**HUMAN GROWTH AND DEVELOPMENT**

**Group 5 – Lifespan [Characteristics of Stages and Implication to Teaching and Learning]**

**Introduction**

**Development**, as defined by Overton in 2006, means all the physical and the psychological changes a human being undergoes in a lifetime, from the moment of conception until death. This simply implies that the study of human development is the study of change.

Some theorist view development as a continuous process in which new attainments in thinking, language and social behavior are characterized by gradual, stead, small quantitative advances but basing on Robert Siegler’s suggestion in (1996, 1998), development can be viewed as a discontinuous progression of an individual through a series of stages, or periods during which innovative developmental accomplishments abruptly surface, presumably because of some fundamental reorganizations in thinking or other capabilities underlying behavior have taken place.

**Lifespan** refers to the entire lifetime of an individual, from conception to death. This means the number of years a person has spent on Earth before dying.

**PRENATAL STAGE**

According to Danuta Bukatko in 2008, the first steps in human development is the Prenatal stage which represents the period from conception up to birth. Prenatal development is launched from the moment of fertilization and continues until the beginning of labor (Bukatko, 2008) after which the postnatal period, which is the early stage of infancy sets in. In general, **prenatal** development is the process of growth and development within the womb, in which a single-cell zygote (the cell formed by the combination of a sperm and an egg) becomes an embryo, a fetus, and then a baby.

**Fertilization** is the process by which the sperm or, in rare cases, sperms enter an ovum or, the ova to form a zygote or zygotes respectively. From prenatal, the female has over 2 million primitive eggs in her ovaries, then the number reduces with development to about 30,000 and from this abundant supply, about 400 mature and are released for potential fertilization during the childbearing years (Moore & Persaud, 2003). In contrast, male sperm production begins only at puberty, when over 100 to 300 million sperms are formed daily. The prenatal stage is further subdivided into three whose characteristics are discussed below.

**Germinal Period (0 -2 Weeks) Characteristics**

**One ovum is released approximately once a month** **during ovulation in a woman**. This is under normal circumstances and egg makes its way into a fallopian tube, a structure that guides the egg away from the ovary toward the uterus.

**The sperm enters the egg to form a zygote.** This is called fertilization. Sperms ejaculated during sexual intercourse in a substance called semen make their way from the vagina into the uterus and subsequently into the fallopian tube where the ovum has been released and process can take up to ten hours after ejaculation.

**A zygote begins as one-cell structure.** The zygote divides and multiplies, going from a one-cell structure to two cells, then four cells, then eight cells, and so on. This process of cell division is called mitosis.

**The genetic makeup and sex of the baby are set through the combination of chromosomes**. Normally, males have xy chromosomes while female have xx chromosomes.

**Genetic inheritance of gene based behavior and characteristics occur.** In 1866, Gregor Mendel concluded that, offspring receive one chromosome from the mother and one from the father and it was further establish in 1953 by Francis Crick that genes are duplicated during cell division (Natural Human Genome Research Institute, 2003).

**After 5 days of mitosis there are about 100 cells.** The division continues and cells become more specialized, forming different organs and body parts.

**The mass of cells has yet to attach itself to the lining of the mother’s uterus.** This mas is called the blastocyst (Sadler, 2004). Once it does the next stage commences.

**The Embryonic Period (3-8 Weeks) Characteristics**

**There is early brain and nervous system development.** The neural tube which in turn initiates the formation of the spinal cord, nerves and eventually the brain develops. Estimates are that as many as 250,000 neurons are generated every minute during the prenatal period (Dowling, 1998).

**There is formation of the body Organs and systems.** The head also begins to form rapidly as the first signs of facial features start showing them. The heart starts developing from a single blood vessel and starts pulsating lightly.

**There is formation of the limbs, roughly around 5 weeks into pregnancy.** By 8 weeks, the embryo has nearly most of the basic organs a human being needs to function (Gilbert, 2003), but its gender still remains undetermined.

**Fetal Period (9-40 weeks) Characteristics**

**There is the change from embryo to fetus.** This is signaled by the emergence of bone tissue at about the eighth week after conception. Organ differentiation continues particularly in the productive system and brain.

**The fetus makes movements and pronounced body features.** The fetus can for example display sucking and the basic motions of breathing and swallowing (Samuels & Samuels, 1996).

**The genitals start developing.** This happens in the second third of the pregnancy period (second trimester) and the gender can then be determined because of the genitalia.

