CHALIMBANA UNIVERSITY

DIRECTORATE OF DISTANCE EDUCATION

PYS 1200: LIFE SPAN DEVELOPMENT PSYCHOLOGY

FIRST EDITION 2020

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ACKNOWLEDGEMENT

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MODULE OVERVIEW

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 familiarise yourself with these issues. There are a number of excellent resources on the web. A few suggested links are: http://www.how-to-study.com/ and http://www.ucc.vt.edu/stdysk/stdyhlp.html

Time frame

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

Required resources

Text books and module.

Need help

In case you have difficulties in studying this module don't hesitate to get in touch with your lecturers. You can contact them during week days from 08:00 t0 17:00 hours. Mr Moono

Maurice mmoono.75@gmail.com Tutorial Room 3,. You are also free to utilise the services of the University Library which opens from 08:00 hours to 20:00 hours every working day.

Assessment

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

REFERENCES

Required Readings

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 1: HUMAN DEVELOPMENT

1.1 Introduction

Welcome to the first unit of this module, in this unit, we will learn about human development from conception up to adulthood. Reasons for studying child development will also be discussed. We will then take a brief tour of the history of child development using various theories of child development. It may surprise you that until relatively recent times, people were not particularly sensitive to the ways in which children differ from adults.

1.2 Learning Outcomes

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

- explain the stages of human development from conception.
- discuss different types child birth and delivery.
- identify factors that affect early childhood growth and development.
- explain reasons for learning child development.

1.3 Time frame

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

1.4 Content

- Stages of human Development
- Prenatal Stages of Development

- Germinal Period
- Embryonic Period
- Foetal Period
- Neonatal Development
- Post-natal development
- Types of childbirth
- Vaginal delivery
- Caesarean section (C-Section)
- Vaginal Birth after Caesarean
- Vacuum Extraction
- Forceps Delivery
- Factors Affecting Early Childhood Growth and Development: Golden 1000 Days
- Maternal Nutrition
- Childhood Nutrition

- Breast feeding
- Complementary Feeding
- Dietary Deficiencies (Macro and Micronutrients)
- Parenting factors
- Feeding practice
- Environmental Factors
- Reasons for Studying Child Development

1.5 Stages of human Development?

It is very important for you to have a very clear understanding of child development because this is key to understanding the behaviour of the children. As you read through these stages of child development pay particular attention to factors that can affect child development at each stage.

We now want to take you through human development from conception up to adulthood.

1.6 Prenatal Stages of Development

Prenatal development is the process by which a baby develops inside the mother's womb. Prenatal development takes about 38 weeks to complete. During this time, a single cell becomes a fully formed baby.

This period is divided into different categories of development. The three (3) primary stages of a prenatal development are the germinal period, the embryonic period, and the foetal period. Each of these stages is important for reaching the ultimate goal of a healthy baby.

1.6.1 Germinal Period

Before you start reading about the germinal period check the meaning of the following words: cleavage and blastocyst. I hope you have an idea of their meaning now.

The germinal period starts from conception. Conception is when the mother's egg is fertilized by the father's sperm. Pregnancy is considered to begin at the first day of the mother's last menstrual period. Conception typically occurs at what is considered the 2nd week of pregnancy.

The union of the sperm and egg cell forms a single cell called a zygote. The zygote moves along the fallopian tube towards the uterus. At the same time, the zygote is rapidly dividing in a process called cleavage (this is the early successive splitting of a fertilized ovum).

Once it reaches the uterus, the zygote becomes what is called blastocyst (blastocyst is a thin – walled hollow structure in early embryonic development that contains a cluster of cells called the inner cell mass from which the embryo arises, and it begins to implant into the wall of the uterus. The germinal period ends when the blastocyst is fully implanted into uterus tissue.

1.6.2 Embryonic Period

 This stage lasts from implantation until about eight weeks from the time of conception (up to the 10th week of pregnancy). This is the most important time of prenatal development because the embryo is developing the foundations for a healthy baby. What do you think are the factors that can affect the developing child at this stage?

The blastocyst that is implanted in the uterus continues to divide rapidly after implantation through a process called differentiation (differentiation is a process by which cells become progressively more specialised: a normal process through which cells mature). Cells begin to take on different functions. One of the first examples of this is a division between the cells that will make up the placenta and cells that will make up the baby.

After this, a process called gastrulation (gastrulation is defined as a process in which three germ layers are formed these layers are ectoderm, mesoderm and ectoderm) these form three layers called germ layers. The outer layer is called the ectoderm, this is the layer which gives

rise to important tissues and structures including the skin and its appendages such as sweat glands, hair and nails. The middle layer is called the mesoderm, is a layer which gives rise to a number of tissues and structures including bones, muscles, and the inner layer are called the endoderm this is a layer of an embryo which develops into gastrointestinal track the lungs and associated structures.

Each germ layer will differentiate into different structures; the ectoderm will form many outer tissues such as skin and hair, as well as most of the nervous system tissues- including the brain. The mesoderm will form tissues inside the body such as lungs, bones, and musclesincluding the heart. The endoderm will form tissue such as digestion tract and bladder, as well as other internal organs.

All of the essential structures would have been formed (both inside and outside) by the time the embryonic period comes to an end. The new title of foetus is now given to the embryo.

Embryogenesis is a term that can be used to describe all of the processes of embryo development up until the time it becomes a foetus.

1.6.3 Fetal Period

This final stage of development is called the **fetal period** of development. This stage takes place from the end of the embryonic period until the time of birth (or the 10th to 40th weeks of pregnancy).

The most notable development during this stage is the dramatic change in size that takes place. When the baby becomes a fetus, it is less than an inch and half long and weighs less than 1/10 of an ounce. By the time the baby is considered full term of 38 weeks, it will be probably be over 20 inches long and weigh about 7 ½ pounds.

1.6.4 Neonatal Development

The neonatal period (birth to 1 month) is on-going system transition from uterine environment to external world. This includes the initial period after birth which is referred to as the prenatal period.

It would seem obvious to say development does not stop at birth. In fact, many systems (cardiovascular, respiratory gastrointestinal, homeostasis) undergo significant changes at birth, and many others (neural) have not yet completed their development. Note this current project focuses on prenatal development so postnatal content is not as detailed.

1.6.5 Post-natal development

Postnatal development can be broadly divided into the age categories of Neonatal (birth to 1 month). infancy (1 month to 2 years). Childhood is from two (2) years to puberty), puberty development) (12 years to mid-teens) and young adult which is new category (late teens to early twenties).

1.6.6 Different Types of childbirth and Delivery Methods You Should Know

Since 1900 trends have changed dramatically with the increase of technology and modern medical practice. For instant in 1900 almost all US births occurred outside a hospital. But by 1940, more than half of births were taking place in hospitals. The trend continued and by 1969 only 1% of births occurred outside a hospital. In Zambia unfortunately most births take place outside the hospital and as you will see later such types of birth could have a negative impact on the development of the child.

Medical technology made childbirth safer experience over the past century for both mother and baby. Hospitals have responded to trends in childbirth, such as the need for a more homelike environment in the hospitals now offer comfortable maternity suites that convert into state of the art delivery rooms.

An easy birth and a perfectly executed birth plan are ideal. But we know that even the most carefully planned birth can take twists and turns. In those cases, it's important to be prepared for alternative delivery of the delivery methods.

 Different Kind of Childbirth and Delivery Methods

1.6.6.1 Vaginal delivery

In a vaginal delivery, the baby is born through the birth canal. It's hard to know when exactly you will go into labour, but most women give birth at around 38-41 weeks of pregnancy.

It is recommended that the pregnant women plan for vaginal birth unless there is a medical reason for a caesarean. Gynaecologists say that maternal-request caesareans are especially not recommended for women planning to have several children, nor should they be performed before 39 completed weeks of pregnancy.

Benefits of vaginal delivery:

- Shorter hospital stays

- Lower infection rates
- Quicker recovery
- Babies born vaginally have a lower risk of respiratory problems

1.6.6.2 Caesarean section (C-Section)

Of course, we know that not all births happen the way we plan. When complications arise, other methods of delivery are available.

A caesarean section or C-section is the delivery of a baby through a surgical incision in the mother's abdomen and uterus. In certain circumstances, a C-section is scheduled in advance. In others, it's done in response to an unforeseen complication.

Events that may require C-section.

- Multiples (twins, triplets, etc.)
- A very large baby
- Previous surgery, C-Sections, or other uterine conditions
- Baby is in breech (bottom first) or transverse (sideways) position
- Placenta Previa (when the placenta is low in the uterus and covers the cervix) □ Fibroid or other large obstruction.

1.6.6.3 Vaginal Birth after Caesarean

In the past, a C-section ended any hope of future deliveries. But, thanks largely to changes

In surgical technique, VBAC is possible in many cases in fact, an estimated 75 per cent of women who try VBAC have a successful vaginal delivery.

VBAC is not right for everyone, though. Sometimes a pregnancy complication or underlying condition prevents the possibility to a successful VBAC. Many local hospitals do not offer VBAC because they do not have the staff or resources to handle emergency C-sections.

1.6.6.4. Vacuum Extraction

A vacuum extraction is a procedure sometimes done during the course of vaginal childbirth. During vacuum extraction, a healthy care provider applies the vacuum (a soft or rigid cup with a handle and a vacuum pump) to the baby's head to help guide the baby out of the birth canal.

1.6.6.5. Forceps Delivery

A forceps delivery is a type of operative vaginal delivery. It's sometimes needed in the course of vaginal childbirth. In a forceps delivery a health care provider applies forceps (an instrument shaped like a pair of large spoons or salad tongs) to the baby's head to help guide the baby out of the birth canal. These are not the only types of childbirth available, can you think of other types that are not discussed here.

1.7 Factors Affecting Early Childhood Growth and Development: Golden 1000 Days

In developing countries, research has shown that more than 200 million children under five years fail to reach their potential in cognitive and social development dual to poverty, poor health, nutrition, and deficit care. Most of these children live in south Asia and sub-Saharan Africa. Other factors that compromise overall development during pregnancy and after birth are parent's behavioural, dietary deficiencies, chronic infections, exclusive breastfeeding, inadequate feeding practices and lack of stimulation environments.

The first 1000 days of life span from day of conception till the child attends years of age (UNICEF, Nepal), is considered the most important development phase. What happens to the child in these early days has immense impact on child's development at latter part of the years. Some of the factors that make children to fail to reach their potential in cognitive and social development are as follows:

1.7.1 Maternal nutrition

Nutrition is important before and during pregnancy and is most influential non-genetic factors in foetal development. Maternal under nutrition is a risk factor for foetal growth restriction and has adverse perinatal outcomes.

Mother's poor nutrition status during pregnancy are indicated of intrauterine growth restriction whereby affecting brain development. Low maternal weight before conception is associated with an increased risk birth weight and symmetrical growth restriction and pregnancy loss.

A study in Brazil had shown that low birth weight infant with intrauterine growth restriction have lower development levels than infant with birth weight at 3000-3499g. Infants born at term with low birth weight in Guatemala had lower cognitive scores at age 2 and 3 years and in Jamaica had poorer problem solving ability at 7 months (12) and lower developmental

levels at 15 and 14 months. Moreover, low birth weight infants in Brazil and Jamaica were also rated as less active, less vocal, happy or cooperative. Status of foetal development is associated by maternal nutrition and low birth weight is a major risk factors affect child's mental, physical and cognitive development.

As you can see from this research evidence that children may be victims of what their parents did during pregnancy, it is therefore important for to be considerate and be willing to go an extra mile in order to help them develop fully.

Childhood Nutrition

1.7.2 Breast feeding

Traditionally you have heard that breast milk is ideal and best food for infants, it provides a unique nutrient constituting of proteins, carbohydrates and fats needed for optimal call function and growth. Further, the contents changes to suit the nutrient requirements of child's development with age. Exclusive breastfeeding up to six months of age helps improving health and development of the child. Breastfeeding babies are less likely to develop obesity and will have lower cholesterol level in their later life. Fatty acids in breast milk develops the brain and thus enhance cognitive development and visual acuity.

1.7.3 Complementary Feeding

An appropriate and adequate start of complementary feeding at six months is critical for development. In many developing countries, children of these age groups do not receive timely, appropriate and adequate feeding to grow to optimum level Adding food too soon takes the place of breast milk which results in a low nutrients and increase risk of illness. Often the child does not receive appropriate nutrients thus resulting in restriction of growth and development.

Complementary feeding contributes to child growth and development as infant from 6 months to 18 months are especially vulnerable in developing malnutrition. According to UNICEF, a third of children younger than 5 years in developing countries have linear growth retardation or stunting. Stunting is a chronic malnutrition and is caused by poor nutrition and infection. Stunting is also associated with lethargy, less positive effect, lower levels of play and poor attention.

1.7.4 Dietary Deficiencies (Macro and Micronutrients)

Macro and micro nutrients are essential for normal growth and development and it is more important during pregnancy. Vitamin A is essential for vision, cellular differentiation, immune function and bone remodelling. Iodine is essential trace element to prevent goitre and cretinism, deficiency with it results in developmental delay and other health problems. One of the concerns micronutrients deficiencies is anaemia and it is critical public health problem in especially in developing countries.

1.7.5 Parent Behaviour

Smoking during pregnancy and exposure to environmental tobacco smoke has serious health consequences for both mother and the baby. The estimated relative risk of outcome negative associated with smoking in pregnancy is 2.04. In the similar magnitude, consumption of alcohol has adverse effect to the development of the foetus during pregnancy. The adverse effects of alcohol consumption during first eight weeks of pregnancy can cause, limb and cardiovascular defects. Which is known as foetal alcohol syndrome (FAS) and exposure in later pregnancy may affect growth of foetus and associate with behavioural and cognitive development. No research has proven the safe amount of alcohol drinking during pregnancy.

1.7.6 Parenting factors

Young children are dependent on the care they receive and their growth depends on the capacity of the caregivers. Lack of personalized care during the early years of life has a devastating effect on the child's health**,** growth personality adjustment and cognitive capacity. Sensitivity and responsiveness have been health identified as key features of care giving behavioural related to later positive health and development outcomes in young children. Several experimental and intervention studies on cognitive stimulation on young children shows higher cognitive functioning with additional cognitive stimulation or learning opportunities than those children compared with no stimulation.

Language and cognitive development are especially important during six months to three years of life. When children spend early years in a less stimulating environment, brain development is affected and leads to cognitive, social and behavioural delay. High level of adversely and stress during early childhood can increase the risk of stress-related diseases and learning difficulties.

Social Culture Factor

1.7.7 Feeding practice

Traditional practice being strong in Bhutan, 8.2% of new born are given water or butter (pre lacteal feeding) within 24 hours of birth (2) and it is an important factor in delaying initiation of lactation. Common feeds given on the first day of life are butter (5.6%) and water (2%) Introduction of pre lacteal feed delays the milk let down reflex and could contribute to lactation failure. Education including curtailing the use of pre lacteal feeds in addition to promoting early initiation of breastfeed with skin to skin need to be strengthens.

1.7.8 Care

Babies and young children have potential to learn soon after birth and they learn through seeing, doing, hearing and touching. They learn more as they grow older. They are natural sociable and curious, and interested in communicating with other people in various, way including eye contact, body movement, sounds and facial expression. These potential can be unfolded only through play and communication and interaction with caregiver and other people.

Bhutanese believe that babies do not see at birth and takes around three to four weeks to see. This belief does not allow the caregivers to talk to new born babies. This prevents from providing an opportunity to help to stimulate the development of child's skills. Wrapping the new born tightly "swaddling" is common in Bhutan, which does not allow new born to move and touch people and things freely. Another belief is talking to those children who does not speak a word is considered as sin, thus limiting the communication activity for stimulation of child's development.

1.7.9 Environmental Factors

Foetuses exposed to lead and arsenic before maybe born early or underweight and that's compromise child development. The prevalence rate of exposure to lead worldwide is 40% and children in developing countries are at higher risk and at least 30 million people in Southeast Asia are exposed to arsenic via drinking water. Infectious diseases in children can affect development through direct and indirect pathway. Diarrhoea is particularly prevalent during first 2 years of life due to lack of accessibility to clean water or inadequate sanitation. In Bhutan over the two years of time, there is increased in access to improved drinking water

by 1.6% with 96.1% in 2010 and 97.7% in 2012 (31). There is also increase in use of improved sanitation by 7.9% with 58.4% in 2010 and 66.3% in 2012 but still diarrhoea remains a problem in Bhutan.

You have heard the word *child* all your life, so why bother to define it? We do so because words in common usage are frequently used inexactly. A child is a person undergoing the period of development from *infancy* to *puberty*, two more familiar words that are frequently used inexactly. The term infancy derives from Latin roots meaning "not speaking," and infancy is usually defined as the first 2 years of life, or the period of life before the development of *complex* speech. We stress the word *complex* because many children have a large vocabulary and use simple sentences before their second birthday.

Researchers commonly speak of two other periods of development that lie between infancy and adolescence: early childhood and middle childhood. Early childhood encompasses the ages from 2 to 5 years. Middle childhood generally is defined as the years from 6 to 12. In Western society, the beginning of this period usually is marked by the child's entry into first grade. To study development, we must also look further back to the origin of sperm and ova (egg cells), the process of conception, and the prenatal period. Yet even that is not far enough to satisfy scientists. We also describe the mechanisms of heredity that give rise to traits in both humans and other animals.

Development is the orderly appearance of physical structures, psychological traits, behaviours, and ways of adapting to the demands of life over time. The changes brought on by development are both *qualitative* and *quantitative*. Qualitative changes are changes in type or kind. Consider motor development. As we develop, we gain the abilities to lift our heads, sit up, crawl, stand, and walk. These changes are qualitative. However, within each of these qualitative changes are quantitative developments, or changes in *amount*. After babies begin to lift their heads, they lift them higher and higher. Soon after children walk, they begin to run. Then they gain the capacity to run faster.

Development occurs across many dimensions: physiological, cognitive, social, emotional, and behavioural. Development is spurred by internal factors, such as genetics, and it is shaped by external factors, such as nutrition and culture.

The terms *growth* and *development* are not synonymous, although many people use them interchangeably. Growth is usually used to refer to changes in size or quantity, whereas

development also refers to changes in quality. During the early days following conception in the fallopian tube, the fertilised egg cell develops rapidly. It divides repeatedly, and cells begin to take on specialised forms, yet it does not "grow" in that there is no gain in mass. Why? Because the developing mass of cells has not yet become implanted in the uterus and therefore is without any external source of nourishment. Language development refers to the process by which the child's use of language becomes progressively more sophisticated and complex during the first few years of life. Vocabulary growth, by contrast, refers to the simple accumulation of new words and their meanings.

Child development, then, is a field of study that tries to understand the processes that govern the appearance and growth of children's biological structures, psychological traits, behaviour, understanding, and ways of adapting to the demands of life.

Professionals from many fields are interested in child development. They include psychologists, educators, anthropologists, sociologists, nurses, and medical researchers. Each brings his or her own brand of expertise to the quest for knowledge. Intellectual cross – fertilised enhances the skills of develop mentalist and enriches the lives of children.

1.8 Why Do We Study Child Development?

Why do researchers study child development? An important motive for studying child development is curiosity and the desire to learn about children. Curiosity may be driven by the desire to answer questions about development that remain unresolved. It may also be driven by the desire to have fun. (Yes, children and the study of children can be fun.) There are other motives described below.

To Gain Insight into Human Nature

For centuries, philosophers, scientists, and educators have argued over whether children are aggressive or loving, whether children are conscious and self – aware, whether they have a natural curiosity that demands to unravel the mysteries of the universe, or whether they merely react mechanically to environmental stimulation. The quest for answers has an effect on the lives of children, parents, educators, and others who interact with children.

To Gain Insight into the Origins of Adult Behaviour

How do we explain the origins of empathy in adults? Of antisocial behaviour? How do we explain the assumption of "feminine" and "masculine" behaviour patterns? The origins of special talents in writing, music, athletics, and math?

To Gain Insight into the Origins of Sex Differences and Gender Roles, and the Effects of Culture on Development

How do gender roles – that is, culturally induces expectations for stereotypical feminine and masculine behaviour – develop? Are the sex differences in cognition and behaviour? If so, how do they develop?

To Gain Insight into the Origins, Prevention, and Treatment of Developmental problems

Fatal alcohol syndrome, **PKU, SIDS**, Down syndrome, autism, hyperactivity, dyslexia, and child abuse are but a handful of the buzzwords that stir fear in parents and parents – to – be. A major focus in child development research is the search for the causes of such problems so that they can be prevented and, when possible, treated.

To Optimise Conditions of Development

Most parents want to provide the best in nutrition and medical care so that their children will develop strong and healthy bodies. Parents want their infants to feel secure with them. They want to ensure that major transitions, such as the transition from the home to the school, will be as stress – free as possible. Developmentalists therefore undertake research to learn about issues such as:

- The effects of various foods and chemicals on the development of the embryo
- The effects of parent – infant interaction immediately following birth on bonds of attachment
- The effects of bottle feeding versus breast feeding on mother – infant attachment and the baby's health
- The effects of day – care programmes on parent – child bonds of attachment and on children's social and intellectual development

- The effects of various patterns of child rearing on development of independence, competence, and social adjustment

1.9 The Development of Child Development

Child development as a field of scientific inquiry has existed for little more than a century.

What views of children do we find throughout history? In ancient times and in the Middle Ages, children often were viewed as innately evil and discipline was harsh. Legally, medieval children were treated as property and servants. They could be sent to the monastery, married without consultation, or convicted of crimes. Children were nurtured until they were 7 years old, which was considered the "age of reason." Then they were expected to work alongside adults in the home and in the field. They ate, drank, and dressed adults throughout most of the Middle Ages, (For much of the Middle Ages, artists depicted children as small adults.) However, that means more was expected of them, not that they were given more privileges.

The transition to the study of development in modern times is marked by the thinking of philosophers such as John Locke and Jean – Jacques Rousseau. **Truth or Fiction Revisited:** Englishman John Locke (1632 – 1704) believed that the child came into the world as a *tabula rasa* – a "blank tablet" or clean slate – that was written on by experience. Locke did not believe that inborn predispositions toward good or evil played an important role in the conduct of the child. Instead, he focused on the role of the environment or of experience. Locke believed that social approval and disapproval are powerful shapers of behaviour. Jean – Jacques Rousseau (1712 – 1778), a Swiss – French philosopher, reversed Locke's stance. Rousseau argued that children are inherently good and that, if allowed to express their natural impulses, they will develop into generous and moral individuals.

During the Industrial Revolution, family life came to be defined in terms of the nuclear unit of mother, father and children rather than the extended family. Children became more visible, fostering awareness of childhood as a special time of life. Still, children often laboured in factories from dawn to dusk through the early years of the 20th century.

In the 20th century, laws were passed to protect children from strenuous labour, to require that they attend school until a certain age, and to prevent them from getting married or being sexually exploited. Whereas children were once considered the property of parents to do with as they wished, laws now protect children from the abuse and neglect of parents and other caretakers. Juvenile courts see that children who break the law receive fair and appropriate treatment in the criminal justice system.

