briefly, social learning theories tell us that children relate to others by observing and imitating what people normally do. When the behaviour pleases adults and the adults reward them, they learn to repeat such behaviours in many situations. In that way, for example, they learn to respect elders because the parents and elders are pleased. But, because we do not always take the trouble to correct, reward or punish, some of the newly acquired way of relating to others may be ineffective.

We learn from the social learning theories that:

(a) we should reinforce behaviour which we want to strengthen;

(b) children learn from us and others since they look on us as models;

(c) we should be alert in encouraging those behaviour s which we want repeated.

We can definitely model and promote certain desirable aspects of social interaction.

**Activity II:**

1. What is social development?

2. What are the factors that influence the social development of a child?

**3.10 Biological (Temperament) Theories**

Position of some psychologists is that children are born with certain types of temperaments. These temperaments affect the way they relate to people and the way people react to them. Thomas and Chess, for instance, say that children are born with easy, difficult and slow - to -warm up temperatures. The child with easy temperament approaches new experiences positively. He adjusts easily to change. So, parents are happy that he is not bothered and relationship with him is easy. The filter of this easy relationship is used for further interactions with people. Similarly, the difficult child who cries more and is irritated by changes tends to start with parent - child relationship that is not too easy. So his experience of this initial problematic relationship colours how he relates to people later in life. The slow-to-warm up child is in between. Although Thomas and Chess started by studying infants, they have followed the children for several years. They have

discovered that those babies who started life with easy relationships tend to have easier and more successful social relationships with people in tier primary school years.

Later social relationships, therefore, are built on previous experience regarding how other people reacted to them. Adjustment to school is also affected. Children born with difficult temperaments are likely to be the ones who have problems in school. The basic points of note for those who help to guide children's social development are:

(1) That we ought to organize our help around the children's temperament. We should be more patient with those who appear to be difficult.

(2) That the children are not just helpless people dependent on us to lead them. They bring to the social situation their own individual differences.

**Activity III:**

1. Explain the role of emotion in child development.

2. What are the effects of emotion on learning.

**4.0 Conclusion**

The growth and development of a child from infant to adulthood has been discussed. It is very obvious that the importance of each stage of development to those that handles the training children in all ramifications cannot be overemphasized. The areas of development include the physical, cognitive, social and emotional. The theories of development have a great role to play in the teaching and learning process of children.

**5.0 Summary**

In this unit, we have:

(i) shown clearly definition of emotion in your own words;

(ii) discussed theories of emotions;

(iii) explained few emotional patterns commonly associated with school pupils;

(iv) list out some steps that can be taken to ensure the emotional stability of school pupils.

**6.0 Tutor-Marked Assignment**

1. What do you understand by social development?

2. Give three reasons why social development is important.

3. Briefly discuss the child's relationship with peers.

4. Outline the social learning theory. State why it is important for the work of the teacher.

5. Briefly describe the meaning of emotion. List any four causes of emotion.

6. Describe the following emotions that are associated with the school children: (i) Worry; (ii) Love; and (iii) Anger.

7. Describe four characteristics of emotional maturity.

8. Briefly explain four things a teacher can do to make his pupils to be emotionally stable.

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# UNIT SEVEN: ADOLESCENCE PSYCHOLOGY 1: MEANING AND DEVELOPMENTAL TASKS OF ADOLESCENCE

**Contents**

- How to Study this Unit
- Meaning of Adolescence
- General Hints
- Needs of Adolescents
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## 1.0 Introduction

In this unit, you will be studying the meaning of the term adolescence from the point of view of the authorities in the field. Later on, you will be required to define the concept in your own words. Similarly, you would study the physical and emotional challenges that occur among adolescents in this period and the implications of these to both the community and the school. The unit will enable you fashion out best ways the various stakeholders in education, including you as a classroom teacher, would assist the adolescents in tackling their peculiar problems and at the same time realizing their aspirations.

## 2.0 Learning Outcomes

At the end of this unit, you should be able to:

1. define adolescence in your own words;

2. describe the general nature of adolescence;

3. enumerate and explain the traditional practices cherished by some communities in addressing the peculiarities of adolescents;

4. point out the implications of the general nature of adolescents to the classroom teacher;

5. fashion out the best practices the various organs of the society would come into address the problems of adolescents.

How to study this Unit

(a) Carefully read the introduction and summary sections of this unit.

(b) Then read through the entire unit, section by section.

(c) Note the unfamiliar words and look them up in the dictionary.

(d) Attempt all the activities given and the assignment as well.

**3.0 Main Content**

**3.1 Meaning of Adolescence**

Definitions of adolescence have been variously defined by experts in Educational Psychology. Some of these definitions include that of Blair, et. al. (1975). They categorized it as "that period in every person's life that lies between the end of childhood and the beginning of adulthood". They construed adolescents to the making of both biological and social process. Ozigi, et. al. (1978), on the other hand, defines adolescence as "a physical, emotional and mental process, which manifests in late childhood to the beginning of adulthood". According to them the growth and development of adolescents is influenced by a number of factors among which are nutrition and environment. Richard Lansdown and Marjorie Walker (1996), on their part distinguished between adolescence and puberty. The two concepts, they argued, are erroneously used synonymously. They maintained that puberty comprises a "series of physical and physiological changes which convert children into adults, capable of reproduction". Adolescence, on the other hand, they defined as the process of growing up both physically and psychologically which starts with puberty and ends up with adulthood. it is the period when the maturing of the sexual organs (puberty) begins and continues to adulthood; (12 or 13 years of age until 18 years).

Considering the above definitions and that of others such as sociologists, it may be safe to conclude that adolescence is a period in human development which is both biological and social and which is influenced by factors as varied as environment, culture and social set-up of the community.

**3.1.1 Initiation Ceremonies Marking the Onset of Adolescence**

Adolescence by some societies is mark with initiation ceremonies of some sort. At times, some of these ceremonies are for boys alone and some for girls. For example, "the fattening room", initiation ceremony of Efik in Cross River State of Nigeria, is for girls. In these "fattening rooms", girls are secluded and taught about family life – how to look after their homes and families. In the societies who mark initiation ceremony the beginning of the adolescence period is extremely significant, because once the ceremonies have been completed, there is a rapid life switch from childhood to adulthood.

In the case of traditional Hausa societies, the young adolescents; boys and girls are introduced into the family life through marriages. This does not however indicate that they are left on their own. The parents continue to fend for them and provide for their necessities. The male is taken through some rigorous training through which he acquires some trade skills, mostly farming, that he will depend on after weaning from the bondage of the super ordinate family two or three years later. The female will also continue to be taken care of, only offering assistance of some sort in the household activities. This continues until she puts to bed at least twice before she will be considered fit to handle the affairs of her family with minimum assistance.

These traditions are corroborated by Margaret Mead (1962). She recorded several initiation rites, claimed that the ceremonies served as a time when the young persons are educated in the kind of behaviour or attitudes expected of adult members of the communities. It is a method of socializing

boys and girls who are taught rules, values and role differentiation etc. For instance, in most cases, the older women give instructions to girls on appropriate sexual behaviour, marriage, childbirth, and food production activities. Some of the initiates Mead interviewed after the ceremonies, confessed they gained self-respect from other members of the society, both older and younger. Some of the boys, for instance, claimed that they stopped cursing, fighting and playing childish games after the event.

With the advent of education, and economic difficulties in the country, the traditions are rapidly dying down. Parents now attach much importance to their children's education. They prefer their children to get educated, which is known to be a stepping stone towards economic independence before marriage. The control of the adolescents' excesses provided for by these kinds of initiation ceremonies and training is now left to the school to handle. The school can only instill family management and childcare practices by emphasizing on such courses as Home Management, Counselling and training for skills acquisition, in addition to the normal academic activities of the school.