**Gestational age or period is reached.** The fetus gains weight and birth is now expected after about 274 days from conception. The average gestation period is now about 39 weeks (Davidoff et al., 2 006)

**The Child is born.** Labor sets in and the mother assisted to deliver the baby by a well trained medical personnel who follows different procedures in order for the safe delivery.

Within the prenatal stage, different factors like diseases, use of un-prescribed drugs, taking alcohol and other factors may lead to abnormal development of the child within the womb and may be death in some cases.

**Implications of the prenatal stage of development**

**Proper Nutrition:** The mother has to take a proper balanced diet that contains all the nutrients needed for proper brain development. The DHA content of the animal **milk**, meat, poultry and eggs can be increased by giving omega-3 fatty acid rich diet to the mother and these are crucial for **brain** **development** and its integrity and functionality (Singh, 2005)

**Proper Care:** There should be proper care and stress free conditions for the pregnant mother. A stressed mother is at a high risk of having a miscarriage. According to Ghneim and Alshebly in 2016; oxidative stress in a major agent that leads to miscarriages in mothers.

**Regular medical Checkups:** The pregnant mother should always go for regular medical checkups so as for the doctors to be updated about the development of the baby and hence recommend necessary drugs in case of ay problem detected about the child’s growth within the womb. Prescriptions are also required for the wellbeing of the baby. This is done to avoid improper brain and body development.

**Proper Hygiene:** Pregnant mothers should always maintain proper hygiene to avoid diseases like dysentery, cholera which may cause miscarriage or impairment of the baby who is under development in the womb.

**Body Exercise:** Enough body exercise is needed for the pregnant mother so as to keep the growing baby healthy inside the womb. The exercises can be inform of jogging in the morning, walking or other yoga practices that help the body to keep fit. Body exercise for the pregnant mothers is very important and it helps ease the pain during delivery (Rauff & Downs, 2011).

**CHILDHOOD (0-18 years)**

Etymologically, the term “child” comes from the Latin infans which means “the one who does not speak”. For the Roman, this term designates the child from its birth; up to the age of 7 years. The [Convention on the Rights of the Child](https://www.humanium.org/en/convention/) of 1989 defines a child as any human being below the age of eighteen years, unless under the law applicable to the child, majority is attained earlier. According to Bukatka in 2008, childhood is divided into four major periods which include: infancy (birth to 2 years), early childhood (2 to 6 years), middle childhood (6 to 11 years), and adolescence (12 to 18 years).

**INFANCY (0-2 YEARS)**

According to Kail(2011). There are various definitions of periods in a child's development, since each period is a continuum with individual differences regarding start and ending. According to Shaffer (2009) this is the first stage in Piaget's theory, where infants have the following basic senses: vision, hearing, and motor skills. In this stage, knowledge of the world is limited but is constantly developing due to the child's experiences and interactions. According to Piaget, when an infant reaches about 7–9 months of age they begin to develop what he called object permanence, this means the child now has the ability to understand that objects keep existing even when they cannot be seen.

**Characteristics of Infants**

**Infants have rapid body growth and Development.** The newborn maintains a high rate of growth for several months following birth. McCall in 1979 said that if growth rate during the first six months after birth were sustained, the average ten-year old would be about 100 feet tall. Girls can be expected to reach approximately half their adult height a little before two years and boys a little after two years of age (Fredriks et al., 2000).

**They usually make rapid weight gains**, normally doubling their birth weight in about five months and nearly tripling it by the end of the first year (Pineyerd, 1992). If this rate is kept up, a ten-year-old would weigh about 240,000 tons (McCall, 1979).

**They have a rapid development of the brain.** According to Spreen, Risser, & Edgell in 1995, the size of the brain increases rapidly from about 4 percent of its adult weight at five months after conception to about 25 percent at birth.

**The development of the nervous system is rapid.** Here the child is developing the sensory nerves and the brain receptors which enable him or her to feel pain, hunger and sense different things like heat, light among others.

**The infant develops motor skills.** At first, these skills are just reflexes that depend on stimuli like touch, light, sound, which then give rise to voluntary movements and acquisition of motor skills like walking, running, sitting, speaking among others.

**They sleep a lot.** It common in most of the infants although there might exist individual differences. Sleep and wake cycles disturbed by external stimulation. Infants gradually sleep less with time but for longer periods and by about 3 to 5 weeks of age, they begin to form a pattern in which the longest sleep periods take place at night (Thompson, 1982).