1.10 Terminologies

1. Differentiation: is a process by which cells become progressively more specialized through which cells mature.
2. Ectoderm: this is the layer which gives rise to important tissues and structure including the skin and its appendages such as sweat glands.
3. Endoderm is the layer of an embryo which develops into gastrointestinal track, the lungs and associated structures.

1.11 Activity

1. Discuss what may cause caesarean section type of delivery.
2. Briefly explain what happens at the following stages of child development:
(a) Pre-natal
(b) Post-natal

1.12 Reflection

Why do you think it is important for a student of psychology to learn about child development?

1.13 Summary

In this section you have learnt about stages of human development from conception, you have also learnt about various types of child birth and their associated benefits and challenges. You further looked about factors that can affect child development such as dietary deficiencies and parental behaviour. It is hoped that by this time you have a clear understanding of child development from conception up to adulthood. In the next unit, you are going to learn about how children get attached to their care givers.

UNIT 2: ATTACHMENT THEORY

2.1 Introduction

The development of an emotional bond or attachment is usually formed between an infant and his or her care giver during the first year of life and is seen by many as an important base for future relationships. In this Unit, attachment theory, phases of infant's attachment to their care givers and quality of attachment will be discussed.

2.2 Learning Outcomes

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

- discuss John Bowlby's theory of attachment.
- explain phases of infant's attachment to caregivers.
- identify attachment related fears.
- compare different types of quality of parent-infant attachment.

2.3 Time frame

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

2.4 Content

- Attachment Theory
- Phases of Infant's Attachment to the Caregivers
- Attachment - Related Fears
- Exploratory Behaviour
- The Quality of the Attachment

2.5 Attachment Theory

Attachment theory is today's most influential theory of parent-child and other close relationships, was formulated by John Bowlby, a British Psychiatrist who died in 1990. It was elaborated on by his colleague Mary Ainsworth, an American Developmental Psychologist who died in 1999. It was based on ethological theory, with its focus on the adaptive value of the evolved behavior of species and included concepts from psychoanalytic theory (Bowlby was a therapist trained in analytic thinking about mother-child relationships and their

contributions to psychopathology) and cognitive theory (Bowlby believed that expectations about sex and others are important, as you will see later in this unit). Attachment theory replaced a learning theory perspective on early relationships, which held that caregivers become sources of reinforcement to infants through their association with food, comfort and other primary reinforcers (Ruthaus, 2008).

According to Bowlby (1969), an attachment is a strong affectional tie that binds a person to an intimate companion. It is also a behavioral system through which humans regulate their distress when under threat by seeking proximity to another person. Bowlby maintained that the Quality of the early parent-infant attachment has important effects on later development, including the kinds of relationships people have with friends, romantic partners and their children. He proposed that, based on their interactions with caregivers, infants construct internal working models which are cognitive representation of themselves and other people that shape their expectations about relationships and their processing of social relationships. Securely attachment infants who have received responsive care will form internal working models suggesting that they are lovable individuals and that other people will be trusted to care for them. By contrast, insecurely attached infants subjected to insensitivity, neglectful, or abusive care may conclude that they are difficult to love, that other people are unreliable, or both. The insecure infant would be expected to have difficulties in later interpersonal relationships. They may for example, be wary of entering close relationships or become jealous and overly dependent.

In summary, attachment theory, as developed by Bowlby and elaborated by Ainsworth claimed that:

1. The capacity to form attachment is part of our evolutionary heritage.
2. Attachment unfolds through an interaction of biological and environmental forces during a sensitive period early in life.
3. The first attachment relationship, the one between infant and caregiver, shapes later development and the quality of later relationships and
4. Internal working models of self and other serve as the mechanism through which early experience affect later development.

2.6 Phases of Infant's Attachment to the Caregivers

Infants need time before they are developmentally ready to form attachment. They progress through the following phases (Ainsworth, 1973; Bowlby, 1969).

1. **Undiscriminating Social responsiveness** (birth to 2 or 3 months): Very young infants are responsive to voices, faces and other social stimuli, but at this stage any human interests them. They do not yet allow a clear preference for one person over another.

2. **Discriminating Social responsiveness** (3-6 months): At this stage infant begin to express preferences for familiar companions. They are likely to direct their biggest grins and most enthusiastic babbles towards those companions, although they are still friendly to strangers.

3. **Active Proximity Seeking or true attachment** (6-7 months to about 3 years): around 6- 7 months, Infants form their first clear attachments, most often to their mothers. Now able to crawl, an infant will follow her mother to stay close, protests when her mother leaves, and greets her mother warmly when she returns. Within weeks after forming their attachments, most infants become attached to other people as well such as fathers, siblings, grandparents and regular baby-sitters. By 18 months, few infants are attached to only one person, and most are attached to several.

4. **Goal directed Partnership** (3 years and older): By about age 3, partly because they have more advanced social cognitive abilities, children can take a parent's goal and plans into consideration and adjust their behavior to achieve the all goal of maintaining optimal proximity to the attachment figure. Thus, a 1 year old cries and tries to follow when dad leaves the house to talk to a neighbor, whereas a 4 year old probably understands where dad is going and can control the need for his attention until he returns. The child capable of symbolic thinking can also maintain proximity symbolically - conjuring a mental representation of the parent; possibly even reassuringimagining the reassuring things mom might do or say to provide comfort. To participate in a goal directed partnership, children need to understand other people's needs and intentions, and they need skills in communication and cooperation (weiten, 2010). This final partnership phase of attachment lasts a life time.

2.7 Attachment - Related Fears

 Infants no sooner experience the pleasures of love than they discover the agonies of fear. One form of fear which is separation anxiety is an important sign that an attachment has been formed. Once attached to the parent, babies often become wary or fretful when separated from that parent and will follow the parent to try to avoid separation. Separation anxiety normally appears when infants are forming their first genuine attachments, peaks between 14 and 18 months.

A second fearful response that often emerges shortly after an infant becomes attached to someone is stranger anxiety; this is a wary or fretful reaction to the approach of an unfamiliar person. Anxious reaction to strangers is often mixed with signs of interest, and it becomes common between 8 and 10 months, continue through the first year and gradually declines in intensity over a second year (Sroufe, 1996).

Exploratory Behaviour

  The formation of strong attachment to a caregiver has an important consequence: It facilitates exploratory behavior. Ainsworth and her colleagues (1978) emphasized that an attachment figure serves as a secure base for exploration which is a point of safety from which an infant can feel free to venture and to which she can return if frightened. A Securely attached infant visiting a neighbor's home with mom may be comfortable cruising in the living room as long as she can check occasionally that mom is still on the couch, but may freeze and fret if mom disappears into the bathroom. Infants apparently need to rely on another person to feel confident about acting independently.

2.8 The Quality of the Attachment

 Ainsworth made her most notable contribution to attachment theory by devising a way to asses differences in the quality of parent-infant attachment, therefore making Bowlby's psychoanalysis hypothesis testable (Thompson & Raikes, 2003). The quality of attachment to parents can be characterized as one of four types: secure resistant, avoidance and disorganized – disoriented.

1. **Secure attachment**: About 60 to 65% of 1-year olds in our society are securely attached to their mothers (Colin, 1996). The Securely attached infant actively explores the room when alone with his mother because she serves as a secure base. The infant

may be upset by separation but greets his mother warmly and is comforted by her presence when she returns. The Securely attached child is outgoing with a stranger when the mother is present.

2. **Resistant attachment:** About 10% of 1-year olds show a resistant attachment, an insecure attachment characterized by anxious ambivalent reaction. The resistant infant is anxious and often does not venture off to play even when his mother is present,

   which suggests that she does not serve as a secure base for exploration, yet this infant becomes distressed when his mother departs, often showing more separation anxiety than the securely attached infant, perhaps because he is uncertain whether the mother will return, when his mother returns the infant is ambivalent: He may remain near his mother but seems to resent her for having left, may resist if she tries to make physical contact and may even hit and kick her in anger. Resistant infants are also wary of strangers, even when their mothers are present. It seems then that resistant or ambivalent infants want affection and work hard to get the attention of their care givers because they are never sure it will be forthcoming.

3. **Avoidant attachment:** Infants with avoidant attachment (about 15% of 1-year olds) seem uninterested in exploring, shows little distress when separated from their mothers and avoid contact when their mothers return. The insecurely attached infants are not particularly wary of strangers but sometimes avoid or ignore them in much the same way that they avoid or ignore their mothers. Avoidant infants, then seem to have distanced themselves from their parents, almost as if they were denying their need for affection or had learned not to express their emotional needs, whereas the attachment system of the resistantly attached infant is hyper activated, always alert to threats and ready to seek proximity to the attachment figure, the attachment system of the avoidantly attached infant is deactivated (Mikulincer&Shever, 2003).

4. **Disorganized – disoriented attachment:** Ainsworth's work initially focused on secure, resistant and avoidant attachment styles. Some infants do not develop any of these coherent ways of copying for their needs for proximity to their caregivers when they are stressed. Up to 15% of infants – more in high risk families display what is now recognized as a fourth attachment classification, one that seems to be associated with later emotional problems (Atkinson & Goldberg, 2004). Disorganized – disoriented attachment has features of both resistant and avoidant styles and reflects

confusion about whether to approach or avoid a parent (Main & Solomon, 1990). Reunited with their mothers after separation, these infants may act dazed and freeze or lie on the floor immobilized or they may seek contact but then abruptly move away as their mothers' approach them, only to seek contact again. Unlike secure, resistant, or avoidant infants, infants with a disorganized – disoriented attachment have not been able to devise a coherent strategy for regulating negative emotions, such as separation anxiety; they seem frightened of their parent and stuck between approaching and avoiding this frightening figure (Hesse& Main, 2000).

2.9 Terminology

1. Attachment: this is the emotional bond that exist between a child and a caregiver.

2.10 Activity

1. Analyze different Qualities of attachment proposed by Ainsworth.

2. Explain the Phases of Infant's attachment to the care givers.
3. Discuss attachment related fears.

2.11 Reflection

What do you think would happen to a child who has not developed attachment to his/her care giver?

2.10 Summary

In this unit, you have learnt about factors that influence attachment of children to their care givers. Phases of infant's attachment to the care giver were also explained. At this point we hope you clearly understand undiscriminating social responsiveness, active proximity seeking and goal directed partnership as they relate to attachment. Other aspects covered in this unit are attachment related fears and types of attachment. Now that you understand attachment theory, we will introduce you to the social ecological theory of human development.

UNIT 3: SOCIAL ECOLOGICAL MODEL OF HUMAN DEVELOPMENT

3.1 Introduction

Human behaviour and the factors influencing it are very complex. Models are used to provide a framework to understand the numerous factors and behaviours that enable or act as barriers to effective participation. Models are used to help us understand a specific problem in a particular setting or context. They help us to identify factors related to participation, access and retention in specific education settings therefore enabling the design of more effective interventions. In the context of education, the term intervention is used to describe a strategy, program or policy that is designed to have an impact on education participation. Models are used to inform intervention development, implementation and evaluation.

3.2 Learning Outcomes

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

- explain the background to the social ecological model.
- discuss Urie Bronfenbrenner's social ecological systems theory. ☐ discuss core principles of social ecological model.

3.2 Time frame

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

3.3 Content

- Background to the Social-Ecological Model
- Urie Bronfenbrenner's Ecological Systems Theory
- The five-layer ecological framework for human development as illustrated by bronfenbrenner
- Microsystem
- Mesosystem
- Exosystem
- Macrosystem
- Chronosystem
- Components of the social-ecological model

3.4 Background to the Social-Ecological Model

The social-ecological model was developed out of the work of a number of prominent researchers. These include:

- Urie Bronfenbrenner's Ecological Systems Theory (1979), which focused on the relationship between the individual and the environment.
- Kenneth McLeroy's Ecological Model of Health Behaviours (1988), which classified five different levels of influence on health behaviour, although this did not include physical environment, which is an essential element of a social-ecological model of physical activity.
- Daniel Stokols's Social Ecology Model of Health Promotion (1992, 2003), identified the core assumptions which underpin the social-ecological model (Glanz 2008, pp. 468–469).

The work of these and other researchers has been used and modified and has evolved into what is referred to as the social-ecological model. In this unit we will discuss Urie Bronfenbrenner's Ecological Systems Theory.

3.5 Urie Bronfenbrenner's Ecological Systems Theory
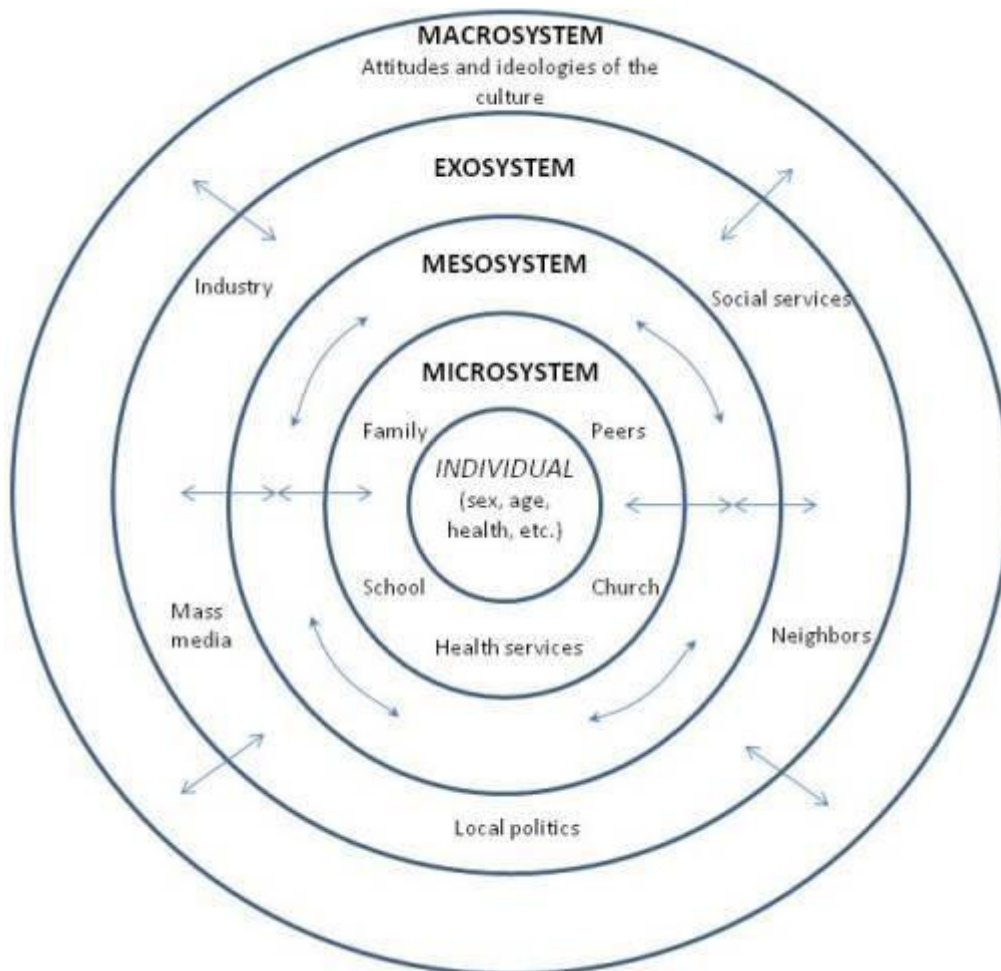
Figure 1: The five-layer ecological framework for human development as illustrated by Bronfenbrenner (Source, Beck 2004 Human Development)

Ecological systems theory

In his original theory, Bronfenbrenner postulated that in order to understand human development, the entire ecological system in which growth occurs needs to be taken into account. This system is composed of five socially organized subsystems that support and guide human development. Each system depends on the contextual nature of the person's life and offers an ever growing diversity of options and sources of growth. Furthermore, within and between each system are bi-directional influences. These bi-directional influences imply that relationships have impact in two directions, both away from the individual and towards the individual.

Because we potentially have access to these subsystems we are able to have more social knowledge, an increased set of possibilities for learning problem solving, and access to new dimensions of self-exploration.

Microsystem

The Microsystem is the layer closest to the child and contains the structures with which the child has direct contact. The Microsystem encompasses the relationships and interactions a child has with his or her immediate surroundings such as family, school, neighbourhood, or childcare environments. At the Microsystem level, bi-directional influences are strongest and have the greatest impact on the child. However, interactions at outer levels can still impact the inner structures. This core environment stands as the child's venue for initially learning about the world. As the child's most intimate learning setting, it offers him or her reference point for the world. The Microsystem may provide the nurturing centrepiece for the child or become a haunting set of memories. The real power in this initial set of interrelations with family for the child is what they experience in terms of developing trust and mutuality with their significant people. The family is the child's early microsystem for learning how to live. The caring relations between child and parents (or other caregivers) can help to influence a healthy personality. For example, the attachment behaviours of parents offer children their first trust-building experience.

Mesosystem

The mesosystem moves us beyond the dyad or two-party relation. Mesosystems connect two or more systems in which child, parent and family live. Mesosystems provide the connection between the structures of the child's microsystem. For example, the connection between the child's teacher and his parents, between his church and his neighbourhood, each represent mesosystems.

Exosystem

The exosystem defines the larger social system in which the child does not directly function. The structures in this layer impact the child's development by interacting with some structure in his/her microsystem. Parent workplace schedules or community-based family resources are examples. The child may not be directly involved at this level, but they do feel the positive or

negative force involved with the interaction with their own system. The main exosystem that indirectly influence the youths through their family include: school and peers, parents' workplace, family social networks and neighbourhood community contexts, local politics and industry. Exosystem can be empowering (example: a high quality child-care program that benefits the entire family) or they can be degrading (example: excessive stress at work impacts the entire family). Furthermore, absence from a system makes it no less powerful in a life. For example, many children realize the stress of their parent's workplaces without ever physically being in these places.

Macrosystem

The macrosystem is composed of cultural values, customs and laws. It refers to the overall patterns of ideology and organization that characterize a given society or social group. Macro systems can be used to describe the cultural or social context of various societal groups such as social classes, ethnic groups, or religious affiliates. This layer is the outermost layer in the child's environment. The effects of larger principles defined by the macrosystem have a cascading influence throughout the interactions of all other layers. The macrosystem influences what, how, when and where we carry out our relations. For example, a program like Women, Infants, and Children (WIC) may positively impact a young mother through health care, vitamins, and other educational resources. It may empower her life so that she, in turn, is more affective and caring with her new born. In this example, without an umbrella of beliefs, services, and support for families, children and their parents are open to great harm and deterioration. In a sense, the macrosytem that surrounds us helps us to hold together the many threads of our lives.

Chronosystem

The chronosystem encompasses the dimension of time as it relates to a child's environment. Elements within this system can be either external, such as the timing of a parent's death, or internal, such as the physiological changes that occur with the aging of a child. Family dynamics need to be framed in the historical context as they occur within each system. Specifically, the powerful influence that historical influences in the macrosystem have on how families can respond to different stressors. Bronfenbrenner suggests that, in many cases, families respond to different stressors within the societal parameters existent in their lives.

3.6 Components of the social-ecological model

There are a number of versions of the social-ecological model, which use slightly different classifications of environmental influences. For the purposes of Education the socialecological model made up of the individual, social environment, physical environment and policy components will be looked at.
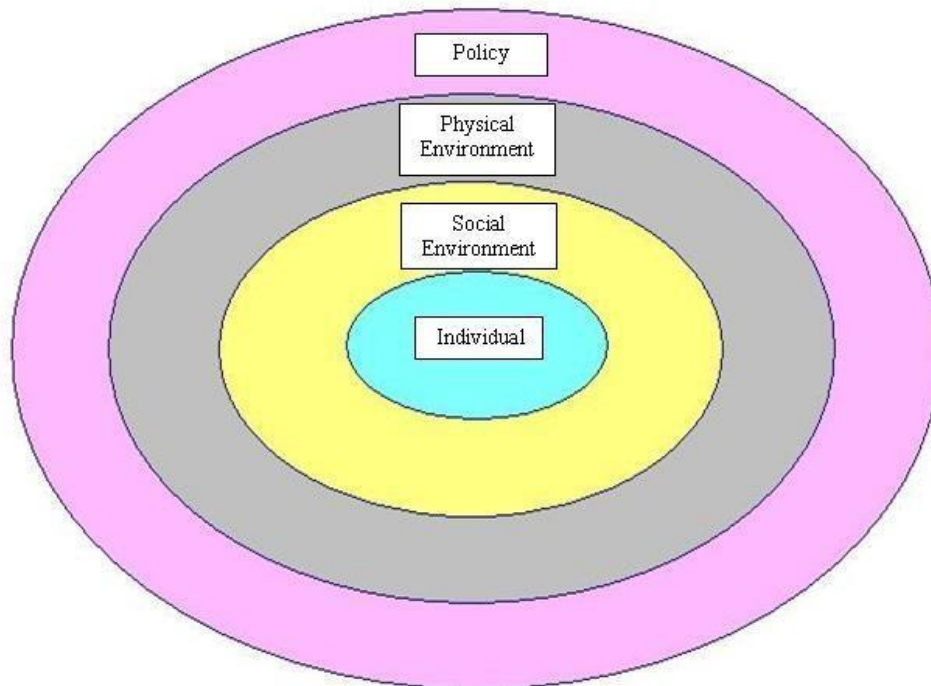
Figure 2: factors that influence behaviour. (Beck, 2004 Human Development)

Bronfenbrenner's work saw the influences on behaviour as a series of layers, where each layer had a resulting impact on the next level. He described these layers as being like a series of Russian dolls, where the innermost level represents the individual, which is then surrounded by differing levels of environmental influences (Bronfenbrenner, 1994). For example, an individual's social environment of family, friends and workplace are embedded within the physical environment of geography and community facilities, which is in turn embedded within the policy environment of different levels of government or governing bodies. All levels of the social-ecological model impact on the behaviour of the individual (Stokols, 1996, p. 291). The social-ecological model represents this concept as a series of overlapping circles, with each circle representing a different layer or component of the model.

3.7 The Social Ecological Model explained

Individual

The individual is at the centre of the social-ecological model. This level includes personal factors that increase or decrease the likelihood of an individual being physically active. Individual factors which influence physical activity participation include:

- knowledge, attitudes, behaviours, beliefs, perceived barriers, motivation, enjoyment
- skills (including fundamental motor skills and sports specific skills), abilities, disabilities or injuries
- age
- sex
- level of education
- socioeconomic status
- employment status ⬚ Self-efficacy.

Strategies which bring change at the individual level tend to focus on changing an individual's knowledge, attitudes, behaviour and skills. They include education and mentoring programs.

Social environment

Surrounding the individual in the social-ecological model is the social environment. The social environment comprises the relationships, the culture and the society with whom the individual interacts. The social environment has a significant influence on physical activity behaviour. For example, having someone such as a peer, family member or work colleague to be physically active will have an impact on behaviour.

The social environment includes:

- family, such as the influence of parental and sibling physical activity levels and family support
- spouse or partner
- peers
- institutions and organisations, such as schools, workplaces and community organisations
- access to social support networks versus social isolation
- influence of health and other professionals such as doctors, teachers and coaches
- community norms

- cultural background

Socioeconomic status of the community

Strategies which bring change at the social environment level include community education, support groups, peer programs, workplace incentives and social marketing campaigns. These are used to promote positive community attitudes and awareness to participation in physical education.