The onus is now on school heads and teachers to encourage and ensure participation of the adolescent students, boys and girls in these activities. Ministries of Education and Human Resource Development in the country must be seen to provide all the basic infrastructure, personnel and funds required for the implementation of this strategy. This is needless to say that the youth are still left in a dilemma looking for ways to satisfy their sexual urge. If left unattended, the adult behaviour that is expected to be imbibed by the adolescents would be shattered. Parents, religious institutions and the school need to allow counselling of the adolescents; boys and girls. Every available data that will enhance the significance of sex abstinence must be brought to bear in the counselling sessions so that an involuntary desire of self control is instilled in the minds of the young adolescents.

**Activity I:**

1. Reflect on the time when you were an adolescent, make a list of the things that you would have liked explanations about at that time. Ask whether the present adolescents are passing through this phase of lack of information. Make notes on their responses and explain how you would take care of this lack of information.

2. Write about any initiation ceremony in your community or anywhere in Nigeria, for example, the "fattening room" initiation ceremony in Cross River State etc. Include what the ceremony is supposed to teach the initiates. Discuss your findings with adolescents in your area.

OR

3. Give your class an assignment to write about any initiation ceremony they know, (they can ask questions and write down what they are told). Collect and staple the corrected papers for class reading.

**3.2 General Hints**

In reality, adolescence period is transcendental. Its spanning period is longer for some and shorter for others depending on culture and nutrition. The period is marked by some violent changes in the physiques, psychics and personality of the adolescents, boys and girls, and brings along with it a lot of upheavals and demands that must be satisfied for smooth transition to adulthood life. Most psychologists see the period as the time of conflict, stress, defiance and emotionality. A lot more psychologists regard it as a cascade of passions and the reawakening of instinctual drives that must be met failing which conflict and other emotionality tendencies would pervade the entire conscience and actions of the adolescents.

The adolescent has the physical capabilities of the adult but is treated like a child since he/she has to depend on parents and other adults for economic support. At a time the adolescent cannot get license to drive, nor vote in elections. In other circumstances, that same person is told not to behave like a child but "be a man".

Such confusion of roles may result in general unhappiness, leading to drug addiction, suicide and other socially maladjusted behaviours. Understanding the situation of the adolescents by teachers, parents and other adults, can help the adolescents successfully overcome their frustrations.

Myriads of other issues pertaining to adolescents that are consequential upon the school shirking in its responsibilities include depression, frustration and the collapse of the societal social systems.

The challenges posed by the period to the school are very great. It has the stake of making things normal for adolescents. The shackles bedeviling their entire lives must be overcome by the school.

From the information provided above, one will realize the need to expand the meaning of the concept to include the delicacies of the period and the resultant effect on the personality and development of the adolescents and the society. Thus, it will be safe to opine that adolescence is a spanning period of transition between the ages of 12 to 21 years from childhood to adulthood characterized by myriads of complexities resulting from the physical changes that could lead to maladjustment among adolescent if not properly handled by the school and the society at large.

### 3.2.1 Developmental Tasks of Adolescents

Before eventually transiting into adult roles with minimum bearable problems, the adolescents must go through some developmental tasks. Robert Harvighurst (1952) did a comprehensive study on specific development tasks, which should be accomplished from infancy to old age. The infant, for instance, must learn to walk, to talk and eliminate waste products from the body. At middle childhood, the child must learn the skills of playing games, reading and writing. He set out the vital tasks that the adolescents must deal with before successfully transiting from adolescence to adulthood. These eight development tasks are presented below:

1. Achieving new and more mature relations with age mates of both sexes

They must be allowed to mix freely in the classroom to be able to develop understanding between both sexes. Young adolescents, male and female, in secondary and higher secondary institutions lean to one another in their attempt to satisfy this need. If unchecked, this tendency will escalate to unimaginable proportions leading to sexual abuse and promiscuities, which as it is presently,

poses great threats to the life of the entire society. No wonder, Institutions of higher learning are struggling to introduce dress codes in their various institutions in their effort to control the preliminaries attracting sexes to one another.

Beyond this, governments, both federal and states, have segregated some institutions where male and female exclusively study in order to avoid physical contact between the sexes. In co-education institutions, male and female students mingle only during lecture during the day time and retire to their separate dormitories after studies in the evening. In addition, eagle eye is kept on both sexes to control pre-marital relationship among young adolescents.

The school will need to do more than this. Students need to be sensitized to voluntarily develop an intrinsic desire to behave in a manner expected of a full grown adult. They should be assisted through counselling to face the most challenging threats in their lives rather than the desire to actualize this instinctual desire.

2. Achieving masculine and feminine roles

They must know how to dress and behave like male and female and adults and be able to perform masculine and feminine roles respectively. The school should thus encourage participation in related educational fields that emphasize these roles differentiations e.g. Agriculture, Home Management, Health Science, Sports etc.

3. Accepting one's physique and using the body effectively

They must come to accept their physical features otherwise they cannot have a smooth transition to adulthood. Adolescents should be made to understand that their physical stature does not matter but how one uses it effectively to excel.

Teachers should help them develop positive self image among themselves. They should try as much as possible to bring out in them their inherent potentialities by providing a lot of learning experiences to them. They should develop their creative capacities and mental faculties and encourage them to optimize their usage. They should discuss with them their worries and remove all the barriers that would impede on their success in life.

4. Achieving emotional independence from parents and other adults

They need to achieve emotional independence from parents and other adults in order to have a sense of self-worth and maturity. Teachers should give self-directed assignments and tasks to the adolescents. Give them the opportunity to take part in running the school or community affairs. The adolescent should be challenged to lead certain affairs of the school, society and the family. Formations of clubs and associations with the young adolescents as leaders would significantly help. They need to be supervised however by the adult members of the society.

5. Prepare for marriage and family life

The most important institution for preparing the young adolescents for family is the family. Family heads must ensure stability within the family with absolute peace and tranquility. They must set the standards they would expect the young adolescents to copy if eventually they establish theirs.

They must see to it that every member within the family enjoys comfortable living, where ideas are shared for the collective welfare of all members. Every member of the family must perform their duties credibly and bad behaviours met with stiff sanctions. There must be love and compassion within the family members. Having a stable home is essential in preparing adolescents, who are transiting to adulthood, for setting up a family. Teachers should build on this edifice set by the family members by providing training and arranging family life counselling for both sexes. Guidance on Home Management and Childcare to girls, if not to both, can be very rewarding.

6. Prepare for economic life

The adolescents need to find and adopt an economic activity on which he/she will depend for sustenance and maintaining the family. Should he/she fail to secure one, there is the fear that they can go to every extent to satisfy this need lawfully or otherwise. The family and the school must act swiftly to encourage satisfaction of this need lawfully through effective counselling programme. Teachers should give guidance and counselling on selection of jobs and career. Collect sufficient information on different vocations and skills development programmes.

7. Acquiring set of values and an ethical system as to guide behaviour for developing an ideology

Here, the adolescent needs to have a set of beliefs and values, which will guide his/her behaviour in life. This is sometimes referred to as acquiring an "ego-identity". This understanding will afford him to realize the reason why he/she is in this world and his/her mission in life. Without this, one will be aimless in life. Teachers should act as role models and encourage development of set values, which guide behaviours. Religious leaders and community members are not left out in this crucial task. All must insist from the youth the right type of values expected of the young adults.

8. Desiring and achieving socially responsible behaviour

To transit into adulthood, the adolescent needs to make the effort to behave in responsible ways and take on responsibility as required by the society. In turn, the society accepts him/ her as someone to rely on and who is responsible. The big challenge is not on the school alone. The society at large is not left out of this. Every segment of the society must contribute to the successful transition of adolescents to adulthood by providing training and guidance to its young members.