**They learn by habituation, classical conditioning, operant conditioning, imitation.** Habituation is where the infant is made to see or hear the same thing over and over which results into eventual learning and memorizing it whereas classical conditioning is when the stimulus itself triggers or excites the body to respond to it. On the other hand, operant conditioning which results from the frequency of the behavior changes based on the positive and negative consequences.

**They have visual, auditory, intermodal perceptions.** Infants can see and recognize different shapes and appearance of things, they do hear and recognize sound and they have the capacity to integrate several sensory inputs (Gibson, 1988) (Trehub, Unyk, & Trainor, 1993) (Lickliter & Bahrick, 2000).

**Infants develop cognition through memorizing different objects and situations as they grow.** According to Piaget, infants recognize events and actions and in most cases, if the action is of interest to them, then they repeat it or show urge for the event to be repeated (Piaget, 1952).

**They gather information for language development.** Here, the infants learn by hearing their parents, or other people speak and through cognition, they put together patterns and recognize words. At this stage, they utter their first words/word and infants learn the language of the people surrounding them (Kuhl et al., 1992; Polka & Werker, 1994; Werker & Tees, 1984).

**Emotional development is established.** Much of emotional development occurs during the first year or a little past that. Infants only a few days or weeks old are capable of producing the facial expressions associated with several emotions, including interest, distress, disgust, joy, sadness, anger, and surprise (Field et al., 1982; Izard, 1978; Izard et al., 1995)

**Infants develop attachment to some people.** This attachment is mostly with the people that are always around them for example, the mother, the father, siblings, among others. According to a research conducted on infant monkeys by Harlow and Zimmerman in 1959, this is due to the soothing the infants receive from the people surrounding them.

**They start to recognize self and others.** Research reveals that infants recognize their own voice, face and body movements as different from those of others, suggesting that the origins of understanding of self as separate and distinct from other people and objects well before the end of the first year (Legerstee, Anderson, & Scaffer, 1998; Rochat & Striano, 2002; Thomasello, 1995).

**EARLY CHILDHOOD (2-6 YEARS)**

During this stage of development, young children begin analyzing their environment using mental symbols. These symbols often include words and images and the child will begin to apply these various symbols in their everyday lives as they come across different objects, events, and situations. However, Piaget's main focus on this stage and the reason why he named it “preoperational” is because children at this point are not able to apply specific cognitive operations, such as mental math. In addition to symbolism, children start to engage in pretend play in which they pretend to be people they are not (teachers, superheroes).

**Characteristics of Early Childhood stage**

**They exhibit reduction in the rate of growth of brain.** The brain has passed its period of rapid growth in size. By the age of 4 years, the size of the brain is about 80 percent of its adult weight (Spreen et al., 1984)

**They develop different body features unique to themselves.** This stage is usually influence by factors life genetic makeup, hormonal influences, neural control, nutrition and health which play a big role in the growth and development of the body.

**Learning is in the form of Implicit and perceptual Leaning.** Implicit learning is knowledge that is incidentally acquired from processing structured information, in other words, learning is unintentional. This involves examples like learning to riding a bicycle. It involves combining previous experiences in order to generate knowledge and acquire new knowledge (Vinter & Perruchet, 2000). On the other hand, perceptual learning involves the use of visual discrimination of objects (Gibson et al., 1962).

**They possess preoperational cognition and thinking.** According to Piaget, the feature of the young child’s thought in this stage is the semiotic function, the child’s ability to use a symbol, an object, or word to stand for something. This is evident at home when children are playing, they tend to use dolls to represent mothers and other objects to form a small family of their own.

**They exhibit the knowledge of numerical and spatial concepts.** Here the children can be seen to use numbers in counting their toys, or other things and also using landmarks to recognize different places.

**Children have a firm memory and tend towards understanding psychological states.** The issue of sustaining memory is evident in that the child learns words and expressions that later are used together in the language and at this stage, they can recognize psychological states and different emotions as displayed by other people for example, sadness, and joy.

**Children take language learning more seriously.** They are so inquisitive of the names of different objects and people around them. This is because they would like to know what they can call them in future if the need arises to refer them.

**They can, to some extent, express and regulate their emotions.** Emotions like sadness, joy, surprise and fear can be expressed to an even more psychological level. For example at this stage fear may arise due to the possibility of failing an academic test or being rejected by peers (Morris & Kratchowill, 1983; Rutter & Garmezy, 1983).