Physical environment

Education whether formal or informal takes place in physical environments. Physical environment includes the natural environment and the built (or man-made) environment. Physical environments are likely to influence the amount and type of Education, this influence can be positive or negative. For example, physical environments such as sports fields, bike paths, swimming pools and gymnasiums are designed for physical activity, while other physical environments such as workplaces, schools, family homes or theatres may discourage, restrict or prohibit physical activity. The physical environment includes:

- natural factors such as weather or geography
- availability and access to facilities such as parks, playgrounds, sporting grounds, gymnasiums, walking or cycling tracks
- aesthetics or perceived qualities of facilities or the natural environment
- safety such as crime rates or amount and speed of traffic
- community design such as connectivity of streets, density of housing or land use ☐ Public transport.

The built environment provides opportunities for intervention, such as the inclusion of walking or bicycle tracks and parks in new housing developments and ease of access to them. The natural environment has fewer opportunities for intervention; these tend to focus on overcoming barriers to physical activity within the natural environment.

Strategies focusing on the physical environment usually should be put in place before educational or community awareness initiatives are attempted. Sometimes educational initiatives encourage impossible or unrealistic behaviour. For example, media campaigns that encourage people to walk will be ineffective in communities where there are no or poorly maintained walking paths or where safety is an issue. In this scenario, education and

awareness programs are more likely to be effective when preceded by programs for the development of community facilities and promoting community safety (Sallis, 1998 p. 381).

Policy

This refers to legislation, regulatory or policy making actions that have the potential to affect education. These are often formal legal actions taken by local, state or federal governments but

3.8 Terminology

Microsystem: this is the child's immediate environment.

Mesosystem: to this interaction of two or more micro systems.

3.9 Activity

1. Explain how the microsystem can affect child development.
2. With examples differentiate between exo system and macro system.

3.10 Reflection

What do you think would happen the effect of the chromo system of the child's academic performance?

3.11 Summary

In this unit, you have learnt about how the micro-system, the meso-system, the exo-system and the chrono-system influence child development. Generally, you have learnt how the environment the child is brought up in can affect how a child can grow. In the next unit, we will introduce to you Jean Piaget, another interesting theory of cognitive development.

UNIT 4: PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

4.1 Introduction

During the past half century Swiss psychologist Jean Piaget devised a model describing how humans go about making sense of their world by gathering and organising information (Piaget, 1954, 1963, 1970a, 1970b). We will examine Piaget's ideas closely, because they will provide an explanation of the development of thinking from infancy to adulthood.

According to Piaget (1954), certain ways of thinking that are quite simple for an adult are not so simple for a child, for example, a child might have difficulty understanding that she is English but also a Londoner because she is unable to classify one concept (London) as a subset of another (England). There are other differences between adult and child thinking such as a child's concepts of time may be different from your own. Children may think, for example, that they will someday catch up to a sibling in age or they may confuse the past and the future.

4.2 Learning Outcomes

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

- state factors that influence cognitive development according to Piaget's theory
- define the following terms; (a) Adaptation.
  (b) Assimilation.
  (c) Accommodation.
  (d) Equilibration.
  (e) Disequilibrium.
  (f) Schemes.
- discuss four stages of cognitive development according to Piaget's theory.
- explain how you can apply Piaget's theory of cognitive development.

4.3 Time frame

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

4.4 Content

- factors that Influences cognitive development
- Assimilation
- Accommodation ☐ Equilibration
- Four stages of Cognitive development
- Some Limitations of Piaget's Theory
- Cognitive development and Culture

Influences on development

As you can see, cognitive development is much more than the addition of new facts and ideas to an existing store of information. According to Piaget, our thinking processes change radically, though slowly, from birth to maturity because we constantly strive to make sense of the world. How do we do this? Piaget identified four factors – biological maturation, activity, social experiences and equilibration – that interact to influence changes in thinking (Piaget, 1970a). Let's briefly examine the first three factors. We'll return to a discussion of equilibration in the next section.

One of the most important influences on the way we make sense of the world is *maturation,* the unfolding of the biological changes that are genetically programmed. Parents, caregivers and teachers have little impact on this aspect of cognitive development, except to be sure that the children get the nourishment and care they need to be healthy.

Activity is another influence. With physical maturation comes the increasing ability to act on the environment and learn from it. When a young child's coordination is reasonably developed, for example, the child can discover principles about balance by experimenting with a seesaw. Thus, as we act on the environment – as we explore, test, observe and eventually organise information – we are likely to alter our thinking processes at the same time.

As we develop, we are also interacting with the people around us. According to Piaget, our cognitive development is influenced by *social transmission*, or learning from others. Without social transmission, we would need to reinvent all the knowledge already offered

by our culture. The amount people can learn from social transmission varies according to their stage of cognitive development.

Maturation, activity and social transmission all work together to influence cognitive development. How do we respond to these influences?

Basic tendencies in thinking

As a result of his early research in biology, Piaget concluded that all species inherit two basic tendencies or 'invariant functions.' The first of these tendencies is towards organisation – the combining, arranging, recombining and rearranging of behaviours and thoughts into coherent systems. The second tendency is towards adjusting to the environment. **Organisation**

People are born with the tendency to organise their thinking processes into psychological structures. These psychological structures are our systems for understanding and interacting with the world. Simple structures are continually combined and coordinated to become more sophisticated and thus more effective. Very young infants, for example, can either look at an object or grasping at the same time. As they develop, however, infants organise these two separate behavioural structures into a coordinated higher – level structure of looking at, reaching for and grasping the object. They can, of course, still use each structure separately (Flavell, Miller and Miller, 2002; Miller, 2002).

Piaget gave a special name to these structures: *Schemes.* In his theory, schemes are the basic building blocks of thinking. They are organised systems of actions or thought that allow us to mentally represent or think about the objects and events in our world. Schemes can be very small and specific, for example, the sucking – through – a – straw scheme or the recognising – a – rose scheme. Or they can be larger and more general, for example, the drinking scheme or the categorising – plants – scheme. As a person's thinking processes become more organised and new schemes develop, behaviour also becomes more sophisticated and better suited to the environment.

Adaptation

In addition to the tendency to organise their psychological structures, people also inherit the tendency to adapt to their environment. Two basic processes are involved in adaptation: *assimilation* and *accommodation*.

Assimilation takes place when people use their existing schemes to make sense of events in their world. Assimilation involves trying to understand something new by fitting it into what we already knew. At times, we may have to distort the new information to make it fit. For example, the first time many children see a fox, they call it a 'doggy'. They try to match the new experience with an existing scheme for identifying animals.

Accommodation occurs when a person must change existing schemes to respond to a new situation. If data cannot be made to fit any existing schemes, then more appropriate structures must be developed. We adjust our thinking to fit the new information, instead of adjusting the information to fit our thinking. Children demonstrate accommodation when they add the scheme for recognising foxes to their other systems for identifying animals.

People adapt to their increasingly complex environments by using existing schemes whenever these schemes work (assimilation) and by modifying and adding to their schemes when something new is needed (accommodation). In fact, both processes are required most of the time. Even using an established pattern, such as sucking through a straw, requires some accommodation if the straw is of different size or length than the type you are used to. If you have tried drinking fruit juice from a carton, you know that you have to add a new skill to your sucking scheme – don't squeeze the carton or you will force the juice up through the straw, straight up into the air and into your lap. Whenever new experiences are assimilated into an existing scheme, the scheme is enlarged and changed somewhat, so assimilation involves some accommodation.

There are also times when neither assimilation nor accommodation is used. If people encounter something that is too unfamiliar, they may ignore it. Experience is filtered to fit the kind of thinking a person is doing at a given time. For example, if you overheat a conversation in a foreign language, you probably will not try to make sense of the exchange unless you have some knowledge of the language.

Equilibration

According to Piaget, organising, assimilating and accommodating can be viewed as a kind of complex balancing act. In his theory, the actual changes in thinking take place through the process of **equilibration –** the act of searching for a balance. Piaget as summed that people continually test the adequacy of their thinking processes in order to achieve that balance. Briefly, the process of equilibrium works like this: if we apply a particular scheme to an event or situation and the scheme works, then equilibrium exists. If the scheme does not produce a satisfying result, then disequilibrium exists, and we become uncomfortable. This motivates us to keep searching for a solution through assimilation and accommodation, and thus our thinking changes and moves ahead. Of course, the level of disequilibrium must be just right or optimal – too little and we aren't

Table 1: Piaget' stages of cognitive development (Devis, 2004, Child development)

Stage	Approximate age	Characteristics
Sensorimotor	0 – 2 years	Begins to make use of imitation, memory and thought.
		Begins to recognize that objects do not cease to exist when they are hidden.
		Moves from reflex actions to goal – directed activity.

Preoperational	2 – 7 years	Gradually develops use of language and ability to think in symbolic form.
		Able to think operations through logically in one direction.
		Has difficulties seeing another person's point of view.
Concrete Operational	7 – 11 years	
		Able to solve concrete (hands – on) problems in logical fashion.
		Understands laws of conservation and is able to classify and seriate.
		Understands reversibility.
Formal Operational	11 - adult	Able to solve abstract problems in logical fashion.
		Becomes more scientific in thinking.
		Develops concerns about social issues, identity.

interested in changing, too much and we may be too anxious or not ready to change. In order to maintain a comfortable balance between our schemes for understanding the world and the data the world provides we continually assimilate new information (using

existing schemes) and accommodate (or change) our thinking whenever unsuccessful attempts to assimilate result in disequilibrium.

4.5 Four stages of Cognitive development

Now we turn to the actual differences that Piaget hypothesised for children as they grow. Piaget believed that all people pass through the same four stages (sensorimotor, preoperational, concrete operational and formal operational) in exactly the same order. These stages are generally associated with specific ages, as shown below.

Source: From *Piaget's Theory of Cognitive and Affective Development* (5th ed.) by B. Wadsworth. Published by Allyn and Bacon, Boston, MA. Copyright © 1996 by Pearson Education but these are only general guidelines, not labels for all children of a certain age. Piaget person may show characteristics of one of one stage in one situation, but characteristics of a higher or lower stage in other situations. Therefore, knowing a learner's age is never a guarantee that you know how the child will think (Orlando and Machado, 1996).

Infancy: The Sensorimotor stage (birth to two years approximately)

The earliest period is called the *sensorimotor* stage, because the child's thinking involves seeing, hearing, moving, touching, tasting, and so on. During this period, infants develop *object permanence*, the understanding that objects to exist in the environment whether they perceive them or not. This is the beginning of the important ability to construct a mental representation. As most parents discover, before infants develop object permanence, it is relatively easy to take something away from them. The trick is to distract them and remove the object while they are not looking – 'out of sight, out of mind'. The older infant who searches for the ball that has rolled out of sight is indicating an understanding that objects still exists, but they do not have the memory skills to 'hold on' to the location of the object or the motor skills to coordinate a search (Baillargeon, 1999; Flavell, Miller and Miller, 2002).

A second major accomplishment in the sensorimotor period is the beginning of logical, goal directed action. Think of the familiar container toy for babies. It is usually clear plastic with a lid and contains several colourful items that can be emptied out and replaced. A six – month – old baby is likely to become frustrated trying to get to the toys inside. An older child who has mastered the basics of the sensorimeter stage will

probably be able to deal with the toy in an orderly fashion by building a 'container toy' scheme: (1) get the lid off, (2) turn the container upside down, (3) shake if the terms jam, and (4) watch the items fall. Separate lower – level schemes have been organised into a higher – level scheme to achieve a goal.

The child is soon able to reverse this action by refilling the container. Learning to reverse is a basis accomplishment of the sensorimeter stage. As well will soon see, however, learning to reverse thinking – that is learning to imagine the reverse of a sequence of actions – takes much longer.

The Early Childhood years: the Preoperational stage (two to seven years approximatey)

By the end of the sensorimeter stage, the child can use many action schemes. As long as these schemes remain tied to physical actions, however, they are of no use in recalling the past, keeping track of information, or planning. For this, children need what Piaget called *operation,* or actions that are carried out and reversed mentally rather than physically. At the *pre – operational* stage the child has not yet mastered these mental operations, but is moving towards mastery.

According to Piaget, the first type of thinking that is separate from action involves making action schemes symbolic. The ability to form and use symbols – words, gesture, signs, images, and so on – is thus a major accomplishment of the preoperational period and moves children closer to mastering the mental operations of the next stage. This ability to work with symbols, such as using the word 'horse' or a picture of a horse or even pretending to ride a horse to represent a real horse that is not actually present, is called the *Semiotic function.*

In fact, the child's earliest use of symbols is in pretending. Children who are not yet able to talk will often use action symbols – pretending to drink from an empty cup or touching a comb to their hair, showing that they know what each object is for. This behaviour also shows that their schemes are becoming more general and less tied to specific actions. The eating scheme, for example, may be used in playing house. During the preoperational stage, there is also rapid development of that very important symbol system, language.

Between the ages of two and four, most children enlarge their vocabulary from about 200 to 2,000 words.

As the child moves through the preoperational stage, the developing ability to think about objects in symbolic form remains somewhat limited to thinking in one direction only, or using *one – way logic.* It is very difficult for the child to 'think backwards' or imagine how to reverse the steps in a task. *Reversible thinking* is involved in many tasks that are difficult for the preoperational child, such as the conservation of matter.

Conservation is the principle that the amount or number of something remains the same even if the arrangement or appearance is changed, as long as nothing is added and nothing is taken away. You know that if you tear a piece of paper into several pieces, you will still have the same amount of paper. To prove this, you know that you can reverse the process by taping the pieces back together. A classic example of difficulty with conservation is found in the preoperational child's response to the following Piagetian task. Leah, a five year – old, is shown two identical glasses, both short and wide in shape. Both have exactly the same amount of coloured water in them. She agrees that the amounts are 'the same'. The experimenter then pours the water from one of the glasses into a taller, narrower glass and asks, 'Now, does one glass have more water, or are they the same?' Leah responds that the tall glass has more because 'it goes up more here' (she points to higher level on taller glass).

Piaget's explanation for Leah's answer is that she is focusing, or centring, attention on the dimension of height. She has difficulty considering more than one aspect of the situation at a time, or **decentring**. The preoperational child cannot understand that decreased diameter compensates for increased height, because this would require taking into account two dimensions at once. Thus, children at the preoperational stage have trouble freeing themselves from their own immediate perceptions of how the world appears.

This brings us to another important characteristic of the preoperational stage. Preoperational children, according to Piaget, have a tendency to be **egocentric**, to see the world and the experiences of others from their own viewpoint. The concept of egocentrism, as Piaget intended it, does not mean selfish; it simply means children often

assume that everyone else shares their feelings, reactions and perspectives. For example, if a little boy at this stage is afraid of dogs, he may assume that all children share this fear. Very young children centre on their own perceptions and on the situation appears to them.

This is one reason it is difficult for these children to understand that your right hand is not on the same side as theirs when you are facing them.

Egocentrism is also evident in the child's language. You may have seen young children happily talking about what they are doing even though no one is listening. This can happen when the child is alone or, even more often, in a group of children – each child talks enthusiastically, without any real interaction or conversation. Piaget called this the **collective monologue.**

Research has shown that young children are not totally egocentric in every situation, however. Children as young as two describe more details about a situation to a parent who was not there compared to the descriptions they give to a parent who experienced the situation with them, It follows then that young children do seem quite able to take the needs and different perspectives of others into account, at least in certain situations (Flavell, Miller and Miller, 2002). In fairness to young children, even adults can make assumptions that others feel or think as they do. For example, have you ever received a gift that the giver loved but was clearly inappropriate for you? It is likely that the 'three mountains task' used by Piaget to measure egocentrism in young children was inadequate (McDonald and Stuart – Hamilton, 2002). The focus on Practice gives ideas for working with preoperational thinkers.

Working with preoperational children

- Use concrete props and visual aids whenever possible
- Make instructions relatively short – not too many steps at once. Use actions as well as words.
- Help children develop their ability to see the world from someone else's point of view.
- Be sensitive to the possibility that learners may have different meanings for the same word or different words for the same meaning. Children may also expect everyone to understand words they have invented.

- Give children a great deal of hands – on practice with the skills that serve as building blocks for more complex skills such as reading comprehension or collaboration.

Middle Childhood: the Concrete – Operational Stage (seven to eleven years approximately)

Piaget coined the term *concrete operation* to describe this stage of 'hands – on' thinking. The basic characteristics of the stage are the recognition of the logical stability of the physical world, the realisation that elements can be changed or transformed and still conserve many of their original characteristics, and the understanding that these changes can be reversed.

According to Piaget, a learner's ability to solve conservation problems depends on an understanding of three basic aspects of reasoning: *identity, compensation* and *reversibility.* With a complete mastery of identity, the learner knows that if nothing is added or taken away, the material remains the same. With an understanding of compensation, the learner knows that an apparent change in one direction can be compensated for by a change in another direction. That is, if the glass is narrower, the liquid will rise higher in the glass. When an understanding of reversibility is gained, the learner can mentally cancel out the change that has been made. Leah apparently knew it was the same water (identity), but lacked compensation and reversibility, so she was moving towards conservation.

Another important operation at this stage is *classification.* Classification depends on a learner's abilities to focus on a single characteristic of objects in a set (e.g. colour) and group the objects according to that characteristic. More advanced classification at this stage involves recognising that one class fits into another. A city can be in a particular county or area and also in a particular country. As children apply this advanced classification to locations, they often become fascinated with 'complete' addresses such as Mr Lawrence Matthews, 349 Underwood Road, Allerton, Liverpool, Lancashire, England, United Kingdom, Northern Hemisphere, Earth, Solar System, Milky Way, and Universe.

Classification is also related to reversibility. The ability to reverse a process mentally now allows the concrete – operational child to see that there is more than one way to classify a group of objects. The learner understands, for example, that buttons can be classified by colour, and then reclassified by size or by the number of holes.

Seriation is the process of making an orderly arrangement from large to small or vice versa. This understanding of sequential relationships permits a learner to construct a logical series in which A < B < C (A is less than B is less than C), and so on. Unlike the preoperational child, the concrete – operational child can grasp the notion that B can be larger than A but still smaller than C.

With the abilities to handle operations such as conservation, classification and seriation, the learner at the concrete – operational stage has finally developed a complete and very logical system of thinking. This system of thinking, however, is still tied to physical reality, The logic is based on concrete situations that can be organised, classified or manipulated. Thus, children at this stage can imagine several different arrangements for the furniture in their rooms before they move any pieces. They do not have to solve the problem strictly through trial and error by actually making the arrangements. However, the concrete – operational child is not yet able to reason about hypothetical, abstract problems that involve the coordination of many factors at once. This kind of coordination is part of Piaget's next and final stage of cognitive development.

In any learning context, knowledge of concrete – operational thinking will be helpful (see the Focus on Practice below). In the early stages, the children are moving towards this logical system of thought. In the middle childhood years, it is in full flower, ready to be applied and extended by teachers and caregivers. Older learners and even adults still commonly use concrete operational thinking, especially in areas that are new or unfamiliar.

Working with concrete – operational children

- Continue to use concrete props and visual aids, especially when dealing with sophisticated material
- Continue to give learners a chance to manipulate and test objects
- Make sure presentations and readings are brief and well – organised

- Make readings 'real'
- Give opportunities to classify and group objects and ideas on increasingly complex levels
- Let learners manipulate objects
- Continue using teaching aids

For more ideas see http://chiron.valdosta.edu/whuitt/col/cogsys/piagtuse.html

Late childhood and adolescence: formal operations

Some learners remain at the concrete – operational stage throughout their school years, even throughout life. However, new experiences usually those that take place in school, eventually present most learners with problems that they cannot solve using concrete operations. What happens when a number of variables interact, as in a science experiment? Then a mental system for controlling sets of variables and working through a set of possibilities is needed. These are the abilities Piaget called *formal operations.*

At the level of formal operations, the focus of thinking can shift from what is to what might be. Situations do not have to be experienced to be imagined. Ask a young child how life would be different if people did not sleep, and the child might say, 'People do sleep!' In contrast, the adolescent who has mastered forma; operations can consider contrary – to – fact questions. In answering, the adolescent demonstrates the hallmark of formal operations *hypothetical – deductive reasoning.* The formal thinker can consider a hypothetical situation (people do not sleep) and reason deductively (from the general assumption to specific implications, such as longer working days, more money spent on energy and lighting, smaller houses without bedrooms or new entertainment industries). Formal operations also include inductive reasoning, or using specific observations to identify general principles. For example, the economist observes many specific changes in the stock market and attempts to identify general principles about economic cycles. Formal – operational thinkers can form hypothesis, set up mental experiments to test them, and isolate or control variables in order to complete a valid test of the hypotheses. This kind of reasoning is necessary for success in many advanced learning contexts (Meece, 2002).

The ability to consider abstract possibilities is critical for much of mathematics and science. Most mathematics is concerned with the hypothetical situations, assumptions and

givens: 'Let x = 10', or 'Assume $x^2 + y^2 = z^2$ ', or 'Given two sides and an adjacent angle...' Work in humanities and literature requires abstract thinking, too: 'What did David Lloyd George, the British prime minister, mean when he said of World War One, "This war, like the next war, is a war to end all wars"?', 'Identify some metaphors for hope and despair in Shakespeare's sonnets?', 'What symbols of old age does T. S. Eliot use in *The Waste Land?* ', 'How do animals symbolise human character traits in Aesop's fables?' The organised, scientific thinking of formal operations requires that learners systematically generate different possibilities for a given situation. For example, if asked, 'How many different shirt/trousers/jacket outfits can you make using three of each kind of clothing?' the child using formal operations can systematically identify the 27 possible combinations. A concrete thinker might name just a few combinations, using each piece of clothing only once. The underlying system of combinations is not yet available.

Another characteristic of this stage is *adolescent – egocentrism.* Unlike egocentric young children, adolescent do not deny that other people may have different perceptions and beliefs, the adolescents simply become very focused on their own ideas. They analyse their own beliefs and attitudes. This leads to what Elkind (1981) calls the sense of an imaginary audience – the feeling that everyone is watching. Thus, adolescents believe that others are analysing them. 'Everyone noticed that I wore this to/shirt twice this week.' Or 'The whole class thought my answer was stupid!' You can see that social blunders or imperfections in appearance can be devastating if 'everybody is watching.' Luckily, this feeling of being 'on stage' seems to peak in early adolescence by age 14 or 15, although in unfamiliar situations we all may feel our mistakes are being noticed.

The ability to think hypothetically, consider alternatives, identify all possible combinations and analyse one's own thinking has some interesting consequences for adolescents. Because they can think about worlds that do not exist, they often become interested in science fiction. Because they can reason from general principles to specific actions, they often are critical of people whose actions seem to contradict their principles. Adolescents can deduce the set of 'best' possibilities and imagine ideal worlds (or ideal parents and teachers, for that matter). This explains why many young people at this age develop interests in utopias, political causes and social issues. They want to design better worlds, and their thinking allows them to do so. Adolescents can also imagine many

possible futures for themselves and may try to decide which is best feelings about any of these ideals may be strong and idealistic.