The school, being the most important agent can only build on the successes of the right type of social behaviours instilled into the minds of the young adolescents by the members of the society. Contradictions must be avoided where realities do not match gospels of responsible behaviours.

Most of these developmental tasks are handled within a space of about ten years or less. No wonder that some of the adolescents' experience intense conflicts. Every member of the society has a stake in seeing to it that adolescents' developmental tasks are sufficiently guided to enable them achieve self-worth during this trying period. For example, in as much as the adolescents would like to achieve more mature relations with mates of both sexes, the society in general should not be quiet and blind to tendencies that would destroy the ethics of mutual relationships between sexes. This should be controlled within the norms accepted by the members of the society. The religious

institutions that are supposed to be the custodians and guardians of greatmoral standards must make positive effort to guide the young adolescents on the correct pattern of behaviours required of the young adults.

The school, on the other hand, working cooperatively with the organs of the society, must strive to inculcate the right type of training through proper articulation of the right learning experiences into the school programmes through which the problems of adolescents would be addressed. The minds of the adolescents should be more occupied with curricula and extra curricula activities than less important egocentric desires of the young teenagers. If lacking in these tasks can cause problems for the adolescents, schools should include them into curriculum. The school should not only concentrate on intellectual development, or in providing support in helping the adolescents to make a successful transition to adulthood.

### 3.3 Needs of Adolescents

The needs of adolescents are:

### 3.3.1 The Physical Needs

The physical needs include food, water, health, security, exercise, rest, sex, temperature regulation and evacuation of waste from the body, etc. These physical needs are very important. Without satisfying these needs, one cannot think of other needs. Our hunger has to be satisfied before thinking of learning or other achievements.

This is a commitment of the home to the entire family members. Every young adolescent must be guaranteed these basic necessities of life. Most maladjustment cases are partly because these needs are not satisfied. The school should address this by organizing local seminars during PTAs to sensitize parents on the need to provide for all these and the repercussions for failing to do so. Where boarding facilities are provided by the school, care must be taken to guarantee these basic necessities of life by the school, failing which crisis looms in the schools. Already, a lot of crises have taken place because of the failure of school managements to address this important need of the adolescents.

### 3.3.2 Personality Need of the Adolescents

After the physical needs, the personality needs come next. These are the needs for status, independence, achievement, and a satisfying philosophy in life. Status is very important, especially among their peers. They do not want to be recognized as children any more. The secondary teachers who want to catch the attention of students should realize this need by treating the students as young men and women and not children. In turn, they should also be encouraged to behave as responsible young adults.

### 3.3.3 Need for Independence

Teenagers want to be free from parental restrictions. They would want their space at home, they would want to keep their own things, plan their activities and to a good extent, take their own decisions.

Generally speaking, adolescents would like to run their lives. They would resent parents coming to school to inquire about their progress. These adolescents will think the inquiry means they are not able to take care of their own affairs. They will not want to be "overprotected". Adolescents that are treated as young adults tend to display some adult responsible behaviour.

### 3.3.4 Need for Achievement

Everybody at times does something worth commending. That particular act should be recognized. Slow learners and those not interested in school, should be praised when they do something good. Reward instead of punishment is a great motivating device in producing learning and disciplined behaviour.

Remedial assistance should be provided by the school to both the slow and fast learners. Individual attention by the teachers should be given to each and every student to enable them realize their worth and work towards achieving greater heights. Every effort must be made by the school to eliminate redundancy among students as this would be a barrier against achievement.

### 3.3.5 Need for a Satisfying Philosophy of Life

It is during the adolescence period that children develop interest in the meaning of life. They are interested in the truth, ideals and religion. The adolescents will not want gaps about the purposes of life. A satisfying philosophy or set of beliefs tends to provide ease of mind and psychological security. Religious conversions and radical political activities at this time are very common. Knowing this, teachers should be able to guide the adolescents to make rational decisions affecting their lives.

### Activity II:

1. Define adolescence and explain the importance of the study of adolescence to the teacher.

2. Mention four (4) adolescents' needs and outline their implications for schooling.

3. Mention four (4) developmental tasks of adolescents and explain the role of the teacher in guiding students on how to cope with the tasks.


### 4.0 Conclusion

Adolescence period as a transition time is between childhood and adulthood. Several psychologists have given various definitions. All indicated that the period begins with puberty and ends when the adolescent has attained economic independence and is recognized as an adult.

Some societies mark this period with initiation ceremonies. Development tasks and needs of the adolescents must be supported by the school curriculum to reduce confusion and conflicts that the adolescents go through. This will also guide adolescents' successful transition into adulthood.

Adolescence developmental stages pose serious challenges to the various segment of the society(home, school, religious institutions and the entire community), that must be cooperatively faced otherwise life would be most unpleasant. The school, especially, will have to address adolescents' problems from various angles like career counselling, community counselling, diversifying teaching strategies and developing personal relation with their students, etc.

**5.0 Summary**

In this unit, we have:

• Explained and defined adolescence;

• explained the general nature of adolescence;

• discussed the traditional practices cherished by some communities in addressing the peculiarities of adolescents;

• showed the implications of the general nature of adolescents to the classroom teacher;

• pointed out the best practices the various organs of the society would come into address the problems of adolescents.

**6.0 Tutor-Marked Assignment**

1. List the developmental tasks according to Robert S. Havighurst and describe any 3 of them.

2. What do you understand by the needs of adolescents? Explain any 3 of them.

**7.0 References/Further Readings**

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# UNIT EIGHT: ADOLESCIENCE PSYCHOLOGY II: PHYSICAL CHARACTERISTICS OF ADOLESCENTS

## Contents

- The Physical Characteristics Physical Changes in Adolescence and their Effects
- Adolescence: Intellectual Characteristics
- Educational Implications
- Conclusion
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

As it can be observed from the above course contents, the adolescence period is a time when major qualitative changes occur in a short period (between 11years and 18 years). These changes create intense psychological problems which, when solved successfully, the individual enters adulthood. This period is usually referred to as a period of storm and stress, harder to cope with and also to accomplish the developmental tasks, which you saw in the last unit. Adolescents need help and support. That is why our role as counsellors, teachers and parents is very important at this stage.

This unit will present the physical changes that occur during adolescence and their implications for counselling and education.

## 2.0 Learning Outcomes

At the end of this unit, you should be able to:

- differentiate between the terms "puberty" and "adolescence";
- discuss the physical changes that occur in boys and girls during the adolescence;
- discuss and explain the meaning of "early" and "late" developers;
- discuss and explain the effects of early and late development on the behaviour of adolescents;
- explain the ways counsellors and the teachers can assist adolescents in coping with the changes occurring in the adolescence period.

## 3.0 Main Content

## 3.1 The Physical Characteristics

The physical development of adolescents starts with the onset of puberty when the girl starts menstruating and the boy, the production of reproductive sperm.

## 3.1.1 Adolescence and Puberty

Although the terms "adolescence" and "puberty" are used interchangeably, they are really not the same thing.

### 3.1.2 Adolescence

Adolescence "is the process of growing up, both physically and psychologically and it ends in adulthood". Landsdown e. al. (1991) and Chambers Encyclopedia describe adolescence as a period of life between childhood and adulthood during which, rapid development occurs in the reproductive organs and secondary sex characteristics e.g. development of deep voice and beard in boys and hair in the private parts of boys and girls.

### 3.1.3 Puberty

Puberty on the other hand refers to the onset f adolescence, which generally occurs around the age of 11 – 12 years for girls and at around 13 – 14 years for boys. Puberty comprises a series of physical and physiological changes, which convert children into adults, capable of reproduction. These include growth spurts' alteration in body in body proportions and development of sex organs.

The onset of puberty is not an abrupt event. During the years leading to puberty, there is a gradual increase in the release of hormones (chemicals) from pituitary gland at the base of the brain in sufficient concentration, making the sex organs to develop. This is what is referred to as onset of puberty.