**There is strengthening of the concept of self.** At this stage of development, the child starts referencing him or her-self as ‘I’ and this helps them in forming descriptions of them-selves. Self as object, as me**,** event to a young child, includes a sense of psychological and social being (Damon & Hart, 1988; Harter, 1999).

**Moral Development occurs.** During early childhood, conscience seems to arise in the child’s third year of life. Conscience has two components; the ability to feel moral emotions, such as guilt and empathy, and the tendency to follow rules set forth by adults, even when children are not being watched (Akson & Kochanska, 2005)

**Recognition and practicing of gender roles.** Children within this stage learn to distinguish the roles of a male and female, mostly in the family setting. The about gender stereotypes include personality traits, occupations, appearance qualities, and household activities that are associated with males and females (Bauer, Liebel, & Stennes, 1998; Poulin-Dubois et al., 2002).

**They exhibit social interaction skills.** They recognize family members and make friendships with the neighboring children. This arises as a result of learning language and it also helps them in their cognitive development.

**There is attraction to media.** Children at this age develop the interest in television programs and start comprehending them. Children can now understand short story segments and remember the most central elements of each story (Lorch, Bellack, & Augsbach, 1987).

**MIDDLE CHILDHOOD (7-11 YEARS)**

During this stage, children between the age of 7 and 11 use appropriate logic to develop cognitive operations and begin applying this new thinking to different events they may encounter. Children in this stage incorporate inductive reasoning, which involves drawing conclusions from other observations in order to make a generalization. Unlike the preoperational stage, children can now change and rearrange mental images and symbols to form a logical thought; an example of this is reversibility in which the child now has the ability to reverse an action just by doing the opposite.

**Characteristics of Middle Childhood Stage**

**High levels of curiosity:** Samuel Johnson observed that; Curiosity is one of the most permanent and certain characteristics of a vigorous intellect. Children’ natural curiosity can seem like an annoyance to busy parents, but it is an important trait that should not be stifled (Berlyne, 1966). Many of the world’s leading inventors and entrepreneurs point to their natural curiosity as the roots of their successes. Curiosity can make learning more interesting and result in more active rather than passive thinking, which is good for the child’s brain.

## High social Skills: Social interaction is a basic part of life for both children and adults and learning appropriate social skills is essential. Some children are born with the charm and outgoing personality needed to get along with others, but for some, socializing may be more difficult.

## Low resilience to problems: Many parents understandably try to shield their children from painful situations, instead of teaching them resilience which will serve them better in the long run. Children normally run to their parents when they are disturbed by some other issues or friends and some of them threaten their play mates to report them to their parents (Fonagy & Target, 1998).

## A lot of confidence: Children have a lot of confidence when they are at this stage of development. They confidently ask questions to everyone around them without caring who they are asking these questions.

## Resourcefulness: Most children are resourceful. Some children start being resourceful at an early age. For instance, African boys can make traditional guns out of yam-stalks. Then the African girls end up making dolls out of banana fibers. This shows a sign of integrity and being resourceful in future.

## Humility: Most children are ever humble and are quick to obey authority. Humility can be in harmony with confidence and positive self-esteem because at this stage, a child is self-assured and does not feel inferior to others, he/she does not feel the need to brag about his talents and achievements.

## Humility: Most children in the middle childhood stage are in most cases humble. Humility can be in harmony with confidence and positive self-esteem because when a child is self-assured and does not feel inferior to others, he won’t feel the need to brag about his talents and achievements.

## They are assertiveness: Children at this stage are always assertive. Assertiveness involves being bold and confident, and speaking up when necessary but still remaining respectful. Being assertive helps a child to foster insight, wisdom, patience, tolerance, confidence and acceptance. It is the necessary building block to mature and develop peaceful relationships between all human beings.

## Creativity: Children take time for creative activities, such as music, photography, theater, making creations from clay or other materials, visiting museums and nature preserves, as well as drawing and painting.

## Empathy: Children are too empathetic (Rieffe, Ketelaar, & Wiefferink, 2010)). They tend to cry with crying play mates and laugh with the laughing people because they tend to feel what they feel. Being empathetic helps them to have better emotional intelligence.