Do we all reach the fourth stage?

Most psychologists agree that there is a level of thinking more sophisticated than concrete operations. But the question of how universal formal – operational thinking actually is, even among adults, is a matter of debate. The first three stages of Piaget's theory are forced on most people by physical realities. Objects really are permanent. The amount of water doesn't change when it is poured into another glass. Formal operations, however, are not so closely tied to the physical and using formal scientific reasoning – abilities that are valued and taught in literate cultures, particularly within educational settings, Even so, about 50% of undergraduate learners fail Piaget's formal operational tasks (Berk, 2005).

Piaget himself (1974) suggested that most adults may be able to use formal operational thought in only a few areas where they have the greatest experience or interest. Formal education fosters formal operational abilities in that subject but not necessarily in others (Lehman and Nisbett, 1990). So it is likely that many middle and late childhood learners will have trouble thinking hypothetically, especially when they are learning something new. Sometimes, children and young people find shortcuts for dealing with problems that are beyond their grasp, they may memorise formulae or lists of steps. These systems may be helpful for passing tests, but real understanding will take place only if learners are able to go beyond this superficial use of memorisation. The Focus on Practice below may help to support the development of formal operations with young people.

Helping young people to use formal operations

- Continue to use concrete – operational teaching strategies and materials
- Give learners the opportunity to explore many hypothetical questions
- Learners' opportunities to solve problems and reason scientifically
- Whenever possible, teach broad concepts, not just facts, using materials and ideas relevant to the young people's lives (Delpit, 1995)
- For more ideas about Formal operations, see
  http://chiron.valdosta.edu/whuitt/col/cogsys/piagtuse,html

4.6 Some Limitations of Piaget's Theory

Although most psychologists agree with Piaget's insightful descriptions of how children think, many disagree with his explanations of why thinking develops as it does.

The trouble with stages

Some psychologists have questioned the existence of four separate stages of thinking even though they agree that children do go through the changes that Piaget described (Millet, 2002). One problem with the stage model is lack of consistently in children's thinking. For example, children can conserve number (the number of blocks does not change when they are rearranged) a year or two before they can conserve weight (a ball of clay does not change when you flatten it). Why can't they use conservation consistently in every situation? In fairness, we should note that in his late work, even Piaget put less emphasis on stages of cognitive development and gave more attention to how thinking changes through equilibrium (Millet, 2002).

Another problem with the idea of separate stages is that the processes may be more continuous than may seem. For example, rather than appearing all at once, object permanence may progress gradually as children's memories develop. The longer you make the infants wait before searching – the longer you make them remember the object – the older they have to be to succeed. Siegler (1998) notes that change can be both continuous and discontinuous, as described by a branch of mathematics called *catastrophe theory*. Changes that appear suddenly, like the collapse of a bridge, are preceded by many slowly developing changes such as gradual, continuous corrosion of the mental structures. Similarly, gradually developing changes in children can lead to large changes in abilities that appear to be abrupt (Fischer ad Pare – Blagoev, 2000).

Underestimating Children's abilities

It now appears that Piaget underestimated the cognitive abilities of children, particularly younger ones. The problems he gave young children may have been too difficult and the directions too confusing. His subjects may have understood more than they could demonstrate when solving these problems. For example, work by Gelman and her colleagues (Gelman, 2000; Gelman and Cordes, 2001) show that preschool children know much more about the concept of number than Piaget thought, even if they sometimes make mistakes or get confused. As long as preschool children work with only three or

four objects at a time, they can tell that the number remains the same, even if the objects are spread far apart or clumped close together. In other words, we may be born with a greater store of cognitive tools than Piaget suggested. Some basic understandings, such as the permanence of objects or the sense of number, may be part of our evolutionary equipment, ready for use in our cognitive development (Geary and Bjorklund, 2000).

Piaget's theory does not explain how even young children can perform at an advanced level in certain areas where they have highly developed knowledge and expertise. An expert nine – year old chess player may think abstractly about chess moves, while a novice 20 – year – old player may have to resort to more concrete strategies to plan and remember moves (Sieger, 1998).

Cognitive development and Culture

One final criticism of Piaget's theory is that it overlooks the important effects of the

Child's cultural and social group. Children in Western cultures may master scientific thinking and formal operations because this is the kind of thinking required in western schools (Berk, 2005; Geary, 1998). Even concrete operations such as classification may develop differently in different cultures. For example, when individuals from the Kpelle people of Africa were asked to sort out 20 objects, they created groups that made sense to them – a hoe with a potato, a knife with an orange. The experimenter could not get the Kpelle to change their categories; they said this is how a wise man would do it. Finally the experimenter asked in desperation, 'Well, how would a fool do it?' Then the subjects promptly created the four neat classification piles the experimenter had expected – food, tools, and so on (Rogoff and Morelli, 1989).

There is another increasingly influential view of cognitive development. Proposed years ago by Lev Vygotsky and recently rediscovered, this theory ties cognitive development to culture.

4.7 Terminologies

1. Assimilation: takes place when people use their existing schemes to make sense of events in their world.

2. Equilibration: is the act of searching for the balance as one tries to understand his/her world,

3. Conservation: is the principle that the amount or number of something remains the even if the arrangement or appearance is changed as long as nothing is added and nothing is taken away.

4.8 Activity

1. What is the difference between assimilation and accommodation?
2. Briefly explain the achievements of all the four stages of cognitive development according to Jean Piaget.

4.9 Reflection

Why do you think the pre operational child has challenges in solving conservational problems?

4.10 Summary

In this unit, you have learnt that there are four stages of cognitive development that children go through. These are: sensory motor stage (0-2 years), preoperational stage (2-7 years), concrete operational (7-11 years) and the formal stage which is from 11 years to adult hood, you have learned children's achievement at each of these stages. You have also learnt about concepts such as decentring, ego centric, collective monologue and conservation, we hope that you understand these concepts, if not before you go to the next unit, please read more about them again.

UNIT 5: PSYCHOANALYTIC THEORIES

5.1 Introduction

The psychoanalytic theory for child development has been largely derived from the works of Sigmund Freud and Erik Erikson. This perspective emphasises the importance of early childhood experiences on later development of the child and gives importance to unconscious motivation.

5.2 Learning Outcomes

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

• discuss Sigmund Freud's psychosexual stages of human development.
• discuss educational application of Freud's psychosexual stages.

5.3 Time frame

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

5.4 Content

• Freud's Psychosexual Stages
• The Oral Stage
• The Anal Stage
• The Phallic Stage
• The Latency Stage
• The Genital Stage

5.5 Freud's Psychosexual Stages

Famous psychoanalyst, **Sigmund Freud**, described child development as a series of 'psychosexual stages.' His theory of psychosexual development describes how personality develops during childhood.

Freud believed that the way parents dealt with their children's basic sexual and aggressive desires would determine how their personalities developed and whether or not they would end up well – adjusted as adults. Freud described children as going through multiple stages of sexual development, which he labelled Oral, Anal, Phallic, Latency, and Genital. Freud believed that personality develops through these stages in which the pleasure – seeking energies of the id become focused on certain erogenous areas. This psychosexual energy, or libido, was described as the driving force behind behaviour. If these psychosexual stages are completed successfully, the result is a healthy personality. If certain issues are not resolved at the appropriate stage, *fixation* can occur. A fixation is a persistent focus on an earlier psychosexual stage. Until this conflict is resolved, the individual will remain "stuck" in this stage.

The Oral Stage

Age Range: Birth to 1 year

Erogenous Zone: Mouth

During the oral stage, the infant's primary source of interaction occurs through the mouth, so the rooting and sucking reflex is especially important. The mouth is vital for eating, and the infant derives pleasure from oral stimulation through gratifying activities such as tasting and sucking. Because the infant is entirely dependent upon caretakers (who are responsible for feeding the child), the infant also develops a sense of trust and comfort through this oral stimulation.

The primary conflict at this stage is the weaning process – the child must become less dependent upon caretakers. If fixation occurs at this stage, Freud believed the individual would have issues with dependency or aggression. Oral fixation can result in problems with drinking, eating, smoking, or nail biting.

The Anal Stage

Age Range: 1 to 3 years

Erogenous Zone: Bowel and Bladder Control

During the anal stage, Freud believed that the primary focus of the libido was on controlling bladder and bowel movements. The major conflict at this stage a toilet training – the child has to learn his or her bodily needs. Developing this control leads to a sense of accomplishment and independence.

According to Freud, success at this stage is dependent upon the way in which parents approach toilet training. Parents who utilize praise and rewards for using toilet at the appropriate time encourage positive outcomes and help children feel capable and productive. Freud believed that positive experiences during this stage served as the basis for people to become competent, productive and creative adults.

However, not all parents provide the support and encouragement that children need during this stage. Some parents' instead punish, ridicule or shame a child for accidents. According to Freud, inappropriate parental responses can result in negative outcomes. If parents take an approach that is too lenient, Freud suggested that an anal – expulsive personality could develop in which the individual has a messy, wasteful or destructive personality. If parents are too strict or begin toilet training too early, Freud believed that anal – retentive personality develops in which the individual is stringent, orderly, rigid and obsessive.

The Phallic Stage

Age Range: 3 to 6 years

Erogenous Zone: Genitals

During the phallic stage, the primary focus of the libido is on the genitals. At this stage, children also begin to discover the differences between males and females.

Freud also believed that boys begin to view their fathers as a rival for their mother's affections. The Oedipus complex describes these feelings of wanting to possess the mother and the desire to replace the father. However, the child also fears that he will be punished by the father for these feelings, a fear Freud termed *castration anxiety.*

The term *Electra complex* has been used t describe a similar set of feelings experienced by young girls. Freud, however, believed girls instead experience penis envy.

Eventually, the child begins to identify with the same – sex parent as a means of vicariously possessing the other parent. For girls, however, Freud believed that penis envy was never fully resolved and that all women remain somewhat fixated on this stage. Psychologists such as Karen Horney disputed this theory, calling it both inaccurate and demeaning to women. ***The Latency Stage***

Age Range: 6 to Puberty

Erogenous Zone: Sexual Feelings Are Inactive

During the latent period, the libido interests are suppressed. The development of the ego and superego contribute to this period of calm. The stage begins around the time that children enter into school and become more concerned with peer relationships, hobbies and other interests.

The latent period is a time of exploration in which the sexual energy is still present, but it is directed into other areas such as intellectual pursuits and social interactions. This stage is important in the development of social and communication skills and self – confidence.

The Genital Stage

Age Range: Puberty to Death

Erogenous Zone: Maturing Sexual Interest

During the final stage of psychosexual development, the individual develops a strong sexual interest in the opposite sex. This stage begins during puberty but lasts throughout the rest of a person's life.

Where in earlier stages the focus was solely on individual needs, interest in the welfare of others grow during this stage. If the other stages have been completed successfully, the individual should now be well – balanced, warm and caring. The goal of this stage is to establish balance between the various life areas.

Another part of Freud's theory focused on identifying the parts of consciousness. Freud thought that all babies are initially dominated by unconscious, instinctual and selfish urges for immediate gratification which he labelled *the Id*. As babies attempt and fail to

get all their whims met, they develop a more realistic appreciation of what is realistic and possible, which Freud called the "Ego." Over time, babies also learn about and come to internalise and represent their parents' values and rules. These internalised rules, which he called the "Super – Ego", are the basis for the developing child's conscience that struggles with the concepts of right and wrong and works with the Ego to control the immediate gratification urges of the Id.

By today's rigorous scientific standards, Freud's psychosexual theory is not considered to be very accurate. However, it is still important and influential today because it was the first stage development theory that gained real attention, many other theorists used it as a starting place.

5.6 Terminologies

1. Erogenous: is zone: is the centre of pressure during the first five years of life.

2. Oedipus complex: describes these feeling of wanting to possess the mother and the desire to replace the mother.

5.7 Activity

1. Explain how Sigmund Freud's theory can be applied in the classroom situation.

5.8 Reflection

Do you think Sigmund's arguments can be proven scientifically?

5.9 Summary

In this unit, you have learnt that Sigmund Freud came up with five psycho sexual stages namely oral, Anal, phallic latency and the Genital stage. You have also learnt how these stages shape human personality and behaviour in the next unit, we will introduce you to Erickson's theory of psycho social stages of human development.

UNIT 6: ERIKSON'STHEORY OF PSYCHOSEXUAL STAGES

6.1 Introduction

Erick Erikson was an American developmental psychologist and psychoanalyst. He believed that personality develops in a series of stages. In each stage, people experience a conflict that serves as a turning point in development. In Erikson's view, these conflicts are centred either developing a psychological quality or failing to develop that quality.

Each stage is characterised by a psychosocial crisis of two conflicting forces. If an individual does indeed successfully reconcile these forces (favouring the first mentioned attribute in the crisis), he or she emerges from the stage with the corresponding 'virtue' or quality.

Each stage builds upon the successful completion of earlier stages. Thus, the challenges of stages not successfully completed may be expected to reappear as problems in the future.

6.2 Learning Outcomes

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

- discuss Erikson's psychosocial stages of human development.
- explain how Erikson's psychosocial stages of human development can be applied in the classroom situation.
- compare Freud's psychosexual stages of human development and Erickson's psychosocial stages of human development.

6.3 Time frame

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

6.4 Content

- Psychosocial stages of human development
- Psychosocial Stage 1 – Trust vs. Mistrust
- Psychosocial Stage 2 – Autonomy vs. Shame and Doubt
- Psychosocial Stage 3: Initiative vs. Guilt

- Psychosocial Stage 4 – Industry vs. Inferiority
- Psychosocial Stage 5 – Identity vs. Confusion

- Psychosocial Stage 6: Intimacy vs. Isolation
- Psychosocial Stage 7: Generativity vs. Stagnation

- Psychosocial Stage 8 – Integrity vs. Despair

- Using Psychosocial Development in the Classroom

6.5 Psychosocial stages of human development

Psychosocial Stage 1 – Trust vs. Mistrust

The first stage of Erikson's theory of psychosocial development occurs between birth and one year of age and is the most fundamental stage in life. Here, the question that needs to be answered is – **Can I trust the people around me?**

Because an infant is utterly dependent, the development of **trust** is based on the dependability and quality of the child's caregivers. If a child successfully develops trust, he or she will feel secure in the world. Caregivers who are inconsistent, emotionally unavailable, or rejecting contribute to feelings of **mistrust** in the children they care for. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable. Later on, it can lead to feelings of frustration, suspicion, withdrawal, and a lack of confidence.

Of course, no child is going to develop a sense of 100 per cent doubt. Erikson believed that successful development was all about striking a balance between the two opposing sides. When this happens, children acquire **hope**, which Erikson described as openness to experience tempered by some wariness that danger may be present.

Psychosocial Stage 2 – Autonomy vs. Shame and Doubt

The second stage of Erikson's theory of psychosocial development takes place during early childhood and is focused on children developing a greater sense of personal control. The relevant question in this stage is - Can **I do things myself or am i reliant on the help of others?**

Erikson believed that toilet training was a vital part of this process. Learning to control one's bodily functions leads to a feeling of control and a sense of independence. Other

important events include gaining more control over food choices, toy preferences, and clothing selection.

Highly restrictive parents, however, are more likely to instil in the child a sense of doubt, and reluctance to attempt new challenges. If caregivers encourage self – sufficient behaviour, toddlers develop a sense of **autonomy –** a sense of being able to handle many problems on their own. But if caregivers demand too much soon, refuse to let children perform tasks of which they are capable, or ridicule early attempts at self – sufficiency; children may instead develop **shame and doubt** about their ability to handle problems.

Erikson believed that achieving a balance between autonomy and shame and doubt would lead to **will,** which is the belief that children can act with intention, within reason and limits.

Psychosocial Stage 3: Initiative vs. Guilt

Children face this stage at the age of 3 – 5 years. The relevant question in this stage, therefore, is **Am I good or bad?**

During the preschool years, children begin to assert their power and control over the world through directing play and other social interactions. Children need to begin asserting control and power over the environment by taking **initiative** by planning activities, accomplishing tasks and facing challenges. The development of courage and independence are what set pre – schoolers apart from other age groups.

Pre – schoolers are increasingly able to accomplish tasks on their own and can start new things. With this growing independence come many choices about activities to be pursued. Sometime children take on projects they can readily accomplish, but at other time they undertake projects beyond their capabilities or that interfere with other people's plans and activities. If parents and preschool teachers encourage and support children's efforts, while also helping them make realistic and appropriate choices, children develop initiative – independence in planning and undertaking activities. But if, instead, adults discourage the pursuit of independent activities or dismiss them as silly and bothersome, children develop **guilt a**bout their needs and desires. When an ideal balance of individual initiative and willingness to work with others is achieved, the ego quality known as **purpose** emerges.

Psychosocial Stage 4 – Industry vs. Inferiority

This stage covers the early school years from approximately age 5 to 11. At this age, children start recognising their special talents and continue to discover interests as their education improves. They may begin to choose to do more activities to pursue that interest, such as joining a sport if they know they have athletic ability, or joining the band if they are good at music. Through social interactions, children begin to develop a sense a pride in their accomplishments and abilities

Erikson viewed the elementary school years as critical for the development of self – confidence. Ideally, elementary school provides many opportunities for children to achieve the recognition of teachers, parents and peers by producing things.

If children are encouraged to make and do things and are praised for their accomplishments, they begin to demonstrate *industry* by being diligent, persevering at tasks until completed and putting work before pleasure. They develop a feeling of *competence* and belief in their skills. If children are instead ridiculed or punished for their efforts or if they find they are incapable of meeting their teachers' and parents' expectations, they develop feelings of *inferiority* about their capabilities. Those who receive little or no encouragement from parents, teachers, or peers will doubt their abilities to be successful, If not allowed to discover their own talents in their own time; they will develop a sense of lack of motivation, low self – esteem, and lethargy.

Psychosocial Stage 5 – Identity vs. Confusion

This stage occurs during adolescence between the ages of approximately 12 to 18. The existential question in this stage is – **Who am I?**

The adolescent is newly concerned with how they appear to others. As they make the transition from childhood to adulthood, teens may begin to feel confused or confused or insecure about themselves and how they fit in to society. As they seek to establish a sense of self, teens may experiment with different roles, activities and behaviours.

According to Erikson, this is important to the process of forming a strong identity and developing a sense of direction in life. Eventually, Erikson proposed, most adolescents achieve a sense of identity regarding whom they are and where their lives are headed.

Those who receive proper encouragement and refinement through personal exploration will emerge from this stage with a strong sense of self and a feeling of independence and control. Those who remain unsure of their beliefs and desires will be insecure and confused about themselves and the future.

Completing this stage successfully leads to **fidelity,** which Erikson described as an ability to live by society's standards and expectations.

Psychosocial Stage 6: Intimacy vs. Isolation

This stage covers the period of early adulthood (between the ages of approximately 19 and 40) when people are exploring personal relationships. During this period of time, the major conflict centres on forming intimate, loving relationships with other people. The question that needs to be answered is – **Will I be loved or Will I be alone?**

Erikson believed it was vital that people develop close, committed relationships with other people. Those who are successful at this step will form relationships that are committed and secure.

It is important to remember that each stage builds on skills learned in the previous stages. Erikson believed that a strong sense of personal identity was important for developing intimate relationships. Studies have demonstrated that those with poor sense of self tend to have less committed relationships and are more likely to suffer emotional **isolation**, loneliness, and depression.

Successful resolution of this stage results in the virtue known as **love.** It is marked by the ability to form lasting, meaningful relationships with other people.

Psychosocial Stage 7: Generativity vs. Stagnation

This stage takes place during middle adulthood between the ages of approximately 40 and 65. During this time, adults strive to create or nurture things that will outlast them; often by having children or contributing to positive changes that benefits other people. The question that drives people in this stage is – **How can I contribute to the world?** Contributing to society and doing things to benefit future generations are important needs at this stage of development.

Generativity refers to "making your mark" on the world through caring for others, creating things and accomplishing things that make the world a better place. *Stagnation*

refers to the failure to find a way to contribute. These individuals may feel disconnected or uninvolved with their community and with society as a whole.

Those who are successful during this phase will feel that they are contributing to the world by being active in their home and community. These individuals who fail to attain this skill will feel unproductive and uninvolved in the world.

Care is the virtue achieved when this stage is handled successfully. Being proud of your accomplishments, watching your children grow into adults, and developing a sense of unity with your life partner are important accomplishments of this stage.

Psychosocial Stage 8 – Integrity vs. Despair

This stage occurs during late adulthood form age 65 through the end of life. During this period of time, people reflect back on the life they have and come away with either a sense of fulfilment from a life well lived or a sense of regret and despair over a life misspent. The pertaining question is – **Did I live a meaningful life?**

Those who feel proud of their accomplishments will feel a sense of integrity. Successfully completing this phase means looking back with few regrets and a general feeling of satisfaction. These individuals will attain wisdom, even when confronting death. Those who feel proud of their accomplishments will feel a sense of integrity. Successfully completing this phase means looking back with few regrets and a general feeling of satisfaction. These individuals will attain wisdom, even when confronting death. This phase occurs during old age and is focused on reflecting back on life.

Those who are unsuccessful during this stage will feel that their life has been wasted and will experience many regrets. The individual will be left with feelings of bitterness and **despair.**

Those who feel proud of their accomplishments will feel a sense of **integrity.** Successfully completing this phase means looking back with few regrets and a general feeling of satisfaction. These individuals will attain **wisdom,** even when confronting death.

Using Psychosocial Development in the Classroom

"Teachers who apply psychosocial development in the classroom create an environment where each child feels appreciated and is comfortable with learning new things and building relationships with peers without fear" (Tamara , 2010, para. 1). Teaching Erikson's theory at the different grade levels is important to ensure that students will attain mastery of each stage in Erikson's theory without conflict. There are specific classroom activities that teachers can incorporate into their classroom during the three stages that include school age children. The activities listed below are just a few suggested examples that apply psychosocial development.

At the preschool level, teachers want to focus on developing a hardy personality. Classroom examples that can be incorporated at the Preschool level are as follows:

1. Find out what students are interested in and create projects that incorporate their area of interest.

2. Let the children be in charge of the learning process when participating in a classroom project. This will exhibit teacher appreciation for the areas of interest of the students as well as confidence in their ability.

3. Make sure to point out and praise students for good choices.

4. Offer continuous feedback on work that has been completed.

5. Do not ridicule or criticize students openly. Find a private place to talk with a child about a poor choice or behaviour. Help students formulate their own alternate choices by guiding them to a positive solution and outcome.

6. When children experiment they should not be punished for trying something that may turn out differently than the teacher planned.

7. Utilize physical activity to teach fairness and sportsmanship.

Teachers should focus on achievement and peer relationships at the elementary level. Classroom examples that can be incorporated at the Elementary level are as follows:

1. Create a list of classroom duties that needed to be completed on a scheduled bases. Ask students for their input when creating the list as well sas who will be in charge of what.

2. Discuss and post classroom rules. Make sure to include students in the decision making process when discussing rules.

3. Encourage students to think outside of their day-to-day routine by role planning different situations.

4. Let students know that striving for perfection is not as important as learning from mistakes. Teach them to hold their head high and move forward.