These developments may vary depending on heredity and the environment in which the adolescents live, especially what they eat, medical care, hygiene etc.

### 3.1.4 Growth Spurt

This is a sudden and rapid shooting up in height. There is variation in age as well as in the order

of events in puberty.

Girls generally start growth spurt earlier than boys. For a brief period, girls may be taller than boys of the same age. Girls may start their growth spurt at about 11 years but grow fastest between 12 and 13 years and may slow down by the age of 14.

Boys' growth spurt at this time is slower by 2 to 3 years. They usually grow faster at about 13 years and fastest at 14 years and slow down by age 16. During the growth spurts a child may put on about 10 cm or 4 inches in a year. There are, of course, exceptions to this rule.

### 3.1.5 Growth of Bones

There is a rapid growth of bones at the early and middle years of puberty, which later slows down. At this stage, muscles grow up and stretch covering the growing bones. In the early stage of puberty, the legs and arms grow un-proportionately, almost twice as fast as those of the trunk. That is why the adolescents look leggy. The bones in the head continue to grow during adolescence, the overall shape of the face changes altering its width; particularly boys. Their lower jaws become bigger.

### 3.1.6 Puberty in Girls

In female adolescents, puberty begins with the enlargement of breasts, maturation of ovaries, fallopian tubes, uterus and vagina. Generally, there is an increase in weight, since the height increases. Hips broaden and thin layer of fat develops under the skin. That is what gives girls a feminine shape. However, with the enlargement of the breasts, sometimes-uneven development occurs, which later corrects itself. Menstruation starts between the ages of 12 and 14 years but sometimes earlier. This may be due to nutrition, as food is essential for growth. Malnutrition affects growth causing low weight and may affect bodily function like the start of menstruation. Adolescents therefore, need a good balanced diet for normal growth and development.

The first menstruation tends to be irregular, sometimes accompanied by headaches, irritability and cramps. Once ovulation has begun, sexual intercourse can lead to pregnancy. Girls need to be told and be prepared for this; otherwise, they may find menstruation very upsetting especially for the early developers.

### 3.1.7 Puberty in Boys

The first sign of puberty in male adolescents is the enlargement and maturation of the testicles, penis, scrotum, seminal vesicles and prostrate gland, which generally occur around the age of 12 years. There is however, as in the case of girls, a wide variation in the age of onset of puberty. Public hair appears at the same time with underarm and facial hairs following later. At around 13 and 14 years, boys also begin to put on weight, height and muscles as mentioned above in growth spurts. The shoulders start to broaden and testicles begin to produce sperm. The ejaculation associated with "wet dreams" occurs at night. Their voices also change and "crack" around this time causing a lot of embarrassment to them. Some who have wished for a career in singing may have to drop out until adult voice is achieved.

### 3.1.8 Early and Late Development

Early or late development that can occur either in female or male adolescents may bring in some complexities to the attitude of adolescents generally. For example, developing early can result in great pressure on the children because emotionally they may not have reached that stage in development. The late developers also have problems, and may feel inferior to their contemporaries, if they do not show the bodily changes expected of them. Developing earlier or late, therefore may lead to complex or emotional confusion. Early developers of both sexes tend to be given more responsibilities and are expected to take more responsible decisions. They may find that they are in conflict with parents especially girls who try dressing and making up as adult. This may make the girls feel self-conscious and less confident.

Late maturing boys on the other hand, may be less distracted from schoolwork and therefore tend to do better academically. They may be less successful in sport and feel left out socially. On the positive side, it is found that late developers of both sexes tend to have stronger sense of knowing who they are.

### 3.2 Physical Changes in Adolescence and their Effects

The physical changes and their effects will be treated as follows:

### 3.2.1 The Rapid Physical Changes and Nutritional Needs

When the mode of eaten pattern of adolescents is observed, it will be noticed that they eat much more than others that are not adolescents. The reason attributed to this is that adolescents need extra nutrition to sustain their rapid growth rate. According to Siam, et al. (1986), 13 to 16 years old boys need 200 more calories of energy per day than the average adult and the older teenagers need 800 more. Therefore, nutritional needs to adolescents should be adequate and balanced, if we expect good academic performance from them. Most adolescent late developers also need nutritional therapy to achieve their normal height and catch up with their colleagues. Children tend to reach the average height of their parents or even grow taller, provided their nutrition is adequate and balanced.

Furthermore, rapid physical growth that accompanies adolescence means that certain strains maybe imposed on the young person which might lead to restlessness and fatigued if adequate rest is not allowed.

### 3.2.2 Effect of Changes in Primary and Secondary Sexual Growth

It comes as a surprise, a nasty experience and very upsetting when a girl begins menstruating early and is unprepared. Girls should be prepared in advance for the event and also be assured. They should know that it is entirely a natural happening. Moreover, an early developer should have prior knowledge, about human reproduction and that she is capable of becoming pregnant, since a well-matured adolescent girl can be attracted to the opposite sex. Adolescent girls must be made to know the expectations of the society from them. For example, in most societies, and cultures permissive sexual behaviour by adolescents is not tolerated. Some form of sexual education is usually considered necessary. This may take place in traditional or religious institutions, schools, at home or any other arrangement acceptable to the society. In this way, the adolescent can learn to reconcile her own growing sexual awareness with socially acceptable sexual behaviour.

### 3.2.3 Home and Educational Implications

- School must support the attainment of developmental tasks of adolescents if the adolescents are to completely adjust and become successful in their adult life. For example, it is important for schools to incorporate things like preparation for family life and career counselling in school curricula.

- Respect adolescents' desire for independence from parents and other adults by giving them less command and encouraging them to follow rules on their own initiatives. Students should be allowed more opportunities to participate in organizing their own learning activities. Teachers should make students realize that while physical appearance is important, it is not the only quality that should be emphasized. Responsible behaviour is also very important.

- The importance of adolescent nutrition should be emphasized in school and at home.

- School curriculum should allow time for resting, relaxation and recreation for their fast growing bodies to recoup.

- School has great responsibility to help the adolescents know how to handle their sexual needs and understand the changing development of their sexuality. The school can organize sex education, which could incorporate courses from biology, health science, health education, religious, moral education and guidance counselling.

Durojaiye (1976) made suggestions as to why sex education is very necessary in school. The objectives are as follows:

- To give correct and adequate factual information and understanding of sex.

- To cultivate correct functions to sexual experience.

- To teach children continuously socially acceptable ways of expressing sexual behaviour.

- To cultivate in children self-respect and self-control and consideration for others.

- To introduce children to the role of parents.

In addition, sex education programme in Nigerian schools should include learning about Genital Mutilation (GM), HIV/AIDS and harmful delivery consequences including Vesico Vaginal Fistula (VVF), teenage pregnancies, which UNICEF/Nigeria indicated are widespread.

HIV/AIDS prevention should also be included with emphasis on abstinence.

**Activity I:**

1. Describe the changes that occur in girls during puberty.

2. Explain as accurately as you can the meaning of:

- Growth spurts;

- Early developers;

- Late developers;

- Adolescence;

- Puberty.

3. Discuss with a group of adolescents what is meant by "initiation" ceremonies, and the advantages and disadvantages of such.

**3.3 Adolescence: Intellectual Characteristics**

Piaget's theory of cognitive development states that the period of formal operations fall between ages 11 and 16. This is the adolescent period. Piaget says that at this stage the adolescent is capable of formal thinking which he was not capable of as a child. The following represent the intellectual characteristics of adolescence:

1. Ability to Generalize Facts: Children usually generalize when faced with concrete objects. But in adolescence the ability to generalize on conceptual level develops. For example, "if the old man

is sick and his only son who has money is not around, then he is likely to die". The adolescent can also manage abstract concepts. Adolescents can understand and communicate with concepts like justice, rule of law, democracy, capitalism, etc.