5. Encourage children to help students who may be having trouble socially and/or academically. Never allow any child to make fun of or bully another child.

6. Build confidence by recognizing success in what children do best.

7. Provide a variety of choices when making an assignment so that students can express themselves with a focus on their strengths.

8. Utilize physical activity to build social development and to help students appreciate their own abilities as well as the abilities of others.

During the middle and high school years, building identity and self-esteem should be part of a teacher's focus. Classroom examples that can be incorporated at the Middle School and High School level are as follows:

1. Treat all students equally. Do not show favouritism to a certain group of students based on gender, race, academic ability or socioeconomic status.

2. Incorporate guest speakers and curriculum activities from as many areas as possible so as to expose students to many career choices.

3. Encourage students to focus on their strengths and acknowledge them when they exhibit work that incorporates these strengths.

4. Encourage students to develop confidence by trying different approaches to solving problems.

5. Incorporate life skills into lesson planning to increase confidence and self-sufficiency.

6. Utilize physical activity to help relieve stress, negative feelings and improve moods.

6.6 Terminologies

1. Autonomy: this is the freedom children want to have as they are growing.

2. Stagnation: Refers to the failure to find a way to contribute.

6.7 Activity

1. Discuss how you can apply each of Erickson's eight stages of human development to education.

2. What are the similarities between Sigmund Freud's psychosexual theory of human development and Erickson's psychosocial theory of human development?

6. 8 Reflection

What crisis exist at the eighth stage of Erickson' psycho-social development theory?

6.9 Summary

In this unit you have learnt about Erickson's eight stages of child development. You have particularly learnt about crisis that arise at each stage and how such a crisis can affect human behaviour. It is hoped that by now you have a clear understanding of this theory especially how it relates to human behaviour and personality.

UNIT 7: Kohlberg's Theory of Development

7.1 Introduction

A psychologist named **Lawrence Kohlberg** modified and expanded upon Jean Piaget's work to form theory that explained how children develop moral reasoning. Kohlberg was not interested so much in the answer to the question but in the reasoning for each participant's decision. The responses were then classified into various stages of reasoning in his theory of moral development.

7.2 Learning Outcomes

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

- discuss Kohlberg' moral development theory.
- Apply Kohlberg' theory in real life situations.

7.3 Time frame

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

7.4 Content

- Level 1 Pre – conventional Morality
- Stage 1 – Obedience and Punishment
- Stage 2 – Individualism and Exchange
- Stage 3 –Interpersonal Relationships
- level 2 –Maintaining Social Order
- Stage 5 –Social Contract and Individual Rights ⬜ level 3 –Universal Principles

One of the dilemmas Kohlberg presented: "Heinz Steals the Drug"

"In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug.

The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000 which is half of what it cost. He told the druggist that his wife was dying and asked him sell it cheaper or let him pay later. But the druggist

said: "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife. Should the husband have done that?" (Kohlberg, 1963).

7.5 Level 1 Pre – conditional Morality

Stage 1 – Obedience and Punishment. The earliest stage of moral development is especially common in young children, but adults are also capable of expressing this type of reasoning. At this stage, children see rules as fixed and absolute. Obeying the rules is important because it is a means to avoid punishment.

Stage 2 – Individualism and Exchange. At this stage of moral development, children account for individual points of view and judge actions based on how they serve individual needs. In the Heinz dilemma, children argued that the best course of acting was the choice that best – served Heinz's needs. Reciprocity is possible at this point in moral development, but only if it serves one's own interests.

Stage 3 –Interpersonal Relationships. Often referred to as the "good boy – good girl" orientation, this stage of moral development is focused on living up to social expectations and roles. There is an emphasis on conformity, being "nice," and considering of how choices influence relationships.

Stage 4 –Maintaining Social Order. At this stage of moral development, people begin to consider society as a whole when making judgements. The focus is on maintaining law and order by following the rules, doing one's duty and respecting authority.

Stage 5 –Social Contract and Individual Rights. At this stage, people begin to account for the differing values, opinions, and beliefs of other people. Rules of law are important for maintaining a society, but members of the society should agree upon these standards.

Stage 6 –Universal Principles. Kohlberg's final level of moral reasoning is based upon universal ethical principles and abstract reasoning. At this stage, people follow these internalised principles of justice, even if they conflict with laws and rules.

How to Apply Kohlberg's Theory in the Classroom.

Lawrence Kohlberg's theory on moral development can be applied to the classroom where rules, standards, and consequences are concerned. The theory tracks an individual's level of moral reasoning by assigning him to one of six stages, where the first stage is a basic submission to authority and the last is universal ethics for all. As an educator, consider where your students' personal development lies in terms of Kohlberg's six stages. Then work toward achieving optimal moral character along the lines of Kohlberg's level six "Universal Principals" for a positive and constructive learning environment.

1. Give students the opportunity to help create a classroom code of conduct. In this way, they will become responsible for the rules that they set and follow them accordingly, rather than blindly agreeing to standards set by school administrators or other authorities. By creating classroom policy, students can advance from stage one submission to stage three where they are accountable within the small classroom community.

2. Allow for a written self-evaluation as part of any disciplinary consequence. It does not have to be lengthy, but it should provide the student with adequate time to review their own reasoning for misbehaviour and to come up with a solution for the future. This type of action relates to Kohlberg's fourth stage of morality, in which individuals do their part to maintain order by reflecting on the impact of their words and actions.

3. Plan group projects where students work together toward the understanding of curriculum instead of sitting back and listening to the teacher talk at them. Not only is this sure to get students more involved. But it places the responsibility of learning onto the students, forcing them to adhere to the classroom goal of educational enrichment as in Kohlberg's fifth morality stage on upholding a social contract.

    2. Make time for role play, whether it be related to the curriculum or used as a problem solving tool. By acting or seeing situations through the eyes of others, students gain a broader understanding of what is taking place. This helps them to make decisions based not on themselves, but on a commitment to the group. Similarly, they have advanced to Kohlberg's sixth stage, in which the needs of every person in society are worth considering. In a classroom, a brief skit or scenario can help students focus on making sure everyone is involved and engaged in learning.

7.6 Terminologies

1. Dilemma: Is a crisis people find themselves in.

2. Universal principles: Is the final level of reasoning based upon universal ethical principles and abstract reasoning.

7.7 Activity

1. Discuss six stages of Kohlberg' moral development theory.
2. Explain the major moral judgement of people who are at conventional moral development level.

7.8 Reflection

Why do you think adults who are expected to be at the conventional level of moral development at times think at the pre-conventional level?

7.9 Summary

In this unit, you have learnt that there are six stages of moral development and that at each stage the perception of what is right and wrong is different. We hope that you have also reflected on your behaviour especially in situations when you had to make a decision of what is wrong and right.

UNIT 8: VYGOTSKY SOCIAL – CULTURE PERSPECTIVE

8.1 Introduction

Psychologists today recognize that culture shapes cognitive development by determining what and how a child will learn about the world.

A major spokesperson for this social cultural theory (also called socio historic) was a Russian psychologist who died in 1934. Lev semenovich Vygotsk

Vygotsky's work began when he was studying learning and development to improve his own teaching.
He went on the write about language and thought, the psychology of art, learning and development.

His work was banned in Russia for many years because he referenced western psychologists. However, in the past 30 years, with the rediscovery of his work, vygotsky's ideas have become major influence in psychology and education. They have provided alternatives to many of Piaget's theory.

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

- discuss the following themes: cultural tools, the zone of proximal development and social sources of thinking.
- analyse the role of language and private speech in cognitive development.

8.3 Time frame

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

8.4 Content

- The Social Sources of Individual Thinking
- Cultural Tools and Cognitive Development
- The Role of Language and Private Speech
- Language and Cultural Diversity
- The Zone of Proximal Development
- Limitation of Vygotsky's Theory

- Teaching Strategies Based on Vygotsky's Theory

Vygotsky's believed that human activities take place in cultural settings and cannot be understood apart from these settings. One of his key ideas was that our specific mental structures and processes can be traced to our interaction with others. These social interactions are more than simple influences on cognitive development. They actually create our cognitive structures and thinking processes (Parisca, 1998).

In fact, Vygotsky conceptualized development as a transformation of socially shared activities into internalized processes (John Sterner and Mahan 1996:192) In this unit, we will examine three themes in Vygotsky's writing that explain how social processes form learning and thinking; the social sources of individual thinking; the role of cultural tools in learning and development especially the tool of language; and the zone of proximal development.

8.5 The Social Sources of Individual Thinking.

Vygotsky assumed that 'every function in a child's cultural development appears twice.

First, on the social level and later on the individual level

First between people (inter psychological) and them inside the child (intra psychological) in other words, higher mental processes first are **co-constructed** (a social process in which people interact and negotiate (usually verbally) to create an understanding or solve the problem. The final product is shaped by all participates.

During this shared activity between the child and another person, then the processes are internalized by the child and become part is the child's cognitive development. For example, children first use language in activities with others to regulate the behaviour of the others.

Consider This Example:

A six year – old has lost a toy and asks her father for help, the father asks her where she last saw the toy; the child says I cannot remember, the father then asks a number of questions did you have it in your room? outside? To each question the child answers no when the father said did you leave it in the car? She says I think so and goes to retrieve the toy.

In this case who remembered? The answer is really neither the father nor the daughter, but the two together. Remembering and problem solving were **co – constructed** between people in the interaction. However, the child may have internalized strategies to use next time something is lost. So like the strategy for finding the toy, higher function appear first between a child and a teacher before stay exist within the individual child, Kozulin, (2003).

8.6 Cultural Tools and Cognitive Development

Vygotsky emphasized the importance of the 'tools' that the culture provides to support thinking. He believed that all higher – order mental processes, such as reasoning and problem solving are mediated by (accomplished through and with the help of) psychological tools such as language, signs and symbols. Adults teach these tools to children during day to day activities and the children internalize them. Then the psychological tools can help the learners advance their own development (Karpov, 1998).

The process is something like this; as children engage in activities with adults or more capable peers, they exchange ideas and ways of thinking about or representing concepts – drawing maps, as a way to represent spaces and places. These co – created ideas are internalized by children. Thus, children's knowledge, ideas, attitudes and values develop through appropriating or 'taking for themselves' the ways of acting, and thinking provided by both their culture and other members of their groups. Vygotsky believed that cultural tools, real tools (computers, scales, rulers) and symbol systems (Numbers, language, internet, graphs) that allow people in society to communicate, think, solve problems and create knowledge). Cultural tools include **material things** (printing press, mobile phones, internet and abacuses and psychological tools such as (signs, and symbol systems such as numbers and mathematical systems, Braille and signs language, maps, works of art, codes and language. Play a very important role in cognitive development. These culture kit help children make sense of and learn about their world. In Vygotsky's theory language is the most important symbol system in the tool kit and it is the one that helps to fill the kit with other tools.

1. The Role of Language and Private Speech.

Language is critical for cognitive development. It provides a way to express

ideas and ask question, the categories and concepts for thinking, and the link

between

the past and the future.

2. Language and Cultural Diversity

In general, culture develop words for the concepts that are important for people,

Vygotsky believed that thinking depends on speech.

Private Speech

Children 'self – talk', which guides their thinking and action. Eventually, these
verbalizations are internalized as silent inner speech. Vygotsky believed that the
private speech plays an important role in cognitive development. The private speeches
also help children regulate their behaviour.

Because private speech helps learners to regulate their thinking, it makes sense to
allow and even encourage pupils to use private speech in school. Teachers insisting
on total silence when young children are working on difficult problems may make the
work even harder for them.

8.7 The Zone of Proximal Development

(Is a phase at which a child can master a task if given appropriate help and support)

According to Vygotsky, at any given point in development, there are certain problems
that a child is on the verge of being able to solve. The child just needs some structure
reminders, help with remembering details or steps, encouragement to keep trying and
so on. Some problems, of course are beyond a child's capability even if every step is
explained clearly. The zone of proximal development (ZPD) is the area between the
child's current development level, as determined by independent problem solving and
the level of development that the child could achieve through adult guidance or in
collaboration with more capable peers. This is the area where instruction can succeed,
because real learning is possible. Kathleen Berger (2006) called this area the 'magic
middle' somewhere between what the learner already knows and what the learner

isn't ready to learn. In ZOPAD he used **Scaffolding** 'helping a child step by step to solve a problem.'

8.8 Limitation of Vygotsky's Theory

Young children appear to figure much about the world before they have the chance to learn from either their culture or teachers (Schunk 2004)

Vygotsky did not detail the cognitive process underlying developmental changes, which cognitive process allow learners to engage in more advanced a independent participation in s consists of mostly general ideas.

8.9 Teaching Strategies Based on Vygotsky's Theory

Following are some ways that Vygotsky's theory can be incorporated in the classroom:

1. *Use the child's zone of proximal development in teaching*. Teaching should begin toward the zone's upper limit, where the child is able to reach the goal only through close collaboration with the instructor. With adequate continuing instruction and practice, the child organizes and masters the behavioural sequences required to perform the target skill. As the instruction continues, the performance transfers from teacher to child. The teacher gradually reduces the explanations, hints, and demonstrations until the student is able to perform the skill alone. Once the goal is achieved, it may become the foundation for the development of a new ZPD.

2. *Use scaffolding*. Look for opportunities to use scaffolding when children need help with self-initiated learning activities (Elicker, 1996). Also use scaffolding to help children move to a higher level of skill and knowledge. Offer just enough assistance. You might ask, "What can I do to help you?" Or simply observe the child's intentions and attempts, smoothly providing support when needed. When the child hesitates, offer encouragement.

And encourage the child to practice the skill. You may watch and appreciate the child's practice or offer support when the child forgets what to do.

3.   *Use more-skilled peers as teachers*. Remember that it is not just adults that Vygotsky believed are important in helping children learn important skills. Children also benefit from the support and guidance of more-skilled children.

4.   *Monitor and encourage children's use of private speech*. Be aware of the developmental change from externally talking to oneself when solving a problem during the preschool years to privately talking to oneself in the early elementary school years. In the elementary school years, encourage children to internalize and self-regulate their talk to themselves.

5.   *Assess the child's ZPD, not IQ*. Like Piaget, Vygotsky did not believe that formal, standardized tests are the best way to assess children's learning. Rather, Vygotsky argued that assessment should focus on determining the child's zone of proximal development. The skilled helper presents the child with tasks of varying difficulty to determine the best level at which to begin instruction. The ZPD is a measure of learning potential. IQ, also a measure of learning potential, emphasizes that intelligence is the property of the child. By contrast, ZPD emphasizes that learning is interpersonal. It is inappropriate to say that a child has a ZPD. Rather, a child shares a ZPD with a more skilled individual.

6.   *Transform the classroom with Vygotskian ideas*. What does the Vygotskian classroom look like? The Kamehameha Elementary Education Program (KEEP) is based on Vygotsky's theory (Tharp, 1994). The zone of proximal development is the key element of instruction in this program. Children might read a story and interpret its meaning. Many of the learning activities take place in small groups. All children spend at least 20 minutes each morning in an activity called "Center One." In this context, scaffolding is used to improve children's literacy skills. The instructor asks questions, responds to students' queries, and builds on the ideas that students generate. Thousands of low-income children have attended KEEP public schools in Hawaii, on an Arizona Navajo Indian reservation, and in Los Angeles. Compared with a control group of non-KEEP children, the KEEP children participate more actively in classroom discussion, are more attentive in class, and have higher reading achievement (Tharp &Gallimore, 1988).

Vygotsky did not detail the cognitive process underlying developmental changes, which cognitive process allow learners to engage in more advanced a independent participation in s consists of mostly general ideas.

8.10 Terminologies

1. Co-construction: Is a social process in which people interact and negotiate (usually verbally) to create understanding to solve a problem.
2. The zone of proximal development: Is a phase at which a child can master a task if given appropriate help and support.

8.11 Activity

1. Discuss the following themes as used by Vygotsky:
   (a) Cultural tools.
   (b) The zone of proximal development.
   (c) The social sources of thinking.

8.12 Reflection

Do you agree with Vygotsky that private speech enhances thinking?

8.13 Summary

In this unit you have learnt Vygotsky's three major themes namely; the social sources of thinking, the zone of proximal development and cultural tools. You have also learnt the importance of language especially the private speech in cognitive development. We will in the next unit introduce to language development.

UNIT 9: LANGUAGE DEVELOPMENT

9.1 Introduction

Speech and Language are tools that human beings use to communicate; ideas and emotions Cardwell Clark and Meldrum (1996:343) define Language as "a highly complex system of communication based on words which have meaning. These words can be strung together according to a set of grammatical rules and used to create an infinite number of sentences". Therefore;

9.2 Learning outcomes

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

- define Language.

- explain stages of Language Development.

- discuss causes of Language Delay in Children.

- explain Theories of Language Development.

- explain the Implication of Language to Teaching.

9.3 Time frame

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

9.4 Content

- Stages of Language Development
- Causes of Language Delay in some Children
- Some functions of Language
- Theories of Language Acquisition
- Behaviourist Theory
- The Nativist perspective
- Noam Chomsky
- The interactionist Perspective Theory

- Jerome Brunner's View On Language Acquisition

Definition

Language is a tool for communication. Slavin (1997) defines language "as vehicle, medium or channel used to communicate ideas, exchange facts and opinion, defuse or solve problems resulting from human interaction".

The American Linguist Leonard Bloomfield (1887-1949) said "the Language is influenced by three levels of responses", namely;

- Primary Response; actual use of the Language

- Secondary Response; views people have about Language

- Tertiary Response; terminologies used to express Language.

9.5 Stages of Language Development

Language is central to our nature as human beings. It is a social artefact (a tool). Language especially in its written form contains special powers, which are sometimes understood by the initiated and it controls objects, people and the super natural, Spencer J. (1820).

The most intensive period of speech and Language development for human beings is during the first three years of life, a period when the brain is developing and maturing. These skills appear to develop best in a world that is rich with sound and consistent exposure to the speech and language of others.

The beginning of communication occurs during the first few days of life, when the infant learns that a cry will bring food, comfort and companionship. At this stage communication is non-verbal. The new born also begins to recognise the important sounds of his/her environment. The sound of parents can be one important sound. As they grow, infants begin to sort out the speech sounds (phonemes) or building blocks that compose the words of their language. Research has shown that by six months of age, most children recognise basic sound of their native language.

As the speech mechanism (the jaw, lips and the tongue) mature an infant is able to make controlled sounds. This begins in the first few months of life with "cooing" a quiet pleasant repetitive vocalization.

By six months of age an infant usually "bubbles" or produces repetitive syllables such as," ba, ba, ba, or da, da, da". Bubbling soon turns into a type of nonsense speech (jargon) that often has a tone and cadence of human speech that does not contain real words.

By the end of their first year, most children have mastered the ability to say a few simple words. Children are most likely un aware of the meaning of their first words, but soon lean the power of these words as others respond to them.

By eighteen months of age, most children can say eight to ten words. By age two, most children put words together in crude sentences such as "more milk". This is called telegraphic stage, because children just use the key words to communicate. At age 3, 4 and 5 a child's vocabulary rapidly increases and he/ she begin to master the rules of their language. Children however, vary in their development of speech and language. There is however, a natural progression time for mastering the skills for each language. The milestones are identifiable skills that can serve as a guide to normal development. These milestones help teachers, doctors and parents to give extra help to children who delay to speak or to use language.

9.6 Causes of Language Delay in some Children

Noam Chomsky (1957), maintain that there are several factors that may cause delay in language acquisition among some children, and the following are some of them;

- Maturation delays (due to delay in development of the speech centre of the brain)

- Hearing impairment

- Brain damage

- By bilingualism (in which a child combines comprehension of two or more languages)

- Inadequate language stimulation

- Concentrating on developing skills other than language

- learning

9.7 Some functions of Language

Malinowski (1884-19420, maintain that the following are some of the uses of language;

- Emotional expression- (emotive Language)

- Social interaction-(social Language)

- To maintain rapport

- Control of reality

- Recording facts

- Expression of identity

9.8 Theories of Language Acquisition

Language is extremely important to human beings. We use language to communicate with one another, to express our emotions and to solve problems, because of the importance attached to this vital tool of human activity, numerous theories have been proposed to account for the normal development and its use

9.8.1 Behaviourist Theory

One of the earliest attempts to explain language acquisition came from learning theorist. B. F Skinner in his book verbal behaviour (1951). He regarded language acquisition as behaviour, like any other whose appearance and development could be accounted for by the basic principles of learning. According to the behaviourist or learning theorists, imitation, classical conditioning, observation and reinforcement are the mechanisms that explain the mean the children's acquisition of language, phonological, semantic, syntax and pragmatic.

The learning theorists argue that productive language is initially shaped through the selective reinforcement of the child's earliest vocalization. Although babies are born with a tendency to bubble. These early sounds are gradually shaped into meaningful language; by the way in which those around them respond to the sounds made.

Sounds which are not reinforced eventually extinguish; thus children come to acquire language through operant conditioning, e, g if an infant were bubbling blats out a sound resembling mama, the mother who is near pick up the baby and bags/ or kisses her. The child finds this reinforcing. Just to make sure the baby doesn't forget, the mother repeats mama a few more times. Inter spacing the repetitions with more kisses and hags. If on the other hand, the baby responds with meaningless bubbling she doesn't receive such a positive response from the mother.

Imitation can work with reinforcement e. g the mother says a word to the child, and then the baby repeats. Children understand language through a classical conditioning process as well. By endless repetitions in the presence of an object/ person, children come to associate the sound with the object or person.

Imitation plays a significant role in language acquisition. According to learning theories, as parents and other user of language label objects for children and speak syntactically correct sentences, they provide modes of competence and mature language use for young language learners. Children after all learn the phonology, syntax and conversational rules of a culture into which they are born. They must be influenced by the linguistic model in their environment.

Criticism of Behaviourist Language Acquisition

Noam Chomsky (1956), maintain the following as the weaknesses of behavioural language learning acquisition theory

- The theory fails to explain children's use of novel utterances (utterances they have never learnt through imitation) e g. I **goed** to town, I **runned** faster than you, I have two **foots.** Such kind of mistakes are s result of over generalisation

- Some evidence suggest that parents tend to respond to the truth in children utterances rather than grammatically incorrect statement e g. "I no like spinach", might be followed by the mother saying "I know", e g. "I am sleeping" when the child is awake. The mother can say "No you are not". Research has shown that parents are more concerned about the factual correctness of their children's speech than their grammatical correctness.

    Reinforcement, of correct language their fore, does not happen as often as the learning theorists suggest

- Critics point out that the quality of adult speech is such that a child cannot easily learn it.

- Another important limitation of the learning perspective is the assumption that the child plays no important role when acquiring language. It has been

observed that even in the earliest stages of learning language; children often experiment with the use of language regardless of the reaction of their care givers. They point to objects that their parents label for them and create utterances that others have.

There is evidence that reinforcement, imitation and classical conditioning contribute to the early language learning, at the same time only a few research cling to the behaviourist perspectives these days. If one goes by behaviourist perspective.

Adults would have to engage in intensive language tutoring, a physically impossible task even for the most conscious parents.

Nevertheless, the ideas of Skinner and other behaviourists should not be dismissed entirely. It has showed that adults responsiveness support language leaning.

9.8.2 The Nativist perspective

Noam Chomsky

Syntactic Structure

Linguist Noam Chomsky's 1957 book "syntactic structures" along with his critical review of skinners theory first convinced the scientific community that the children assume much responsibility for their own language learning, in contrast to behaviourist. Chomsky argued that children have internal mental structures that give them the capacity to interpret and generate language. His alternative theory is a Nativist account that regards language as a biologically based uniquely human accomplishment focusing on children's grammatical achievements, Chomsky stated that the rules for sentence construction are too complex to be directly taught or discovered by cognitively immature young children. Instead he argued that humans are born with a language acquisition device (LAD). This is a biologically based innate mechanism for picking up language. All it needs is to be triggered by verbal inputs from the environment. The LAD permits children as soon as they have acquired sufficient vocabulary to combine words into grammatically consistent novel utterances and to understand the meaning of sentences they hear.

How can a single LAD account for children's mastering of language around the word?

According to Chomsky (1926) within the LAD is a universally grammar which is a built-in store house of rules that apply to all human languages. Young children use this knowledge to decipher grammatical categories and relationships in any language to which they are exposed.

Support to Chomsky's Theory

1. There is evidence that children are biologically primed to acquire language ie. have innate disposition to acquire language. New born babies are very sensitive to speech sound and prefer to listen to the human voice.

2. Children the world over, reach the major milestones of language development in a similar sequence. This regularity of development fits with Chomsky's idea of a biologically determined language programme. E g. Chomsky among the language development universals he discusses is that, the onset of language regularly occurs between the second and the third year of life. Another universal Chomsky has discussed is that early vocalization such as cooing and bubbling do not represent practice or learning requirements for later language acquisition.

The following are the challenges to Chomsky's theory according to Berk (1997).

1. Researchers have had great difficulty identifying a single underlying grammar for all languages-the universal grammar

2. Chomsky's theory does not give a great deal of attention to semantic development; many consider this to be a major deficiency.

3. Careful study of children's word combination reveal that they often don't follow adult grammatical rules

4. It is rather difficult to make statements about the possible LAD. No one has verified or disapproved that the brain actually contains this special language device

5. Children do not acquire language as quickly as Nativist theories suggest, their progress in mastering many sentence construction is not immediate but steady and gradual. This suggests that more learning and discovery are involved in language acquisition than Chomsky assumed.

9.8.3 The interactionist Perspective Theory

According to Berk (1997) new theories of language acquisition have arisen in recent years. They emphasize the interaction between inner deposition and environmental input and have replaced the dichotomy that grew out of the Skinner / Chomsky debate. Several interactionist models exist and virtually all of them stress the social context of language learning. An active child who is well endowed for acquiring language observes and engages in social exchange with others. Out of this experience, the child gradually discovers the functions and regularities of language. According to the interactionist perspective native innate capacity- a strong desire to interact with others and a rich linguistic and social environment combine to assist children in building a communicative system. Although all interactionists refer to the child as an active communicative being, debate continues over the precise nature of children's innate abilities. Some accept the modified view of Chomsky's position that children are pre-wired to make sense of the language. Other theorists are impressed by the remarkable cognitive capacities of infants and pre-scholars. They believe children make sense of their complex language environment by applying powerful analytical tools of a general cognitive kind rather than ones that are specifically tuned to language

9.8.4 Jerome Brunner's View On Language Acquisition

According to Brunner, children acquire language through the interaction of the language acquisition support system(LASS), and something similar to Chomsky's idea of LAD, therefore, LAD+LASS= Language Acquisition in children.

The most basic fundamental component of LASS is that it provides young language learners with a chance to use language to communicate. LASS support language acquisition through the following components:

- Pre-linguistic pragmatic training

- Formatting

- Motherless

- Expansions and recasts

Together these LASS components combine to create a special learning environment which supports young language learners as they make the transition from pre-linguistic to linguistic communication.

Lass and The Opportunity to Communicate

It's very rare for human beings to fail to acquire language. When such a failure occurs, the common cause is the absence of communicative interaction between language users and the language learners, e g autistic children are described as antisocial, they shun physical and emotional contact with others as infants. They fail to attend when their parents speak to them because of this, many parents with such children suspect that they have a heavy problem. Although they hear language spoken around them. They do not learn language unless they undergo a special therapy. For all children, including the autistic ones, language acquisition take place through social interaction and when that is not present, language is not present either.

Further evidence has shown that language development has social interaction as a pre-linguist comes from children who fail to develop language because they are raised in total isolation

Prelinguistic Pragmatic learning

A child understanding of pragmatics is far advanced of all other areas throughout infancy. They know e g that vocalization is an effective and appropriate way to get someone's attention and that pointing appropriately is an effective way to shifting someone's attention. They also know about the role that turn talking and eye contact play in sustaining social interactions

Formatting

Jerome Brunner uses the format to refer to common interpersonal contexts in which children can learn the pragmatic of language, such as   parent child games that involve activities such as pointing, looking, vocalizing, tickling or object sharing. These formats are parent child interaction involving separate but reversible roles. A parent child tickling game qualifies as a format because a parent and a child can swap or exchange the role of a giver and receiver of

tickles. Vocalizing games have the same structure in that a parent and a child swap the role of "talker" and listener.

In the pre-linguistic and early linguistic environments of most formats offer special support for the language learners. In addition to the training the formats offer the pragmatic skills. The language that adults use in the formats seems to offer a beginner's course in the meaning and language.

However, Brunner readily agrees that format games provide no explanation as to how children acquire the rules of grammar. But these games make us aware of the considerable role that adults can play in supplying missing support or scaffold (support)

Uses of Expansions and the Recasts

Expansions and recasts both offer children mini lessons in aspects of language that they do not yet use. The lesson from an expansion is on how to transform telegraphic speech into conventional speech, e g a child says where shoes? The parent might say where is the shoes? Recast also involves some repetition of what a child had said, but to be a recast rather than an expansion, either new information must be added or the form of the utterances must be changed. if a child for example say house mummy, the mother responds by saying it is a big house isn't it? The mother has added the new information big and also changed the information into a question.

9.8.5 Stages of Language development as presented by Slavin, 1997.

The following are the stages of Language development according to Slavin (1997)

Birth -12 months 1st stage.

  Undifferentiated crying during the first weeks. Differentiated crying e g. when, wet, hungry,1-2 weeks 3rd - 4th week on wards there is spontaneous cooing, vowel like sounds. 2nd -3rd month there are bubbling sounds where consonants like sound are constantly repeated, bubbling reaches its peak at 8 months and gives way to vocables. This develops into echolalia (I e echoing, mimicking and imitating. At about 9 months, the child can point at people to show that they have receptive language.

12-24 months 2ⁿᵈ stage

☐ Holophrases or holophrastic stage, these are single words which represent events or sentences that are accompanied with facial expressions. Associating objects with people. Analytic stage, two words utterances (duos) e g baby cry, mama walk. Verbal stimulation in the environment accelerates acquisition of true words.(language development)

24-36 months 3ʳᵈ stage

Through reinforcement the child starts to speak the language of the community in which it is brought up. And this is the final stage of language development.

9.8.7 Implication for Teaching

Teacher is the model as the child learns the language from him / her; children learn the language according to the way it is spoken. The time spent talking to the child or talking in his presence is important for his language acquisition. Since language is none instinctive it must be acquired with the help of the people who know it well. Language being symbolic, the teachers have to ensure that learners understand what the word symbols represent

9.9 Terminology

1. Language acquisition device: (LAD) this is a biologically based innate mechanism for picking up language.

9.10 Activity

1. With examples explain how language is acquired, and how teachers can effectively improve language acquisition among toddlers.

9.11 Reflection

1. What do you think could be some of the causes of language delay in children?

9.12 Summary

In this unit, you have learnt about the following aspect of language: Stages of language development, causes of language delay in some children, some functions of language and theories of language acquisition.

UNIT 10: CHILD PLAY AND COGNITIVE DEVELOPMENT
10.1Introduction

Although it is simple to compile a list of play activities, it is much more difficult to define play. Scales, et al., (1991) called play "that absorbing activity in which healthy young

children participate with enthusiasm and abandon" (p. 15). Csikszentmihalyi (1981) described play as "a subset of life..., an arrangement in which one can practice behavior without dreading its consequences" (p. 14). Garvey (1977) gave a useful description of play for teachers when she defined play as an activity which is: 1) positively valued by the player; 2) self-motivated; 3) freely chosen; 4) engaging; and 5) which "has certain systematic relations to what is not play" (p. 5). These characteristics are important for teachers to remember because imposing adult values, requirements, or motivations on children's activities may change the very nature of play.

According to Webster's Desk Dictionary of the English Language, the word play has 34 different meanings. In terms of young children and play, the following definitions from Webster's are useful:

light, brisk, or changing movement (e.g., to pretend you're a butterfly) to act or imitate the part of a person or character (e.g., to play house) to employ a piece of equipment (e.g., to play blocks) exercise or activity for amusement or recreation (e.g., to play tag) fun or jest, as opposed to seriousness (e.g., to play peek-a-boo or sing a silly song) the action of a game (e.g., to play duck-duck-goose)

10.2 learning Outcomes;

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

 define the term learning.

• analyse different types of play.

• 0discuss the relationship between play and cognitive development.t discuss theories of play.

10.3 Time frame

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

10.4 Content

• Play and Cognitive Development
• Play-Indoors and Out

• Parten's Five Types of Play
• How Much Should Children Play
• The Teacher's Role

10.5 Why Is Play Important?

According to Fromberg and Gullo (1992), play enhances language development, social competence, creativity, imagination, and thinking skills. Frost (1992) concurred, stating that "play is the chief vehicle for the development of imagination and intelligence, language, social skills, and perceptual-motor abilities in infants and young children" (p. 48).

Garvey (1977) states that play is most common during childhood when children's knowledge of self, comprehension of verbal and non-verbal communication, and understanding of the physical and social worlds are expanding dramatically.

Fromberg (1990) claims that play is the "ultimate integrator of human experience" (p. 223). This means that when children play, they draw upon their past experiences-things they have done, seen others do, read about, or seen on television-and they use these experiences to build games, play scenarios, and engage in activities.

Children use fine and gross motor skills in their play. They react to each other socially. They think about what they are doing or going to do. They use language to talk to each other or to themselves and they very often respond emotionally to the play activity. The integration of these different types of behaviors is key to the cognitive development of young children. According to Rogers and Sawyer (1988), "until at least the age of nine, children's cognitive structures function best in this unified mode" (p. 58). Because children's play draws upon all of these behaviors, it is a very effective vehicle for learning.

10.6 Play and Cognitive Development

The relationship between play and cognitive development is described differently in the two theories of cognitive development which dominate early childhood education-Piaget's and Vygotsky's.

Piaget (1962) defined play as assimilation, or the child's efforts to make environmental stimuli match his or her own concepts. Piagetian theory holds that play, in and of itself, does not necessarily result in the formation of new cognitive structures. Piaget claimed that play was just for pleasure, and while it allowed children to practice things they had previously learned, it did not necessarily result in the learning of new things. In other words, play reflects what the child has already learned but does necessarily teach the child anything new. In this view, play is seen as a "process reflective of emerging symbolic development, but contributing little to it" (Johnsen & Christie, 1986, p. 51).

In contrast, Vygotskian theory states that play actually facilitates cognitive development. Children not only practice what they already know-they also learn new things. In discussing

Vygotsky's theory, Vandenberg (1986) remarks that "play not so much reflects thought (as Piaget suggests) as it creates thought" (p. 21).

Observations of children at play yield examples to support both Piagetian and Vygotskian theories of play. A child who puts on a raincoat and a firefighter's hat and rushes to rescue his teddy bear from the pretend flames in his play house is practicing what he has previously learned about fire fighters. This supports Piaget's theory. On the other hand, a child in the block centre who announces to his teacher, "Look! When I put these two square blocks together, I get a rectangle!" has constructed new knowledge through her play. This supports Vygotsky's theory. Whether children are practicing what they have learned in other settings or are constructing new knowledge, it is clear that play has a valuable role in the early childhood classroom. **10.7 Play-Indoors and Out**

Early childhood teachers have long recognized the value of play in programmes for young children. Unfortunately, teachers often fail to take advantage of the opportunities play provides for observing children's development and learning. Through such observations teachers can learn about children's social interactions, cognitive and language abilities, motor skills, and emotional development.

Frost (1992) recommends that observing children at play be a daily responsibility for early childhood professionals. Regular observations provide teachers with assessment information for identifying children with special needs, planning future play experiences, evaluating play materials, determining areas of strength and weakness for individual children, planning curriculum for individual children, reporting to parents, and checking on a child's on-going progress. The increased use of authentic assessment strategies is making observations of children's play more commonplace in early childhood classrooms.

Hymes (1981) recommends that children have two classrooms—one indoors and one outdoors. The outdoor play environment should be used as an extension of the indoor classroom. It should be a learning environment as carefully planned as the indoor activity centers and should encourage motor and social skills as well as help children refine existing cognitive structures and construct new ones. Used in this way, the outdoor play environment provides a basis for observational assessments in all areas of development.

Fox (1993) researched the practicality of observing young children's cognitive development during outdoor play. Her observations of four- and five-year-old children during outdoor play found examples of addition and subtraction, shape identification, patterning, one-to-one correspondence, number sense, sequencing of events, use of ordinal numbers, knowledge of

prepositions, and identification of final and initial consonants. Fox's outdoor observations also found multiple examples of problem-solving, creative thinking, social competence, language use, and gross and fine motor skills. Although outdoor observations do not replace classroom assessment, they can provide valuable information for teachers of young children. As Fox stated, "These observations can be performed unobtrusively, without intruding upon the children's activities and without placing children in a stressful testing situation" (p. 131).

10.8 Parten's Five Types of Play

Play for young children assumes many different forms. Mildred Parten (1932) was one of the early researchers studying children at play. She focused on the social interactions between children during play activities. Parten's categories of play are not hierarchical. Depending on the circumstances, children may engage in any of the different types of play. Parten does note, however, that in her research with two- to five-year-olds, "participation in the most social types of groups occurs most frequently among the older children" (p. 259). Onlooker behaviour—Playing passively by watching or conversing with other children engaged in play activities.

Solitary independent—Playing by oneself.

Parallel—Playing, even in the middle of a group, while remaining engrossed in one's own activity. Children playing parallel to each other sometimes use each other's toys, but always maintain their independence.

Associative—When children share materials and talk to each other, but do not coordinate play objectives or interests.

Cooperative—When children organize themselves into roles with specific goals in mind (e.g., to assign the roles of doctor, nurse, and patient and play hospital).

10.9 How Much Should Children Play?

Indoors and outdoors, children need large blocks of time for play. According to Christie and Wardle (1992), short play periods may require children to abandon their group dramatizations or constructive play just when they begin to get involved. When this happens a number of times, children may give up on more sophisticated forms of play and settle for less advanced forms that can be completed in short periods of time. Shorter play periods reduce both the amount and the maturity of children's play, and many important benefits of play, such as persistence, negotiation, problem-solving, planning, and cooperation are lost. Large blocks of time (30 to 60 minutes, or longer) should be scheduled for indoor and outdoor play periods.

Christie and Wardle remind teachers that extra play time does not result in children becoming bored. Instead, it prompts children to become involved in more complex, more productive play activities.

10.10 The Teacher's Role

The early childhood teacher is the facilitator of play in the classroom. The teacher facilitates play by providing appropriate indoor and outdoor play environments. Safety is, of course, the primary concern. Age and developmental levels must be carefully considered in the design and selection of materials. Guidelines for selecting safe and appropriate equipment for outdoor play environments are available through the U.S. Consumer Product Safety Commission's Handbook for Public Playground Safety and the Playground Safety Manual by Jambor and Palmer (1991). Similar guidelines are also available for indoor settings (Torelli & Durrett, 1996; Caples, 1996; Ard & Pitts, 1990). Once appropriate environments and materials are in place, regular safety checks and maintenance are needed to ensure that the equipment is sound and safe for continued play.

Teachers also facilitate play by working with children to develop rules for safe indoor and outdoor play. Discussion about the appropriate use of materials, the safe number of participants on each piece of equipment, taking turns, sharing, and cleaning up provides the children with information to begin their play activities. These discussions need to be ongoing because some children may need frequent reminders about rules and because new situations may arise (e.g., new equipment).

By providing play materials related to thematic instruction, early childhood teachers can establish links between the children's indoor and outdoor play and their program's curriculum. Thematic props for dramatic play can be placed in the dramatic play center or stored in prop boxes and taken outside to extend the dramatic play to a new setting. An art center in the outdoor play environment may encourage children to explore the possibilities of using leaves, twigs, pebbles, and sand in their three-dimensional art productions. Painting easels and water tables may also be moved outside periodically for children's use during outdoor play periods. Finally, a collection of books stored in a wagon to be taken outside during play time may offer some children a needed alternative to more active play.

As facilitators of children's play, teachers should closely observe children during play periods not only for assessment purposes, as stated earlier, but also to facilitate appropriate social interactions and motor behaviours. It is important that children be the decision-makers during play, choosing what and where to play, choosing roles for each player, and choosing how

play will proceed. Occasionally, however, some children will need adult assistance in joining a play group, modifying behavior, or negotiating a disagreement. Careful observation will help the teacher to decide when to offer assistance and what form that assistance should take.

Conclusion

Although play is a difficult concept to define, it is very easy to recognize. Children actively involved in play may be engaged in a variety of activities, independently, with a partner, or in a group. Because play is closely tied to the cognitive, socio-emotional, and motor development of young children, it is an important part of developmentally appropriate early childhood programs.

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10.11 Terminologies

1. Solitary independent play: this is where a child plays by oneself(alone).
2. Associative play: Is when children share materials and talk to each other, but do not coordinate play objectives or interest.

10.12 Activities

1. Discuss why play is important to children in general.
2. Explain Partens's Five Types of Play.

10.13 Reflection

From the types of plays you have studied, which one do you think encourages cognitive development more?

10.14 Summary

In this unit, you have learnt about the following types of play; parallel, associative, cooperative and solitary independent play. We hope you now understand how play promotes cognitive development of learners.

UNIT 11: INFANCY PHYSICAL SOCIAL AND EMOTIONAL DEVELOPMENT

11.1 Introduction

Infants need to learn how to move and to use their bodies to perform various tasks, a process better known as motor development. Initially, babies' movements are simply the uncontrolled, reflexive movements they are born with. Over time, they learn to move their body parts voluntarily to perform both gross (large) and fine (small) motor skills. In general, babies begin developing motor skills from the centre of the body outward and from head to tail. They learn to control their head and neck before they learn to manoeuvre their arms; they learn to manoeuvre their arms before they learn to manipulate their fingers. Babies learn to move their torso before they learn how to move their arms and legs.

11.2 Learning Outcomes;

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

- discuss physical development during infancy stage.
- explain social and emotional development of infants.

11.3 Time frame

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

11.4 Content

- Emotional Development of Infants and Toddlers
- Social-Emotional Developmental Milestones
- Supporting All Infants and Toddlers

As babies learn skills and tasks, they will build new skills on top of old skills. It is important to remember that each child is unique. There is a general sequence of milestones or developmental markers that children achieve, but each child will progress through them at different rates, ages, and sequences. This unit will list ages at which children reach certain milestones. It's important to remember that these are only estimates; children attain or achieve them at a wide and healthy range of ages.

When babies are born, they are equipped with a set of reflexes, or automatic actions. Some reflexes help them perform basic tasks, such as breathing freely and drinking milk, while other reflexes seem to have no real purpose. All of these reflexes can help doctors assess

babies for any neurological problems at birth and as they grow. As infants mature in the first few months of life and begin developing the ability to voluntarily move and use their bodies, most of these reflexes gradually and naturally fade away. This unit will review seven of the most prominent reflexes babies have: sucking, head turning, rooting, grasping, stepping, Moro response, and tonic neck.

The sucking reflex allows babies to drink milk and nourish themselves in the first days of life. This is a permanent ability, but as babies grow, they can control when they drink. Another permanent and life-supporting reflex is head turning. This reflex allows a baby to turn his head if something (a blanket, pillow, or stuffed animal) is blocking his airflow. Another reflex that also helps babies survive is the rooting reflex. When babies root, they may nuzzle their face and mouth into the caregiver's chest or shoulder. This may help them find a food source, such as their mother's breast; this helps the baby communicate to caregivers that they are hungry and ready to eat. Rooting disappears around 3 weeks of age.

The rest of the reflexes have less survival value but are still notable. For the first 3 to 4 months, babies have an amazing grasping ability and reflex. They will grasp anything placed in their palm and hold it with amazing strength for their size; some infants in the first weeks of life can support their entire body weight through that grasp. While this reflex may not have any survival function in modern times, it does help babies bond with caregivers and family in the first weeks of life. Similarly, for the first two months, babies will "step" with their legs if they are held vertically with their feet touching a surface. Even though this reflex disappears months before babies begin walking purposefully, experts believe stepping helps infants learn how their legs work and can be used. The Moro response is another reflex that is present during the first 6 months of life, but doesn't seem to have a purpose in modern life. A baby will arch her back, flail out, and then curl up if she feels as though she is being dropped. The final reflex this unit will mention is the tonic neck. During the first 4 months, when babies lie awake on their backs with their heads facing to one side, they will extend the arm on the side of their body that they're facing and flex the other arm at an angle, in a position that resembles a fencing pose. This reflex may help prepare them for voluntary reaching later in their development.

11.5 Emotional Development of Infants and Toddlers

Emotional well-being during the early years has a powerful impact on social relationships.

Children who are emotionally healthy are better able to establish and maintain positive relationships with adults as well as with peers. Social-emotional development is essential to a young child's sense of well-being. Their first relationships help shape who they are, who they become, and their understanding of the world. The important people in young children's lives help lay the foundation for a range of social-emotional skills such as:

- Self-regulation
- Empathy
- Turn-taking and sharing
- Positive relationships with adults and peers

11.6 Social-Emotional Milestones

Through early relationships with nurturing and responsive adults, infants and toddlers learn how to be in relationships, how to get their needs and wants met, and how to identify and regulate emotions. Since these skills develop together, this area of development is referred to as social-emotional development.

Below is a chart that highlights how infants and toddlers develop social-emotional skills at different ages. Keep in mind that individual differences exist when it comes to the precise age at which infants and toddlers meet these milestones. Milestones are not checklists with which to judge children's development. Rather, they provide a guide for when to expect certain skills or behaviors to emerge in young children so you are prepared to meet their changing needs. Think of milestones as guidelines to help you understand and identify typical patterns of growth and development in infants and toddlers. You can continue to use these milestones to help meet the needs of the young children in your care. Although the skills highlighted in the chart develop in a predictable sequence over the first three years of life, each infant and toddler is unique. Your goal is to help *all* infants and toddlers in your family child care setting grow and learn to their potential.