2. Increased ability in Understanding: Unlike the childhood stage, the adolescent can reason better and deeper. With his increased ability in understanding, the adolescent can attempt the solution of difficult problems. They engage in critical discussion of national and international problems. Sometimes, the adolescent thinks he has the answer to all problems. This may explain why university undergraduates very often clash with authorities.

3. Ability to make Decisions: The adolescent, with time, becomes capable of making decisions based on logical and systematic considerations. He is able to survey several alternatives. The adolescent after explaining and weighing these alternatives makes a decision and abides by it. For example "Would I prefer going to a university to taking a good job offered to me in a commercial bank?" Children who are not adolescents may not be capable of taking independent decisions.

**3.4 Home and Educational Implications**

The mental characteristics of adolescence have some educational implications for the classroom teacher and parents at home.

1. Teachers and parents, as much as possible, should expose adolescents to rich experiences. This enables them to see challenging situations. For example, adolescents would like to watch a court proceeding instead of a lecture on the concept of justice.

2. Teach adolescents through the problem solving approach. You might ask, for example, 'if you become a Commissioner for Finance in your state, suggest ways of generating new revenue for your State'. They will enjoy such assignments.

3. Guided discovery method should be used for teaching the adolescent classes. For example, the teacher could guide an adolescent class through a project aimed at solving community water problem. Most of the thinking could be done by the adolescents.

4. Finally, provide for adolescents' libraries and other opportunities for free discussion and independent work.

**3.4.1 Adolescence: Social Characteristics**

It is important to know that the social adjustment of the child starts from infancy and the foundation of social development is laid in the family. The success in future relationship of the adolescent depends on this early socialization. Very often society places upon the adolescent a set of new social demands he was not used to. For example, the society would want the adolescent to join other adults in such activities as public works or village square meetings. When the adolescent fails to conform, problems are likely to emerge. This is why we shall spend some time to look at the social characteristics of adolescence.

1. The major social tasks of the adolescent are the development of personal identify. During childhood, the parent assumed a dominant role in the child's personality but the adolescent requires more independence. Questions like 'Who am I? How will I fit into this plan?' begin to come from the adolescent.

2. Another characteristic of the adolescent's social development is the increased influence of peer groups. Adolescents, as we know, remain most of the time with their peer groups. The peer group, to a great extent, determines the adolescent's social relationships. His interests, attitudes and values are all influenced by his peers. He does anything for the sake of pleasing his peers.

3. Social relationship in adolescence is heterosexual in nature. In late childhood, boys play with boys while girls tend to play with girls. But in adolescence, boys and girls become friends based on their common interests.

4. The structure of social relationship takes different forms:

(a) Chums or Friends - Friendship with opposite sex could be fairly permanent.

(b) Cliques - small exclusive groups made up of few friends.

(c) Crowds - made up of several cliques with identical interests.

(d) Organized Groups - Boys Scout, Girls Guide, and Christian Fellowship. Open to all who wish to join.

(e) Gang - made up of delinquent adolescents with similar sinister objectives.

### 3.4.2 Home and Educational Implications

The social relationships of adolescents have educational implications. They are:

1. The teacher should provide opportunities for effective use of the social groups for classroom work. A group could be asked to supervise for the teacher the class manual labour.

2. Peer teaching and group assignments should be exploited to the full.

3. Parents and teachers should provide enough lectures on moral and sex education. This should be functionally taught to guide the adolescents in their heterosexual relations.

4. The schools should have guidance and counselling experts to guide these adolescents.

### Activity II:

1. What are the intellectual characteristics of adolescence? Explain their educational implications.

2. Describe the social characteristics of adolescence and the educational implication.

### 4.0 Conclusion

The starting point of adolescence starts with puberty. Puberty is a period of rapid development, mainly physical especially in the sexual organs. This is called growth spurt. Other rapid physical growth includes the growth of bones. The effect of this rapid growth results into extra nutritional

needs to sustain the growth. The adolescents also need information and guidance to overcome the confusion they experience because of the sexual changes happening in their bodies. School should arrange guidance and counselling sessions for them and incorporate sex education into the curricula.

**5.0 Summary**

In this unit, we have:

• Shown differentiation between the terms "puberty" and "adolescence";

• discussed the physical changes that occur in boys and girls during the adolescence;

• explained the meaning of "early" and "late" developers;

• discussed the effects of early and late development on the behaviour of adolescents;

• mentioned ways teachers and parents can assist adolescents in coping with the changes

occurring in the adolescence period.

**6.0 Tutor-Marked Assignment**

1. Compare the development of girls and boys at puberty.

2. What are the educational implications of the adolescence changes?

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**GLOSSARY**

| Cognition | The process whereby the mind comes to understand facts, concepts, principles, etc. In general, it refers to thinking. |
|---|---|
| **Cognitive Development** | The process, whereby the individuals acquire more complex and adaptive ways of thinking |

| | |
|---|---|
| | and problem solving from birth through adulthood |
| **Enactive Representation** | Jerome Bruner introduces this stage in cognitive development and method of communication. During this first stage of development, the child thinks and communicates with "wordless" messages. Young children understand things best at the action level. A chair is to sit on and a spoon is to eat with. |
| **Iconic Representation** | Bruner's second stage of cognitive growth and mode of communication. At this level, the child visualizes objects or concepts. The child processes an image (icon) that represents objects. |
| **Symbolic Representation** | This is Jerome Bruner's third stage of cognitive development and method of communication. At the symbolic level, the child is able to translate experiences into languages; words can be used for communication and for representing ideas. Symbolic representation allows children to make logical connections between ideas and to think more effectively |
| **Intelligence** | The ability of an individual to solve mental problems with accuracy and speed. More intelligent people are able tothink more quickly and more accurately compared to other people of same age and background. |

# UNIT NINE: ADOLESCENCE PSYCHOLOGY III: EMOTIONAL CHARACTERISTICS OF ADOLESCENTS

**Contents**

- Freud's Stages of Emotional Development
- Emotional Characteristics of the Adolescence
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

This unit examines the emotional characteristics of adolescence by going over the emotional development of childhood first as adolescent behaviours do not come "out of the blues" but grow out of the childhood experiences.

## 2.0 Objectives

At the end of this unit, you should be able to:

(i) discuss the meaning of emotions;

(ii) explain how emotions are acquired by children;

(iii) explain the emotional characteristics of adolescents; and

(iv) discuss the educational implications of adolescent emotions.

## 3.0 Main Content

### 3.1 Freud's Stages of Emotional Development

Sigmund Freud, named three stages of emotional development in the human child. The first stage is called the oral stage and begins from birth to 18 months while the second stage is known as anal stage. It covers the period from 11/2 to 3 years of the child's life. The last stage is referred to as the phallic stage, taking place from 3 years. According to him, the sequence of major conditional transformations during these periods leaves an indelible imprint on the adult personality. He described certain dimensions of personality as being affected at each of the stages respectively. In this regard, at the oral stage, the quality of nurturing affects the future feeling of dependence and trust in the world. Likewise, independence and control are found at the fore front of development at the anal stage, while sexual identity becomes the major aspect of personality formation at the phallic stage.

Further, the periods 7-12 years and the rest of adolescence are characterized by extreme stress and strain. During the years 7-12, all the elements in the early 3 stages are integrated and no new elements are added. The adolescence period is described as the genital stage during which all the elements are however back to prepare for a fully functional adulthood, to live and work productively.

### 3.1.1 Emotional Reactions of African Children

Durojaiye (1976), through his research outcome on Nigerian and Ugandan children came out with the result that Africans grow up to be openly emotional in their behaviour compared to their counterparts in Europe. This according to him is because of the pattern of our emotions. He posited that although children all over the world are emotional, but African children, grow up in homes bound by emotional relationship within the extended family system. Our kinsmen and members of our clan can drift in and out of our lives at any time. In daily life, in our homes, emotions are openly displayed, including sadness, love, hatred, jealousy, affection, etc. The baby is warmly, fondly, carried out and played with by everyone. All these emotions are learnt from the home.