11.7 Social-Emotional Developmental Milestones

6 months

- Knows familiar faces and begins to know if someone is a stranger
- Likes to play with others, especially parents or guardians

- Responds to other people's emotions and often seems happy
- Likes to look at self in mirror

12 months

- Is shy or nervous with strangers
- Cries when Mom or Dad leaves
- Has favorite things and people
- Shows fear in some situations
- Hands you a book when he or she wants to hear a story
- Repeats sounds and actions to get attention
- Puts out arm or leg to help with dressing
- Plays games such as peekaboo and pat-a-cake

18 months

- Likes to hand things to others as play
- May have temper tantrums
- May be afraid of strangers
- Shows affection to familiar people
- Plays simple pretend, such as feeding a doll
- May cling to caregivers in new situations
- Points to show others something is interesting
- Explores alone but with a parent or guardian close by

24 months

- Copies others, especially adults and older children
- Gets excited when with other children
- Shows more and more independence
- Shows defiant behavior (doing what she or he has been told not to do)
- Plays mainly beside other children, but is beginning to include other children, such as in chase games

36 months

- Copies adults and friends

- Shows affection for friends without prompting

- Takes turns in games

- Shows concern for a crying friend

- Understands the idea of "mine" and "his" or "hers"

- Shows a wide range of emotions

- Separates easily from Mom, Dad, or guardian

- May get upset with major changes in routine

- Dresses and undresses self

It is helpful to remember that expectations about social-emotional milestones are driven by cultural values and preferences. Adults share their cultural values and beliefs with children through daily interactions. Ideas, beliefs and expectations about child development are just some of the ways cultures are unique. Becoming aware of and respecting these differences can help you better understand families' experiences that help shape the infants and toddlers in your care.

11.8 Social-Emotional Development and Other Areas of Development

As we gain more understanding about brain growth and young children's development, we continue to learn about the ways adult caregivers can be supportive and most effective in helping children develop and learn. This growing understanding also includes how adult caregivers can help children develop social-emotional skills. Through nurturing and trusting relationships, infants and toddlers learn about the world. Their brains mature through interactions, and they can learn that the world is safe. Through responsive caregiving from adults, they learn how to form relationships, communicate, respond to challenges, and recognize, experience, and regulate their emotions.

When infants and toddlers feel safe and alert, they are more likely to observe, explore, play, interact, and experiment with people and objects. These experiences lead young children to learn and remember new things. This foundation for learning depends greatly on the quality of infants' and toddlers' early environments and relationships. Infants and toddlers are working toward the development of social-emotional competence.

11.9 Understanding and Supporting the Social-Emotional Development of Infants and Toddlers

Now that you have read the milestone chart, let's revisit the definition of social-emotional development according to the organization Zero to Three:

Within the context of one's family, community and cultural background, social-emotional health is the child's developing capacity to form secure relationships, experience and regulate emotions, and explore and learn.

Take a closer look at the pieces highlighted within this definition to identify additional ways to understand and support the social-emotional development of the infants and toddlers in your care.

Birth to 3 months:

- The first three months are a time all about helping an infant learn to feel safe, comfortable, secure, and curious about his or her world. *"Your smile and gentle touch help me to feel safe and happy."*
- When caregivers respond to an infant's cues with comfort and care, infants develop trust. *"Your soothing voice and touch helps me to feel safe, secure, and loved."*
- Infants use sounds, facial expressions, and body movements to tell caregivers what they need and how they are feeling. *"I am learning how to tell you what I need. Sometimes I look away when I need a break. I yawn sometimes when I am feeling tired. Thank you for watching and getting to know me."* **3 to 6 months:**

- The infant is active, responsive, and increasingly in control of his or her body. *"I stretch my arms toward you when I want you to pick me up and hold me gently."*
- Infant offers smiles and communicates with a gaze and basic vocalizations. *"I'm smiling to let you know I am ready to communicate."*
- Sense of security and well-being are totally dependent upon relationships with important caregivers.
- Emphasis is on routine and exploration—showing caregivers what they like and dislike, and how they prefer to sleep, eat, and play. *"I'm beginning to notice daily routines and the things we do together. When you turn the lights down, I know that it is time for sleep."*

6 to 9 months:

- Moving and exploring is the goal – infants become eager explorers who are thrilled to discover that they can make things happen.
- Infants are learning to solve problems. *"When a toy drops, I look to see where it went. I expect you will help me to get it back. I then try it again to see if I can make the same thing happen again."*
- An infant is beginning to understand that people still exist even when they are out of sight. *"I realize that my mommy is about to leave me. I will protest in hopes that she stays. Being separated from her is hard for me."* **9 to 12 months:**

- Infants are enjoying increased independence. *"Please stay calm even when I demand to do things on my own. It's hard work for me to learn and figure out all of these new things and sometimes I get frustrated, but I want to keep trying."*
- Infants can understand more than they can verbally communicate.
- Infants enjoy doing things over and over again. *"Watch me practice and figure out how things work! Repetition is also helping me build my memory!"*
- Infants take action with a goal in mind. *"When I crawl away from you quickly, I am not trying to upset you. I am having fun and do not want my diaper changed right now. This is how I take control of my world and let you know how I am feeling. Please talk to me and give me time to transition from my activity, and let me know that when we're done I can go back to what I was doing."* **12 to 18 months:**

- Infants and toddlers are watching others and imitate what they see. *"I have been watching and am able to use things the way they are supposed to be used. Watch me talk on this toy telephone!"*
- Infants and toddlers are using skills to explore and discover the boundaries of what they can do. *"I may get frustrated when you try to feed me and I want to do it on my own."*

- Infants and toddlers are beginning to understand feelings of self and others. *"My feelings can be hard for me to handle. I may become frustrated and have tantrums. I need your help to calm down."*

18 to 24 months:

- Toddlers work hard to be in control, explore the boundaries of their experiences, and engage in problem solving. *"I am beginning to sort things. Notice how I put my train cars in one place and all of my other cars in another."*
- They are increasingly aware of themselves as separate from others and are becoming more enthusiastic about playing with peers.
- They are starting to show negative behaviors (hitting, biting, kicking) in response to frustration. *"I understand, 'No,' but cannot control my feelings and actions. Please be patient and help me when I get frustrated."* **24 to 36 months:**

- Toddlers are using language to express thoughts and feelings. *"When you started to put the blocks away too soon, I yelled, 'That's not right!' I wanted to make a path for the cows before we put things away."*
- Toddlers are using enhanced thinking skills to solve problems. *"I am getting really good at playing pretend. I can act out my own stories and use a bottle to feed my teddy bear. Sometimes, I feel scared because I am not certain yet what is real and what is pretend."*
- Toddlers take pride in their accomplishments, such as, pouring milk.

11.9 Supporting All Infants and Toddlers

Every child is born with his or her own unique way of approaching the world. This is called *temperament*. Some young children, for example, are constantly on the move while others prefer to sit and watch the world around them. Some young children enjoy new experiences and meeting new people while others are slower to warm up in new situations.

Rothbart (1989) defines temperament as the individual personality differences in infants and young children. As Murphy and Moon (2010) describe in *Babies and Their Senses*, "infants and young children vary greatly in their interest in different sensory areas, in the intensity of their attention to sensory stimuli, and in their sensitivity to feelings of comfort and

discomfort, familiarity and strangeness, and the emotional context in which sensory experiences occur."

Infants are born with a unique temperament. There is no right or wrong, good or bad temperament. By understanding temperament, you can continue to use what you know about infants and toddlers to encourage their strengths and support their needs. In the Apply section, you will review more information about temperament and consider what it means in your role as a responsive caregiver.

No matter how well you understand temperament and are attuned and responsive, there will be times when an infant or toddler in your care may not seem to be developing socially and emotionally. Some infants and toddlers may experience social or emotional difficulties. These difficulties may be related to inborn (nature) or environmental (nurture) influences. The caregiving strategies in this lesson apply and relate to all children; however, some children may require an additional level of support.

Each infant and toddler has a unique pattern of growth. In your daily interactions with the babies and toddlers in your care, you observe each young child's particular strengths and possible areas of need. Your observation of each individual child's development is part of your ongoing routine, and it helps you to recognize and celebrate infants' and toddlers' accomplishments. It also helps you to identify red flags—some aspect of the infant's or toddler's development that is not in line with the expected age range.

The following general strategies can help you care for infants and toddlers who experience social and emotional difficulties. Think about ways to maintain physical closeness and to offer gentle touch to help struggling infants and toddlers maintain a sense of control. You should always talk with a child's parents to learn about any changes in home or other routines. You may recommend that parents contact their health-care provider and ask about completing a developmental screening for their child to identify any possible developmental delays. Stay informed about any additional community resources and specialists who may offer additional support to the family or to you.

- Observe the infant's or toddler's cues and responses to environmental stimuli. Think about ways to limit noise level, for example, or visual stimuli.
- Look for patterns of increased frustration or irritability in the infant or toddler during particular routines or times of day.

- Think about ways to maintain physical closeness and to offer gentle touch to help struggling infants and toddlers maintain a sense of control.

11.10 Terminologies

1. Reflexes: Is an involuntary and nearly instantaneous movement to respond to a stimulus.
2. Neurological problem: This is a disorder of the central and peripheral nervous system (disease of the brain, spine and the nerves)

11.11 Activity

1. Explain social, emotional and physical developments that take place during the infancy stage of development.

11.12 Reflection

What do you think is the importance of supporting the social-emotional development of infants and toddlers?

11.13 Summary

In this unit, you have learnt about major changes that take place during the infancy stage. The main changes discussed are physical, social and emotional changes. You have also learnt about the role of adults' in helping lay the foundation for a social-emotional skill. Such as: Self-regulation, empathy, turn-taking and sharing and positive relationships with adults and peers. The unit has also presented, social- emotional milestones infants are expected to go through.

UNIT12: EARLY CHILDHOOD PHYSICAL AND EMOTIONAL DEVELOPMENT

12.1 Introduction

Preschool age is basically identified as year three to six. In psychology this age group categorize as "early childhood". This early childhood stage is more imperative in the child development and their learning procedure. That's why the concept of preschool has come to play.

12.2 Learning Outcomes

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

- discuss physical development during early childhood stage.
- explain social and emotional development at the early childhood stage.

12.3 Time frame

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

12.4 Content

- Early childhood development
- Behavioural development
- Psychosocial development Cognitive development
- Spatial Representation
- Language development
- Physical environment and early childhood development

Pre-schoolers are always on the move, exploring their world with excitement, curiosity, and an apparently endless source of energy. The capacity of learning in this stage is enormous. They learn and develop from each experience, association, and adventure that they meet. Having the enough space and opportunity to discover objects and playing environments helps preschool child to develop their imagination and help the motor, language, cognitive, and psychosocial skills that are necessary for his future development.

There are significant physical changes that happen in this stage, their height increases by two inches and weight increases by five pounds per year. Female children are comparatively bigger than male children. But there are individual changes in their appearance. The growing

rate of human brain very high in this stage. At the age of five is completed, 90% of adult brain is already grown.

Nutrition is very important in this stage but food demand is very low for preschool child. Their demand is totally focus on intellectual curiosity and social skills. Their pattern is different than adults. For an example: They tend to eat others food, ask more food at others houses but they don't eat them at their own home.

There are some common behavioural patterns can be identified in this early childhood. They speak, suddenly scream and walk while sleep. It is not a problem in behaviour but a normal condition. And this is comparatively high in male children. It depends on intellectual development and the nature of social skills.

Enuresis condition can be seen in pre-schoolers. It is not a disease, but it depends on psychological matters such as unlimited pressure, fear in mind, family and parental conflicts and feeling of unsecure. But they come to an end with the maturity. They use mostly soft toys as transitional objects especially when go to the sleep, because their feeling of security is translated to that object.

Early childhood stage is beautiful and mysterious than all the other developmental stages of a human, so the development of this stage of a human is important to know.

12.5 Early childhood development

Early childhood development is belonging to child psychology field. It is centric concept. and it can be illustrated with various perspectives. There are three main development types.

Growth

Growth is mainly considered as physical development. It is a growth of external factors like height and weight, and growth of internal organs. In one hand it is a primary growth and comparatively it is a basic process. It is a quantitative concept and physiological. It is already programmed in genes.

Development

Development is a qualitative secondary concept and more complicated. Language development, cognitive, emotion, personality, culture is belongs to this category. This

development is more psychological and various social and psychological factors affect to this and more social interaction is needed.

Maturity

This is a qualitative growth, more complicated and a cultural factor. Maturity means children who are belong to some society, parameters of achievable skills and targets in each age stages according to that society and that child has achieved those parameters or not will be judge the maturity. These parameters vary in society to society. So the maturity of children in two societies will be not similar. The maturity can be varying from person to person, family to family in a same society.

Early childhood development can be discussed under five developmental areas. Those are identified as; Motor development, Behavioural development, Psychosocial development, Cognitive development, Language development and Motor development.

As a child grows, the nervous system turns into more mature. When this happens, the child becomes capable of performing more and more complex actions. The rate at these motor skills come out is sometimes a worry for parents whether or not their children are developing these skills at a normal rate. As mentioned above these rates may differ somewhat. However, almost all children begin to show these motor skills at a quite consistent rate unless some type of disability is present.

There are two types of motor skills: Gross motor skills engage the larger muscles with the arms and legs. Events involving gross motor skills include running, walking, sense of balance and coordination. When assessing gross motor skills, the factors that specialists look at contain strength, movement, muscle tone, quality and the variety of movement.

Fine motor skills engage the smaller muscles in fingers, eyes, toes, and other parts. The events that involving fine motor skills tend to be more complicated, such as writing, drawing, grasping objects, waving, tossing and catching.

Although the preschool child is able to Run, jump, and to climb steps, he has no perfect balance to complete some movement. By sensitive motor activities the child can touch fine spun things, pick things as plates, and cup handles etc by two fingers. Motor coordination is good as the child can obey to the commands. The child can play with building blocks, can tie their shoes, keep some object in another place, handle their fingers so he can get his meal

alone, they can stand in one leg but can't jump in one leg and they stabilize his hands in this stage. That is called handinance.

12.6 Behavioural development

Behavioural theories of early childhood development focus on how the environmental interaction of a child influences behaviour and are supported upon the theories of theorists such as John B. Watson, Ivan Pavlov and B. F. Skinner. These theories deal only with visible behaviours of children. Development is considered as an outcome of rewards, stimuli, punishments and reinforcement. But this theory varies significantly from other child development theories as it provides no consideration to internal thoughts or feelings. Instead, it focuses only on how experience shapes who they are.

12.7 Psychosocial development

Most significant thing in this period is the growth of "self-concept". That is the understanding and image of a child about himself. The child begins to separate himself from others. Child can make a self-description but it is not a self-general description. Egocentrism come forward in every speech. But have no ability to say what type of person is he.

Emotions are social friendly, empathetic, love and sympathetic and good volunteers. According to theories of Sigmund Freud in early childhood, the satisfaction migrate anal stage to phallic stage. They accomplish their satisfaction by attaching the sexual shapes. Gender difference is identifying in this stage.

Erikson's theory of psychosocial development takes place through early childhood and is focused on children developing a greater sense of personal control.

Like Freud, Erikson believed that toilet training was a very important part of this procedure. However, Erikson's reasoning was quite different than that of Freud's. Erikson believes that educating to control one's body functions guides to a feeling of control and independence. Other significant actions include gaining more organize over food selection, toy choices, and clothing selection. Children who successfully complete this stage feel safe and confident, and who do not are left with a feeling of insufficiency and self-doubt.

Throughout the preschool years, children start to declare their authority and control over the world during play and other social interactions. Children who are successful in this stage feel talented and clever to guide others. Those who fail are left with guilty feeling and self- doubt.

12.8 Cognitive development

According to Paget's developmental theory, this stage is identified as preoperational stage. Age 2 – 4 symbolic activity stage and age 4 – 6 mental activity stage.

In symbolic activity age they have thought but it is symbolical. Symbols are essential to think and identify colours. They can work with colours and shapes but not with letters. In this stage they are so clever to imitate. They imitate by collecting symbols. For an example if child is imitating his father, he wears his shoes, cloths and bag etc.

In mental activity stage the preschool child attempts to understand the world realistically. By constantly questioning his realistically thinking is developed. Answers should be given as he understands and it is not advisable to answer lies. The intelligent child always question about things. Sometimes they speak alone, that is a quality of intelligence.

Language is the most flexible way of mental representation. Piaget believed that sensorimotor activity provides the foundation for language, just imitation and make-believe play.

Make-believe play increases dramatically throughout early childhood. Piaget believed that by pretending, young children practice and build up newly acquired representational methods. Make-believe play regularly becomes less self-centred. Socio-dramatic play is the makebelieve play with peers that first come into sight around age 2 1/2 and increases rapidly until 4 to 5 years.

Pre-schoolers who spend extra time at socio-dramatic play are higher in common intellectual development and seen as more socially capable. Recent research shows that children who have exhibit more complex socio-dramatic play, are advanced in psychological representation, and are friendlier with peers.

Spatial Representation

Spatial understanding improves fast over the third year of life. Children realize that a spatial symbol locates for a specific condition of affairs in actual world. Providing children with lots

of opportunities to study about the purpose of varied symbols, like picture books, maps, models, and drawings, improves spatial representation.

Egocentrism and animism is more important factors come up with cognitive development in early childhood. Egocentrism means build up a self-cantered philosophy. They draw me, my mother, and my home likewise a world that built up around him. They draw their own image in bigger scale. Sharing and caring must be trained after age of 03.

Animism means the belief of that every objects have live qualities, like feelings, thoughts, and intention. So they punish if they hit, teach to dolls talk with objects like trees, furniture, toys, moon, sky etc.

Language development

By the age of 6, a child will have quick achievement of vocabulary with words about 10,000. Rapid mapping is connecting a new word with a fundamental concept after only a brief encounter. Young pre-schoolers seem to obtain labels for the objects quickly. Words for events as well as modifiers that submit to visible features are found in large numbers,

The attitude of mutual exclusivity is the statement by early childhood stages of vocabulary increase that words mark completely separate category. Pre-schoolers expand language meanings throughout descriptions connecting tangible and by sensory comparisons with their adults.

12.9 Physical environment and early childhood development

Early childhood development is related to the quality of the physical environment, and that the quality of preschool is related to the quality of the physical designed environment.

There is a growing awareness internationally of the importance of early learning, its impact on the individual child, and the wider implications of early learning on the social and economic capacity of communities and nations. Alongside teacher and programme quality, the physical environment is seen as a critical partner in a child's cognitive, social and physical development, described by many as the 'third educator' (Hebert, 1998; Moore & Sugiyama, 2007).

The quality of the physical environment has been linked to positive learning outcomes, with a small body of research illustrating how the design of interior (e.g., room size, layout, furniture, lighting, noise) and external (e.g., outdoor spaces, nature, play equipment) space in

an early learning childcare environment may enhance children's learning and development (Evans, 2006).

With differences in the developmental characteristics of children, the design of schools and the classroom needs to provide positive and enriching experiences in which children can move, explore, experiment, and discover for themselves. Children interpret the environment holistically and evaluate it for all the ways they can interact with it; they use the environment to aid their development and improve themselves (White, 2004).

Educational theorists and practitioners have always recognised the importance of physical space in an early learning environment, with prominent theorists such as Werner, Piaget and Montessori arguing that a child's environment is crucial to their development and that educational environments should be rich in stimuli, providing opportunity for exploration and testing (Moore, 1987). The design of the physical environment should facilitate a child's sense of competence (their capacity to explore their physical world with independence), creating opportunities for learning and play (Maxwell, 2007).

In 1990s researchers are continuing to discover in detail that how the physical environment impacts early childhood development. For an example, Alton J. De Long et al. (1994) revealed that by changing children's sense of space, they change their sense of time. In this experiment, the authors built a smaller scale structure inside their classroom that is childsized, moveable, screened-in porch. They discovered that pre-schooler played complex in this structure; they played faster and spent more time than when they played in the natural classroom. These results suggest that we are able to boost children's concentration spans and help to process information more speedily by changing the scale of their physical environment.

A modern pioneer in curriculum studies, Joseph Schwab (1973), was strong in his idea that curriculum makers must consider four elements of equal level: the child, the educator, the subject matter, and the environment.

According to early childhood settings, Judith Seaver and Carol Cartwright (1986) present examples of direct relations between classroom design and curriculum activities. In their point of view, "the environmental setup should be determined from theoretical principles and connected to the daily schedule of activities." They discuss about environmental design in relative to three educational philosophies. These philosophies are:

Maturationist-focusing on topics and experiences through "informal, incidental, and unstructured activities.

Behaviourist-focusing on topics and skills through "formal, planned, and structured activities. Cognitive-focusing on skills and experiences through "informal, structured, and unstructured activities.

In maturationist programmes physical environment are designed "to develop children's sense of freedom and mobility." For an example, all equipments are displayed and are easily accessible. Children have chance to be in contact with a spacious environment that contains clearly marked activity areas which are easily noticeable and connected by pathways.

In behaviorist programmes "the physical environment is clean, arranged, uncluttered, and apposite for focused work." The classroom is arranged to "focus attention and keep away from conflicts and distractions." The structure is closed and pathways must direct preschoolers to specific activities. These activity areas are separated from each other to provide privacy and both group and individual work.

In cognitive programmes, the activity areas are "a combination of the open maturation areas and the more formal controlled work areas of behaviourist programme." These areas must define carefully to give children opportunities for coping with change, to keep away from uncertainty and competition. Pathways allow children to move "with a sense of purpose".

Relationship between physical environment and philosophy also offer a theoretical framework to understand the more specific interactions between the environment and child behaviour and development. Social-Emotional Development Domain
Social-emotional development includes the child's experience, expression, and management of emotions and the ability to establish positive and rewarding relationships with others (Cohen and others 2005). It encompasses both intra- and interpersonal processes.

The core features of emotional development include the ability to identify and understand one's own feelings, to accurately read and comprehend emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one's own behavior, to develop empathy for others, and to establish and maintain relationships. (National Scientific Council on the Developing Child 2004, 2)

Infants experience, express, and perceive emotions before they fully understand them. In learning to recognize, label, manage, and communicate their emotions and to perceive and attempt to understand the emotions of others, children build skills that connect them with family, peers, teachers, and the community. These growing capacities help young children to become competent in negotiating increasingly complex social interactions, to participate effectively in relationships and group activities, and to reap the benefits of social support crucial to healthy human development and functioning.

Healthy social-emotional development for infants and toddlers unfolds in an interpersonal context, namely that of positive ongoing relationships with familiar, nurturing adults. Young children are particularly attuned to social and emotional stimulation. Even newborns appear to attend more to stimuli that resemble faces (Johnson and others 1991). They also prefer their mothers' voices to the voices of other women (DeCasper and Fifer 1980). Through nurturance, adults support the infants' earliest experiences of emotion regulation (Bronson 2000a; Thompson and Goodvin 2005).

Responsive caregiving supports infants in beginning to regulate their emotions and to develop a sense of predictability, safety, and responsiveness in their social environments. Early relationships are so important to developing infants that research experts have broadly concluded that, in the early years, "nurturing, stable and consistent relationships are the key to healthy growth, development and learning" (National Research Council and Institute of Medicine 2000, 412). In other words, high-quality relationships increase the likelihood of positive outcomes for young children (Shonkoff 2004). Experiences with family members and teachers provide an opportunity for young children to learn about social relationships and emotions through exploration and predictable interactions. Professionals working in child care settings can support the social-emotional development of infants and toddlers in various ways, including interacting directly with young children, communicating with families, arranging the physical space in the care environment, and planning and implementing curriculum.