Emotional behaviour of the first two years of the child is the result of learning and maturation. Learning starts with excitement at first week of life to "affection for other children" by the age of 16 months.

### *18 Months – 4 Years*

Once emotions appear, there is a gradual emotional growth, the child is able to smile at six weeks and laugh at six months. He or she can also scream if displeased before 1 year. By the time a child is able to walk and verbalize his or her wishes, the child becomes less emotionally frustrated, but could still show temper tantrums.

As the child grows older the emotional reactions become more frequent but short-lived. Emotional reactions of fear of strange things and people appear with increasing familiarity, and widening of experiences. By the age of 4 years, foundations of emotional control have been laid by the home, through disapproval shown for some emotional displays.

### *4 – 11 Years (Primary School Years)*

Increase in demands being made on primary school child, produces frustrations and increased fears. As a child learns new motives, new needs and goals, he or she learns to get his or her own way, through developing new emotional techniques, and hiding his or her real emotions by being moody and withdrawn for instance.

Examples of some common emotions of children are: anger, love, affection, happiness, sympathy, jealousy and sadness.

### Fear

In babies, fear is caused by unexpected and strange sounds, objects, people or animals. As the child grows, through experiences or listening to lurid and disturbing stories, told by adults, his or her fears grows. Fears, including fear of darkness, water (or non swimmers), snakes, ghosts etc. appear. When the child grows older, he learns to understand his environment and overcome most of his fears. Some cultural beliefs of adults in the community, in which the child lives, reinforce some of these fears. The fear of witchcraft may persist up to adolescence, if there is constant warning about such by members of the society. Talking about repercussions for going against some superstition

will condition the child and increase fear. Listening to fearful stories about thieves, murderers, or social humiliations may suggest danger and infuse fear. Most children outgrow unreasonable fears though some persist up to adulthood.

Verbal abuses and humiliation are harmful to a fearful child or even adolescent; rather, children must be reassured and guided to overcome their fear. Children must be told that everyone is afraid of something or the other at one time or another and they often get over it.

**Nature of Fear**

Fear is a universal protective response, which is essential for our survival, since it alerts us of danger, and gets us prepared to avoid it or deal with it. Fear is both psychological (subjective feeling of fear) and physical (e.g. increase in heart beat). Fear always involves our sensing danger to ourselves, either against our physical well-being or psychological safety.

Mentally we have to develop to a certain level to be able to be alert to handle fears. Sometimes, we have to teach children a certain degree of fear, e.g. beware of strangers, be careful of the traffic; do not climb trees, as this is good for us.

**Learning of Fear**

We all know that fear is learnt. "A burnt child dreads life", is a saying we often use showing that a child learns from his or her experiences.

Fear also is contagious, as children learn fears from observing others show fear. Even adults, meeting new situations ask around to see if it is dangerous or not. When children meet new situations they often look first at their parents' faces for verbal or non-verbal reactions.

Children also learn from their contemporaries. They may learn from conditioning such as, irrational fear of vampires, ghost and so on. Conditioning means associating with an object or situation with another. Fear of death and the world beyond is associated with ghosts and hence children fear ghosts.

**Phobias**

This is a clinical or pathologically intense fear, often irrational, leading to a compulsive need to avoid that thing or event. The term "phobias" in everyday life can be used to refer to fears, which have a rational origin. When fear reaches an extreme pitch it becomes a phobia. If, for instance, a dog bites a child, he is justified to fear dogs, but if the fear becomes obsessive, it is characterized as a phobia.

**Anger**

Frustration is said to be the main cause of anger. Frustrations due to such thing as discomfort, lack of attention, and failure in an activity makes infants angry. Major causes of anger in adolescents include social frustrations and disappointments. For most adolescents, anger is expressed in a controlled way e.g. withdrawal or moodiness, though adolescent boys may seek more attention from their peers, by being aggressive. It is not expected of an adolescent or even an adult, to show

anger by shouting. But in communities where open display of aggression is tolerated, people display such behaviour.

**Activity I:**

1. Is it true that Nigerian (African) homes are full of emotion? Use observations of homes in your area to support your argument.

2. Define fear? How do we acquire it? How can we minimize children's fear?

**3.2 Emotional Characteristics of the Adolescence**

Emotional feelings in the adolescence years are deeper and longer lasting than during childhood or even adulthood. Because of wider and greater understanding of the situation involved, love, anger, hatred and jealousy are deeply felt by adolescents.

They can, however, control their feelings and sometimes hide emotions by substituting them with others, e.g. fear becomes shyness and anger.

The need for independence and social approval are other influences on adolescents' life. Unlike adults who have greater control over their emotions, among adolescents small annoyances produce major emotional outburst, because at this stage, the adolescent is going through other major changes, physically and psychologically.

**3.2.1 Psychological Needs in Adolescence: Need for Love and Security**

Conger (1977), reported that adolescents continue to need parental love and acceptance even when they show tendencies of moving towards independence. The findings of his study also indicate that in homes where adolescents are given appropriate autonomy, they are likely to become more active, outgoing, socially assertive, and friendlier and have more positive self-image.

The need for self-esteem during adolescence is also paramount. The need to belong and identify with a group is very strong. The group's friendship is vital for self-image. This sometimes compensates for lack of love and security from the home. Children whose home reinforced self concept will find it easier to make and keep friends. A degree of autonomy and independence should be balanced by parental love and security.

The need for new experiences is also vital. New experiences help children to structure their lives and form a more meaningful understanding of the world. Those of them that are engaged in activities that are interesting and rewarding are not likely to engage in destructive or anti-social behaviour.

Praise and recognition are also other needs adolescents aspire for. They need to feel that they can cope and master the tasks they are given. Recognizing their effort is therefore very important. Adolescents who can successfully complete academic, social and physical tasks are bound to feel that they are worthy of people's respect, consequently their levels of self-esteem increase.

**3.2.2 Physical Aspect of Emotional Development Adolescents**

The major physical factor in adolescence is quite simply; sex. Rapid growth during adolescence takes place in the sexual organs as mentioned in the previous unit.

All these new sexual experience are disturbing. Things are happening to their bodies, which the adolescents are worried about. Girls find that their breasts are growing, they begin to menstruate. The boys' sexual organs begin to grow too; their voice "cracks". They begin to pass semen during the night, sometimes called "wet dreams". The adolescents need explanations and guidance about all these. From the community in which the adolescents live like the parents, the family, the peer groups, the teachers, the neighbours and the religious groups, the adolescents are bombarded with their own views and advice on sexual experiences. The newspapers, the magazines, films, radio and television may also give different messages.

Moreover, adolescents have to cope with the strong emotions they do not understand and can hardly control. Girls and boys become attracted to each other and move in groups. They need sympathetic and knowledgeable adults to guide them through the confusing explanations and advice from different sources. As a teacher, you have a role to play in this.

### 3.2.3 Cultural Implications of Adolescence

It would appear, however, that culture modifies and influences the way information is passed to adolescents. For instance, in African cultures (Nigeria inclusive), the practice is that no individual exists by himself or herself as part and parcel of the community, the membership of which includes younger children, mates, elders, the departed souls and generations to come.

### 3.2.4 Educational Implications of Emotions

- Parents and teachers should understand the body changes taking place in adolescents and how they affect their emotional reactions. Therefore, allowances should be made for occasional outbursts and they should be ready to guide them to understand and overcome the effect of these changes.

- Know that an emotional behaviour can be generalized from one situation to another; the school should be a pleasant place to work and play in.

- If the ensuing emotional experience is pleasant, it will lead the student to love learning. If failure is greeted with scolding, and corporal punishment, with little attention to motivation, clarity, and relevance, students will dislike schooling. When experience of learning becomes so unpleasant, it creates the emotion of fear and boredom. In such situations, even the bright pupils will fail to profit from learning.

- Parents and teachers must promote the emotions of love, tenderness rest, joy, pleasure humour and laughter to facilitate mental health among learns.

- Emotional reactions such as fear, anxiety, guilt, jealousy and anger can inhibit bodily functions growth and even learning, therefore parents and teachers must learn to satisfy the emotional needs of children.

- Moods created by emotional experiences last for a long time in many adolescents. The

moods inhibit their disposition to learn.

**Activity II:**

1. How can the school and the home facilitate emotional well being among adolescents?

2. Discuss fear and anger as an adolescent emotional reaction. Show how the teacher can

help the adolescent overcome any of these emotions.

**4.0 Conclusion**

We have satisfied the emotional characteristics of adolescents on the basis of Freud's stages of development; Durojaiye's study of coactions of African children's; the five aspects of emotive in children including fear, phobia and anger; adolescence needs for love and security; physical aspect of emotional development in adolescents; and the educational implications of emotional development in adolescent.

**5.0 Summary**

In this unit, we have:

(i) explained the meaning of emotions;

(ii) described how emotions are acquired by children;

(iii) described the emotional characteristics of adolescents;

(iv) discussed the educational implications of adolescent emotions.

**6.0 Tutor-Marked Assignment**

1. How does Durojaiye's research on African children relate to Freud's stages of emotional development?

2. Describe the need for love and security of the adolescence and its educational implication.

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Glossary:

Needs:      What an individual requires, subjectively, for physical or psychological well being.

Self-Concept: A person's conception of his or her worth in general and in specific contexts (e.g. inability to do Mathematics, Courtship, Hockey).

# UNIT TEN STAGES OF HUMAN DEVELOPMENT – ADULTHOOD DEVELOPMENT

**Contents**

- Definition of Adult
- Maturation and Aging
- Physical Developmental in Adulthood
- Cognitive Development
- Climateric
- Later Adulthood: Integrity and Despair (65 Years On)
- Developmental Tasks of Adulthood
- Educational Implications
- Conclusion
- Summary
- Tutor-Marked Assignment
- References/Further Readings

## 1.0 Introduction

The stage of adulthood is the last phase of human development. Although there is no clear point when adulthood begins; it is universally agreed that adolescence gradually fades into young adulthood and at a later point, full adulthood begins.

Though the study of adulthood had not been considered as serious to the education of teachers but the changing emphasis on learning like education for all, lifelong learning, distance education, adult education etc. and the fact that we spend the greater part of our lives as adults (during which we are faced with the challenges of adult love, work, play, marriage, parenting, etc.) makes it mandatory for us to study adulthood psychology. The study of adulthood involves the study of the developmental sequences and characteristics of the individual and his capacity for learning.

This unit will look at the physical, cognitive, emotional and social development and the process of aging as they affect adult learning.

## 2.0 Learning Outcomes

At the end of this unit, you should be able to:

- define who an adult is;
- explain what adult education is;
- describe the processes of maturation and aging in adulthood;
- give the physiological, psychological and social changes in adulthood and their implications for learning;
- Describe the developmental tasks in adulthood.

**3.0 Main Content**

**3.1 Definition of Adult**

Adulthood can be explained from biological, psychological, chronological age, social responsibility and perceived maturity perspectives though it is different from culture to culture. An adult may be seen as an individual who has attained the age of maturity with full capacity to produce off-springs. Biologically, adulthood commences from the onset of puberty when the individual can produce off-springs. This may be accompanied by changes in skin texture, hair, body size and sight.

Psychologically, adulthood is defined by maturity and the way the individual perceives himself/ herself. This will include the chronological age, level of confidence in certain tasks, emotional stability and social responsibilities.

Chronologically, adulthood is defined by the number of years the person has lived on earth. This is the most controversial because there is no consistency in age for determining adulthood. As some claim 18 years, others suggest 20 or 21 years yet in some African countries anybody below age 25 years may not be considered as adult. Legal, political and economic adulthood in Nigeria begins at age of 18 years.

Socially, adulthood is defined by the level of social responsibilities the person assumes. This may be inherited, acquired or externally imposed. However, exceptional situations where young children take on the responsibilities of their parents or other adults owing to accidents, deaths etc. cannot be used to determine adulthood. An adult should therefore be able to assume the roles of husband or wife, father or mother, full-time worker etc. in the society.

**3.2 Maturation and Aging**

Maturation refers to progress towards maturity or adulthood. It is the process of gradually bringing the various physiological and psychological features to full development in readiness for adult social participation according to Ibeh (1990). In order for the individual to survive, the biological features of human beings mature first and start functioning adequately. These are followed by psychological capabilities such as attitudes, interest, personality, and self-concept. The last sets of features are the social features of an individual which make him to cope with others and the society. Maturation thus comes with age.

Growing old is considered as aging. Ageing is a continuous process that begins at conception through birth, infancy, childhood, adolescence, adulthood and ends with death. Aging is also described as a decline in physiological competence that inevitably increases the incidence and intensifies the effects of accidents, disease and other forms of environmental stress (Timiras, 1972).

A number of approaches had been used to explain the process of aging. Some of the theories used to explain aging include:

(a) The physiological theory of aging which states that the human organism undergoes wear and tear as it advances in age. Thus, as a man grows, he simply wears out and the structures and organs of his body decline both in function and appearance.

(b) The homeostatic imbalance theory holds that aging is characteristically an increase in homestatic faults i.e. PH and sugar levels. Some diseases are associated with this.

(c) The hereditary theory which states that people with grand-parents who live long also tend to live even longer than their grand-parents.

(d) The environmental factor theory states that aging may be due to external factors such as diseases, viruses, rural ling and radiation. The theory asserts that there are some factors operating in the environment which initiate and sustain the process of aging.

Ten stages of human development have been identified the psychologists - Pre-natal, Ne-natal, early-infancy, late-infancy, childhood, middle childhood, late childhood, adolescence, adulthood and senescence. From Pre-natal stage to adulthood, all the systems of the body are progressively growing and man is active. However, from adulthood stage to senescence, all the systems in the body begin to decline both in function and structure. This is characterized by weight lost, decline in intelligence, level of hearing and sight, wearing off of teeth, inability to walk without stick etc.All these changes have implications for adults learning and should be well understood by teachers of the adult learners.

### 3.3 Physical Developmental in Adulthood

Growth naturally ceases at 18 and human beings become mature physically between the age of 25-30 years when the body reaches its maximum size and strength. From this period, wearing down of the tissues commences. The living processes then starts slowing down and aging sets in. physical, speed and endurance also decline.

### 3.3.1 Visual Acuity

Though a number of other factors may account for visual impairment at adulthood (refractive errors, accident, muscle, impairment, diseases, cataract, glaucoma etc.) aging is the most critical factor. More and more of adults need reading glasses for near vision with increasing age and have difficulty seeing in weak light and in the periphery of vision due to loss of red cells in the retina after middle age.

### 3.3.2 Hearing Acuity

Our ability to hear high-pitched tones declines after 20 years, with loss of ability to hear lowpitched sounds beginning in the 60s. Rapid decline in hearing often starts at the age of 20 when the Central Nervous System begins to decline in function.

### 3.3.3 Sense of Taste

Our sense of taste remains much intact into late life though many adults often report that food tastes blander. This is because the sense of smell declines with aging.

### 3.3.4 Reaction Time

Reaction time measures the time interval between receiving a stimulus and reacting to it. Reaction time increases from early childhood, reaches its maximum at about 18 and then significantly declines beyond 40s.