Brain research indicates that emotion and cognition are profoundly interrelated processes. Specifically, "recent cognitive neuroscience findings suggest that the neural mechanisms underlying emotion regulation may be the same as those underlying cognitive processes" (Bell and Wolfe 2004, 366). Emotion and cognition work together, jointly informing the

child's impressions of situations and influencing behavior. Most learning in the early years occurs in the context of emotional supports (National Research Council and Institute of Medicine 2000). "The rich interpenetrations of emotions and cognitions establish the major psychic scripts for each child's life" (Panksepp 2001). Together, emotion and cognition contribute to attentional processes, decision making, and learning (Cacioppo and Berntson 1999). Furthermore, cognitive processes, such as decision making, are affected by emotion (Barrett and others 2007). Brain structures involved in the neural circuitry of cognition influence emotion and vice versa (Barrett and others 2007). Emotions and social behaviors affect the young child's ability to persist in goal-oriented activity, to seek help when it is needed, and to participate in and benefit from relationships.

Young children who exhibit healthy social, emotional, and behavioral adjustment are more likely to have good academic performance in elementary school (Cohen and others 2005; Zero to Three 2004). The sharp distinction between cognition and emotion that has historically been made may be more of an artifact of scholarship than it is representative of the way these processes occur in the brain (Barrett and others 2007). This recent research strengthens the view that early childhood programs support later positive learning outcomes in all domains by maintaining a focus on the promotion of healthy social emotional development (National Scientific Council on the Developing Child 2004; Raver 2002; Shonkoff 2004).

12.10 Terminologies

1. Enuresis: Night time, loss of bladder control or bed wetting by children.
2. Animism: Is the belief that objects that are inanimate (not living) have feelings, thoughts and have characteristics of living things.

12.11 Activity

1. Explain social, emotional and physical developments that take place at the early childhood stage of child development.

12.12 Reflection

Explain physical changes that take place during the early childhood stage of child developments.

12.13 Summary

In this unit, you have learnt about changes that take place during the early childhood stage of child development, the major changes discussed are: Social, emotional and physical developments.

UNIT 13: MIDDLE CHILDHOOD SOCIAL, PHYSICAL AND EMOTIONAL DEVELOPMENT

13.1 Introduction

Ages 7 through 11 comprise middle childhood. Some authorities divide middle childhood into early-middle (ages 7–9) and late- middle (ages 10–11) periods. Like infants, toddlers, and pre-schoolers, these older children grow both physically and cognitively, although their growth is slower than it was during early childhood.

13.2 Learning outcomes

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

- discuss physical development during middle childhood stage.
- explain social and emotional development at the middle childhood stage.
- Explain how to support children who are at middle childhood stage.

13.3 Time frame

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

13.4 Content

- Physical changes at middle childhood stage

- Brain and nervous system development
- Motor skills
- Middle Childhood Developmental Milestones (6-8 years of age)
- Emotional/Social Changes
- Thinking and Learning
- Positive Parenting Tips

Physical development in middle childhood is characterized by considerable variations in growth patterns. These variations may be due to gender, ethnic origin, genetics, hormones, nutrition, environment, or disease. While children of this age group follow the same basic developmental patterns, they do not necessarily mature at the same rate. Most girls experience a preadolescent growth spurt around age 9 or 10, while most boys experience the same growth spurt around age 11 or 12. Children who do not receive adequate nutrition or

medical attention may be at risk for stunted or delayed growth development. For example, children who live in countries where malnutrition is not a problem tend to be taller than children who live in countries where malnutrition is a problem.

Physical changes, brain and nervous system development, gross and fine motor skills, and health issues are important aspects of physical development during middle childhood as in previous developmental stages.

13.5 Physical changes

By the beginning of middle childhood, children typically have acquired a leaner, more athletic appearance. Girls and boys still have similar body shapes and proportions until both sexes reach puberty, the process whereby children sexually mature into teenagers and adults. After puberty, secondary sexual characteristics—breasts and curves in females, deeper voice and broad shoulders in males—make distinguishing females from males much easier.

Girls and boys grow about 2 to 3 inches and gain about 7 pounds per year until puberty. Skeletal bones and muscles broaden and lengthen, which may cause children (and adolescents) to experience growing pains. Skeletal growth in middle childhood is also associated with losing the deciduous teeth, or baby teeth.

Throughout most of middle childhood, girls are smaller than boys and have less muscle mass. As girls enter puberty, however, they may be considerably larger than boys of the same age, who enter puberty a few years later. Once boys begin sexually maturing, their heights and weights eventually surpass the heights and weights of girls of the same age.

13.6 Brain and nervous system development

Brain and nervous system developments continue during middle childhood. More complex behavioural and cognitive abilities become possible as the central nervous system matures.

Early in middle childhood, a growth spurt occurs in the brain so that by age 8 or 9, the organ is nearly adult-size. Brain development during middle childhood is characterized by growth of specific structures, especially the frontal lobes. These lobes, located in the front of the brain just under the skull, are responsible for planning, reasoning, social judgment, and ethical decision making, among other functions. Damage to this part of brain results in erratic emotional outbursts, inability to plan, and poor judgment. The most anterior (front) portion of the frontal lobes is the prefontal cortex, which appears to be responsible for personality.

As the size of the frontal lobes increases, children are able to engage in increasingly difficult cognitive tasks, such as performing a series of tasks in a reasonable order. An example is assembling a mechanical toy: unpacking the pieces, connecting the parts, making the model move by adding a power source—a series of tasks that must be completed in the correct order to achieve certain results.

Lateralization of the two hemispheres of the brain, also continues during middle childhood, as does maturation of the corpus callosum (the bands of neural fibers connecting the two cerebral hemispheres), and other areas of the nervous system. Interestingly, children achieve concrete operations around age 7 when the brain and nervous systems have developed a certain amount of neural connections. When these neural connections have developed, a child's ability to perceive and think about the world advances from an egocentric, magical viewpoint to a more concrete and systematic way of thinking.

13.7 Motor skills

Motor skills are behavioural abilities or capacities. Gross motor skills involve the use of large bodily movements, and fine motor skills involve the use of small bodily movements. Both gross and fine motor skills continue to refine during middle childhood.

Children love to run, jump, leap, throw, catch, climb, and balance. Children play baseball, ride bikes, roller skate, take karate lessons, take ballet lessons, and participate in gymnastics. As school-age children grow physically, they become faster, stronger, and better coordinated. Consequently, during middle childhood, children become more adept at gross motor activities.

Children enjoy using their hands in detailed ways, too. From early in preschool, children learn and practice fine motor skills. Preschool children cut, paste, mold, shape, draw, paint, create, and write. These children also learn such skills as tying shoelaces, untying knots, and flossing their teeth. Some fortunate children are able to take music lessons for piano, violin, flute, or other instruments. Learning to play an instrument helps children to further develop their fine motor skills. In short, along with the physical growth of children comes the development of fine motor skills, including the sense of competence and confidence to use these skills.

13.8 Health

Middle childhood tends to be a very healthy period of life in Western societies. The typical minor illnesses of early childhood—colds, coughs, and stomachaches—are likely to lessen in frequency in middle childhood. This improved resistance to common illnesses is probably due to a combination of increased immunity from previous exposures and improved hygiene and nutritional practices. Minor illnesses occur, but most illnesses do not require medical attention. Minor illnesses may help children learn psychological coping skills and strategies for dealing with physical discomforts.

Major illnesses for school-age children are the same as major illnesses for younger children: influenza, pneumonia, cancer, human immunodeficiency virus (HIV), and acquired immunodeficiency syndrome (AIDS). But obesity, or being 20 percent or more above one's ideal weight, is a special health problem that occurs during the school years. About 25 percent of school-age children in the United States today are obese, and the majority of these children go on to become obese adults. Obesity in adulthood is related to heart problems, high blood pressure, and diabetes. Although obese children are not at the same medical risks as obese adults, these children should master effective eating and exercise habits as early as possible to decrease the risk of later obesity- and health-related problems.

The majority of disabilities and deaths in middle childhood are the result of injuries from accidents. In the United States, nearly 22 million children are hurt in accidents each year. For children, the most common deadly accidents result from being struck by moving vehicles. Accidents may occur at, near, and away from home; therefore, adequate adult supervision is always important. Injuries occurring at school are usually the result of playground- and sports-related accidents. Consequently, children should always wear protective headgear and other safety gear when playing sports and riding bikes. Other causes of death in middle childhood include cancer, congenital defects, homicide, and deadly infections.

13.9 Middle Childhood Developmental Milestones (6-8 years of age)

Middle childhood brings many changes in a child's life. By this time, children can dress themselves, catch a ball more easily using only their hands, and tie their shoes. Having independence from family becomes more important now. Events such as starting school bring children this age into regular contact with the larger world. Friendships become more and

more important. Physical, social, and mental skills develop quickly at this time. This is a critical time for children to develop confidence in all areas of life, such as through friends, schoolwork, and sports.

Here is some information on how children develop during middle childhood:

13.10 Emotional/Social Changes Children

in this age group might:

- Show more independence from parents and family.
- Start to think about the future.
- Understand more about his or her place in the world.
- Pay more attention to friendships and teamwork.
- Want to be liked and accepted by friends.

13.11 Thinking and Learning

Children in this age group might:

- Show rapid development of mental skills.
- Learn better ways to describe experiences and talk about thoughts and feelings.
- Have less focus on one's self and more concern for others.

13.12 Positive Parenting Tips

Following are some things you, as a parent, can do to help your child during this time:

- Show affection for your child. Recognize her accomplishments.
- Help your child develop a sense of responsibility—ask him to help with household tasks, such as setting the table.
- Talk with your child about school, friends, and things she looks forward to in the future.
- Talk with your child about respecting others. Encourage him to help people in need.
- Help your child set her own achievable goals—she'll learn to take pride in herself and rely less on approval or reward from others.

- Help your child learn patience by letting others go first or by finishing a task before going out to play. Encourage him to think about possible consequences before acting.

- Make clear rules and stick to them, such as how long your child can watch TV or when she has to go to bed. Be clear about what behavior is okay and what is not okay.

- Do fun things together as a family, such as playing games, reading, and going to events in your community.

- Get involved with your child's school. Meet the teachers and staff and get to understand their learning goals and how you and the school can work together to help your child do well.

- Continue reading to your child. As your child learns to read, take turns reading to each other.

- Use discipline to guide and protect your child, rather than punishment to make him feel bad about himself. Follow up any discussion about what *not* to do with a discussion of what *to* do instead.

- Praise your child for good behavior. It's best to focus praise more on what your child does ("you worked hard to figure this out") than on traits she can't change ("you are smart").

- Support your child in taking on new challenges. Encourage her to solve problems, such as a disagreement with another child, on her own.

- Encourage your child to join school and community groups, such as a team sports, or to take advantage of volunteer opportunities.

13.13 Healthy Bodies

- Parents can help make schools healthier. Work with your child's school to limit access to foods and drinks with added sugar, solid fat, and salt that can be purchased outside the school lunch program.

- Make sure your child has 1 hour or more of physical activity each day.

- Keep television sets out of your child's bedroom. Set limits for screen time for your child at home, school, or afterschool care and develop a media use plan for your family.external icon

- Practice healthy eating habits and physical activity early. Encourage active play, and be a role model by eating healthy at family mealtimes and having an active lifestyle.

- Make sure your child gets the recommended amount of sleep each night: For schoolage children 6-12 years, 9–12 hours per 24 hours (including naps)

13.14 Terminologies

1. Nervous system: Is a highly complex part of an animal/human being that coordinates its actions and sensor information by transmitting signals to and from different parts of the body.
2. Pre fontal cortex: Is a cerebral cortex covering the front part of the frontal lobe.
3. Lateralization: of function or activity (as of verbal processes in the brain) on one side of the body in preference to other.

13.15 Activity

1. Discuss childhood developmental milestones middle childhood.
2. Analyse the physical, social and emotional development of children who are at the middle childhood.

13.16 Reflection

What is the function of the nervous system?

13.17 Summary

In this unit, you have learnt about physical, emotional and social developments of children who are at middle childhood. You have particularly learnt that physical development in middle childhood is characterized by considerable variation in growth pattern. These variations may be done to gender, ethnic origin, genetics, hormones, nutrition, environment or diseases.

UNIT 14: ADOLESCENCE DEVELOPMENT (15-17 YEARS OF AGE)

14.1 Introduction

Adolescence is a time of changes for how teenagers think, feel, and interact with others, and how their bodies grow. Most girls will be physically mature by now, and most will have completed puberty. Boys might still be maturing physically during this time. Your teen might have concerns about her body size, shape, or weight. Eating disorders also can be common, especially among girls. During this time, your teen is developing his unique personality and opinions. Relationships with friends are still important, yet your teen will have other interests as he develops a clearer sense of who he is. This is also an important time to prepare for more independence and responsibility; many teenagers start working, and many will be leaving home soon after high school.

14.2 Learning Outcomes

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

- discuss the physical, social and emotional developments that take place during adolescence.
- explain the effect of parenting on developments of adolescents.

14.3 Time frame

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

14.4 Content

- Emotional/Social Changes
- Adolescence physical, Cognitive & Emotional Development
- Physical Development during Adolescence
- Cognitive Development during Adolescence
- Social and Emotional Development during Adolescence
- Emotional Changes: The Ups and Downs of Everyday Life
- Parenting Styles and Their Effects on Adolescents
- Social Development- Friendships and the Quest for Identit Here is some information on how teens develop:

14.5 Emotional/Social Changes

Children in this age group might:

- Have more interest in romantic relationships and sexuality.
- Go through less conflict with parents.
- Show more independence from parents.
- Have a deeper capacity for caring and sharing and for developing more intimate relationships.
- Spend less time with parents and more time with friends.
- Feel a lot of sadness or depression, which can lead to poor grades at school, alcohol or drug use, unsafe sex, and other problems.

14.6 Thinking and Learning

Children in this age group might:

- Learn more defined work habits.
- Show more concern about future school and work plans.
- Be better able to give reasons for their own choices, including about what is right or wrong.

14.7 Adolescence physical, Cognitive & Emotional Development

In this unit, we will discuss about physical, cognitive, social and emotional development during adolescence.

14.8 Physical Development during Adolescence

The beginning of adolescence is signaled by a sudden increase in the rate of physical growth. While this growth spurt occurs for both sexes, it starts earlier for girls (at about age ten or eleven) than for boys (about age twelve or thirteen). Before this spurt, boys and girls are similar in height; in its early phases, girls are often taller than boys; after it is over, males are several inches taller, on average, than females.

This growth spurt is just one aspect of puberty, the period of rapid change during which individuals of both genders reach sexual maturity. During puberty the gonads, or primary sex

glands, produce increased levels of sex hormones, and the external sex organs assume their adult form. Girls begin to menstruate and boys start to produce sperm.

In addition, both sexes undergo many other shifts relating to sexual maturity. Boys develop facial and chest hair and their voices deepen. Girls' breasts develop, and their hips widen; both sexes develop pubic hair. There is great individual variability in all these respects. Most girls begin to menstruate by the time they are thirteen, but for some this process does not start until considerably later, and for others it may begin as early as age seven or eight. Most boys begin to produce sperm by the time they are fourteen or fifteen; but again, for some the process may start either earlier or a bit later.

Facial features, too, often change during puberty. Characteristics associated with childhood, such as large eyes, a high forehead, round cheeks, and a small chin, give way to a more adult appearance.

We'll examine, what makes people physically attractive, some members of both genders retain relatively childlike facial features; for females such "baby-faced" appearance can be a plus, because many males find it attractive. Being baby-faced does not confer such advantages on males, however. In fact, recent findings indicate that adolescent males who are baby-faced may attempt to compensate for this by behaving in antisocial ways (e.g., committing crimes).

Gender differences also exist with respect to the effects of early sexual maturation. Earlymaturing boys seem to have a definite edge over those who mature later. They are stronger and more athletic and often excel in competitive sports. Partly as a result of these advantages, they tend to be more self-assured and popular and are often chosen for leadership roles.

In contrast, early sexual maturation can have negative implications for females. Earlymaturing girls are taller than their classmates frequently taller than boys their own age and their increased sexual attractiveness may invite unwanted sexual advances from older persons. In short, the timing of puberty can play an important role in adolescents' developing self-identities and so in their later social development.

14.9 Cognitive Development during Adolescence

Adolescents become capable of logical thought. However, this does not mean that they necessarily demonstrate such thinking. In fact, only about 40 percent of adolescents can solve the kind of problems used by Piaget to test for formal operational thinking. Moreover, if they do show such logical thought, it may be restricted to topics or types of problems with which they have had direct experience.

In addition, adolescents' theory of mind, their understanding of how they and others think continues to change and develop. Younger children take what has been described as a realist approach to knowledge; they believe that knowledge is a property of the real world and that there are definite facts or truths that can be acquired.

In contrast, older children and preadolescents become aware of the fact that experts often disagree; this leads them to develop a relativist approach, which recognizes that different people may interpret the same information in contrasting ways.

Preadolescents go a bit farther, adopting a defended realism approach, which recognizes the difference between facts and opinions. Yet they continue to believe that there is a set of facts about the world that are completely true, and that differences in opinion stem from differences in available information.

Still later, adolescents come to realize that there is no secure basis for knowledge or for making decisions; at this point, they adopt an approach described as dogmatism-skepticism, in which they alternate between blind faith in some authority and doubting everything.

Finally, some adolescents, at least, realize that while there are no absolute truths, there are better or worse reasons for holding certain views, an approach described as post skeptical rationalism. This, of course, is the kind of thinking democratic societies wish to encourage among their citizens, because only people capable of thinking in this way can make the kind of informed judgments necessary for free elections.

In sum, cognitive development does not stop in childhood; on the contrary it continues throughout adolescence and results, ultimately, in more mature modes of thought.

14.10 Social and Emotional Development during Adolescence would be surprising if the major physical and cognitive changes occurring during adolescence were not accompanied by corresponding changes in social and emotional development. What are these changes like? Let's see what research has revealed.

14.11 Emotional Changes: The Ups and Downs of Everyday Life

It is widely believed that adolescents are wildly emotional—that they experience huge swings in mood and turbulent outbursts of emotion. Is this belief correct? To a degree, it is. In several studies on this issue, large numbers of teenagers wore beepers and were signaled at random times throughout an entire week. When signaled, they entered their thoughts and feelings in a diary.

Results indicated that they did show more frequent and larger swings in mood than those shown by older persons. Moreover, these swings occurred very quickly, sometimes within only a few minutes. Older people also show shifts in mood, but these tend to be less frequent, slower, and smaller in magnitude.

Other widely accepted views about adolescent emotionality, however, do not appear to be correct. For instance, it is often assumed that adolescence is a period of great stress and unhappiness. In fact, most adolescents report feeling quite happy and self-confident, not unhappy or distressed. Moreover, and again contrary to prevailing views, most teenagers report that they enjoy relatively good relations with their parents.

They agree with them on basic values, on future plans, and on many other matters. There are some points of friction, of course. Teenagers often disagree with their parents about how they should spend their leisure time and how much money they should have or spend; and to some extent parents and teenagers disagree about sexual behavior, although the gap is not nearly as large as you might believe. In general, though, teenagers are happier and get along better with their parents than is widely assumed.

14.12 Parenting Styles and Their Effects on Adolescents

The fact that most adolescents get along well with their parents is, in one sense, surprising; after all, there are growing sources of conflict between parents and children during these years.

In particular, parents must come to terms with the fact that their children are turning rapidly into adults, and this means giving them the increasing freedom they seek at least up to a point. How should parents react to these changes? Growing evidence suggests that while there is no single "best" parenting style, some broad patterns or styles of parenting have more beneficial effects than others.

Two key dimensions seem to underlie differences in parenting styles. One has to do with parental demandingness the extent to which parents are strict or controlling. Parents high on this dimension seek to control their children through status and power, and confront them (often angrily) when they do not meet the parents' expectations. A second dimension is that of parental responsiveness the extent to which parents is involved in and supportive of their children's activities.

Parents high on this dimension listen actively to their children, respond to their requests, show warmth, and focus on their children's concerns and interests during conversations with them. Together, these two dimensions yield the parenting styles. Authoritarian parents are high in demandingness (controlling) and low in responsiveness. They establish strict rules for their children and don't give them much say in decisions.

Authoritative parents, in contrast, are high in both demandingness and responsiveness: They establish rules for their children but show great interest in, and responsiveness to, them. Permissive parents are high in responsiveness but low in demandingness. They are warm and responsive, but they set no rules or standards for their children and don't hold them accountable for their actions. Finally, rejecting/neglecting parents are low in both responsiveness and demandingness, they just don't seem to care what children do or what they become.

Not surprisingly, these contrasting styles have strong and lasting effects. Growing evidence suggests that an authoritative style may yield the most beneficial effects. Adolescents whose

parents adopt this approach are generally competent both socially and cognitively. That is, they are confident yet friendly and cooperative, and they tend to do well in school. In contrast, adolescents whose parents show a rejecting/neglecting style tend to be lower on both dimensions.

Moreover, they often show unsettled patterns of behavior, rejecting their parents and engaging in various forms of antisocial behavior that can get them into serious trouble. Children whose parents adopt an authoritarian or permissive style tend to fall in between. So, again, contrary to what Harris (1998) suggested, parents do indeed seem to matter where the adjustment of adolescents is concerned.

14.13 Social Development- Friendships and the Quest for Identity

Important as they are, parents are only part of the total picture in the social development of adolescents. Friendships, primarily with members of their own gender, but also with members of the other gender, become increasingly important.

In fact, most adolescents are part of extensive social networks consisting of many friends and acquaintances. Girls tend to have somewhat larger networks than boys, and these networks tend to become smaller and more exclusive as adolescents grow older a trend that continues throughout life (e.g., Fung, Carstensen, & Lutz, in press).

One motive for forming friendships during adolescence seems to be the developing need to belong the need to have frequent positive interactions within ongoing relationships. This need strengthens during early adolescence and leads many preteens and teenagers to reject parental influence and to identify with their peers.

Thus, they adopt the dress, style of speech, and overall style of their chosen peer group, sometimes to the point where parents worry that their offspring have entirely surrendered their unique identity. Within a few years, however, this tendency subsides, and teenagers begin to conform less and less to their peer group.

Friendships and social success also play an important role in another key aspect of social development during adolescence, the quest for a personal identity. This process is a key element in a famous theory of psychosocial development proposed by Erik Erikson (1950, 1987), a theory well worthy of a closer look.

14.14 Terminologies

1. Adolescence: the period following the onset of puberty during which a young
   person develops from a child into an adult.

14.15 Activity

1. Discuss physical, social and emotional development that take place during
   adolescence.

14.16 Reflection

What can you do to reduce some of the pressures adolescents go through?

14.17 Summary

In this unit, you have learnt physical, social and emotional changes that take place during
adolescence. You have also learnt about the role parents can play to help adolescents adjust to
the many pressures they go through during adolescence.

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