### 3.3.5 Other Physiological Changes

A substantial number of older adults show marked declines due to cerebral arteriosclerosis (hardening of the arteries) which results in serious loss of intellectual ability. The rate and extent of these declines differ markedly from individual to individual depending partly on the level of healthy exercise and activity that the individual maintains during adulthood. Between 42 and 50, there is a decline in the strength and speed of movement in the heart. Oxygen supply to the brain

also diminishes with increasing age. All these will affect the capacity of an adult to learn.

### Activity I:

(i) Define who an adult is?

(ii) Discuss the term maturation.

(iii) Describe the physical adulthood.

### 3.4 Cognitive Development

Cognitive development continues to take place during adulthood. Small but steady improvement occurs from 20years to 70years in the components of crystallized intelligence such as knowledge of facts and word meanings. No declines occur before age 75 in such fundamental aspects of intelligence as the ability to reason about everyday problems, and understand mathematical concepts, or to learn and remember meaningful information. However, declines do occur in fluid intelligence and short term memory during later adulthood. Older adults tend to perform slightly less well than younger adults in abstract problem solving, divergent thinking and cognitive tasks that must be performed quickly. The cognitive performance of older adults is generally slow than younger adults. Older adults, however, do better than younger adults on tasks of word meaning and decision making and perform equally on learning and reasoning about everyday concepts.

### 3.4.1 Emotional Development

Erik Erikson proposed stages of adulthood development that are clearly different from those of the childhood in that:

(a) not every adult goes through the stages;

(b) the order of the changes can vary for some individuals;

(c) the timing of the changes is not controlled by biological maturation.

### 3.4.2 Early Adulthood: Intimacy vs. Isolation (17-45 Years)

The challenge of this stage is to enter into committed, loving relationships with others that partially replace the bunds with parents. If the individual succeeds in this task, there is the intimacy needed to progress in adult life. If not, he/she becomes isolated and less capable of full emotional development. This is a period of vigorous health and sexuality, rich family rewards and the potential 'for occupational advancement is high'.

### 3.4.3 Middle Adulthood: Generativity and Stagnation (40-65 Years)

The challenge here is to find meaning in our generative activities - work, family life, religion, community activities. The focus is now more on others rather than self. This could be the most productive and creative period in ones live. Generativity is a matter of reaching out rather than being self-centred. A person who is self-absorbed in this period will stagnate and find that life loses much of its meaning during middle adulthood.

### 3.5 Climateric

The early adult years are the time of increased sexual activity. This tempo is maintained till middle thirties from when the vigour decreases till late adulthood. Though most of the developments in human beings are timed more by the 'social-clock' than by biological aging.

The climacteric is one biological event that has impact on many.

Climacteric refers to the biological and psychic changes that accompany the termination of the reproductive period in female and normal diminution of sexual activity in male.

The manifestations of the climacteric are different in male and female.

The changes that accompany the male climacteric are generally less notable than in women. There is a decline in number of sperm cells produced and slight changes in the pattern of sexual arousal, but the decrease in sex hormones that occurs during the climactic appears to have few psychological or sexual effects on men.

Masters and Johnson (1966) contend that there are some factors responsible for this. These are:

- monotony associated with a longstanding sexual relationship that may lead to lack of interest on the part of the male, loss of attractiveness of the female, and failure of the relationship to develop;

- male pre-occupation with careers;

- physical or mental fatigue;

- excessive alcohol consumption;

- physical and mental dysfunction of either partner;

- fear of failure to perform.

In female, the decrease in the level of sex hormones eventually leads to the end of menstruation or MENOPAUSE. This even usually takes place between 36 and 60 but on the average of 45-48 and could be uncomfortable for some women. During menopause, the reproductive organ atrophy, the virginal wall thickens, and there is a decrease in virginal lubrication during sexual stimulation. It is sometimes accompanied by "hot flashes", anxiety, depression and insomnia. But for most women, the period passes without any difficult. In fact many women do have increased interest in sex at this period because the risk of pregnancy has passed.

**Activity II:**

(i) Describe Erik Erickson's stages of personality development in adulthood.

(ii) Why is it important for the teacher of adult learners to study this?

**3.6 Later Adulthood: Integrity and Despair (65 Years On)**

The older adult who sees meaning in his or her life when considered as a whole continues to live a satisfying existence instead of merely staying alive. However, the person who sees life as a collection of unmet goals, unanswered riddles and disappointment, may despair of ever achieving a meaningful life and will then withdraw and live out the remaining years like a prison sentence.

Most adults live beyond the traditional retirement age of 65. Many often plan second careers, get involved in politics, writing and other engaging activities in their sixties, seventies and eighties. Older people are often anxious about death and this is a frightening realization for some but for many it is accompanied by appositive focusing on the meaningful emotional priorities of life.

**3.6.1 Death and Dying**

The life cycle begins with life of a single cell and ends with the death of the being that unfolded from the cell. Everything has an end, including each of our lives. Contemplating and planning for one's death is a normal part of age. Older adults often come to accept its inevitability with little anguish. Highly religious individuals experience the least fear of death while those that do not consistently practice their faith experience the greatest fear of dying.

**3.7 Developmental Tasks of Adulthood**

Robert Havighurst (1972) postulated three levels of developmental tasks which an individual faces in his development from early adulthood to late adulthood.

These are given below:

| Age | Status | Behavioural Pattern (Roles) |
|---|---|---|
| 18 – 30 | Early Childhood | • Selecting a mate<br>• Learning to live with marriage partner<br>• Starting a family<br>• Rearing children<br>• Managing a home |

| | | • Taking on civil responsibility |
|---|---|---|
| | | • Finding a suitable social group |
| 30 – 55 | Middle Age | • Achieving adult civil and social responsibility |
| | | • Establishing and maintaining an economic standard of living |
| | | • Assisting teenage children to become responsible and happy adults |
| | | • Developing adult leisure time activities |
| | | • Accepting and adjusting to physiological changes |
| | | • Adjusting to aging parents |
| | | • Adjusting to decreasing physical strength and health |
| | | • Adjusting to retirement and reduced income |
| | | • Adjusting to death of spouse |
| | | • Establishing an explicit association with age group |
| | | • Meeting social and civil obligations |
| | | • Establishing satisfactory physical living arrangement |

## 3.8 Educational Implications

The educational implications are that:

- The teacher is facilitator.

- Learners are seen as individuals not group.

- Illumination in the classroom should be adequate.

- Ensure circular seating to ensure that all learners can hear the facilitator and see demonstrations clearly.

- Use the informal, friendly approach in greeting and working with adults.

- Outline specific objectives and both short and long term benefits of programmes.

- Use positive reinforcement frequently.

- Provide regular feedback.

- Encourage the sharing of ideas and collaborative learning.

## 4.0 Conclusion

There is no clear cut point at which adulthood, the last phase of human development begins but adolescence gradually fades into adulthood.

There are various definitions of an adult depending on the perspective which could be social, psychological, chronological, environmental, political, legal or economic.

Maturation which could be physical, psychological, or social is the process of bringing the physiological, social and psychological factors to maturity for optimal social functioning as an adult.

There are various manifestations of physiological, psychological and social development in adulthood. All these have implications for learning.

Erikson has described the various stages of adulthood development while Harighurst delineated the development tasks.

**5.0 Summary**

In this unit, we have:

(i) defined who an adult is;

(ii) explained what adult education is;

(iii) described the processes of maturation and aging in adulthood;

(iv) gave the physiological, psychological and social changes in adulthood and their

implications for learning;

(v) described the developmental tasks in adulthood.

**6.0 Tutor-Marked Assignment**

Briefly discuss the physiological and psychological changes that take place in adulthood and

their implications for adult learning.

**7.0 References/Further Readings**

Mastus, W.H. and Johnson, V.E. (1996). Human Sexual Response, Boston. Liale Brown.

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Winston.

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