## Integrity: According to Mascaro and Morin in 2014, children under this stage are in most cases honest to their parents and this can be seen as integrity. For example, it is hard for a child to lie to the elder about who stole some sugar from the bowl, they always report right away.

**Implication of the children characteristics in the teaching and learning process**

Parents should always strive to **be good examples to their children** right away from infancy because they are learning from them all the time and these children often imitate their parents.

**Proper nutrition** should be paramount for the children since their brain is still under development and poor feeding may lead to improper development, stunted growth and different diseases that may cause brain damage. Breastfeeding has a great influence on the IQ of the children (Caspi, et al. 2007)

**Proper health care** for the children from infancy until adulthood is required so as to keep the children health and mentally stable not worrying of diseases that may cause them to lose concentration in academics and hence affecting the teaching and learning process.

Parents and teachers should **encourage the curiosity of children** and they should be taken to new places and be taught new things. They should as well be asked questions to keep them interested in the world around them.

Parents, teachers and other educators can **use activities to build up social skills** in children, such as learning to read facial expression or playing games to pick up on body language because children with good social skills tend to do better in school, have a better self-image and are better at resolving conflicts.

Educators should **try problem-solving together with the children** so that they learn how to manage the problem. And parents can help children put their problems in perspective, so they learn most problems are not as big or as undefeatable as they may first seem.

A parent should **discuss family values with their children** and ask them what the child would do if faced with ethical dilemmas, such as seeing a friend steal from another student’s desk or cheating to get better grades. Talking through these questions will help prepare a child for real life situations.

Parents and teachers should **work to nurture resourcefulness** in their children through activities that will help the child to be resourceful and think out-of-the-box. For example, challenging them to create new uses for old objects, such as plastic bottles, an egg carton or rubber bands. This will help the child both in the teaching and learning process.

Teachers and parents should **foster creativity in children** since it benefits them in ways like building their communications skills, improving their cognitive abilities such as problem-solving, and developing their emotional development. Therefore, children should be given free time without the screen time every day to develop their own creative thought. Through this; their learning and teaching process will be improved.

Parents and teachers should **build children’s empathy**, through modeling empathy and expanding the children’ outer circle to include people different from themselves, and that can even include diverse characters in books and movies and parents should encourage children’ natural sense of empathy for others and to stress the importance of caring for others.

## Assertiveness among children should be encouraged since it teaches the child the various communication styles and role-playing different scenarios hence, this helps him or her in the teaching and learning process.

Educators should **maintain an important balance between having positive self-esteem and remaining humble** that all children and need to learn. Therefore, humility will help children in their teaching and learning process since they will humbly utilize their talents willingly without bragging around. Children who lack humility may grow up to be arrogant adults, and no one wants that.

Children should be allowed to fail at times and to overcome obstacles on their own which helps them build their confidence for future endeavors. During the teaching and learning process mostly at school, these children do not have parents to help them out, and will need to believe they can face challenges on their own.

Educators should be aware that there is a lot to learn in life that goes far beyond the academics of mathematics, science and literature, and many of these lessons must come first from parents in the home.

Parents and teachers should teach children to be religious and trusting in God which helps in building an upright conscience within the child making him or her a better community member with integrity and ethical principles.

**ADOLESCENCE (12-18 YEARS)**

Adolescence is a transitional stage of physical and psychological development that generally occurs during the period from puberty to legal adulthood. Adolescence is usually associated with the teenage years, but its physical, psychological or cultural expressions may begin earlier and end later (Dorn & Biro, 2011). Adolescence, these are the years from **puberty** to **adulthood**, may be roughly divided into three stages: early adolescence, generally ages eleven to fourteen; middle adolescence, ages fifteen to seventeen; and late adolescence, ages eighteen to twenty-one.

**CHARACTERISTICS OF THE ADOLESCENCE STAGE OF DEVELOPMENT**

**Varying maturity rates:** Adolescents have varying maturity rates, with girls tending to mature one and one-half to two years earlier than boys. This makes the girls appear older than boys making them susceptible to sexual harassment and abuse.

**Respond positively to opportunities to participate in real life situations:** Since they have different dreams, ideas and theories of life, they always desire to try them out in the real life. They like experimenting with new things and ideas they gather from their peers and elders.

**Experience restlessness and fatigue due to hormonal changes:** Hormonal changes are part of development of a human being they are more pronounced in the adolescence stage and this can lead to restlessness of the children which may appear to others as just children being stubborn and disrespectful to the authority of adults.

**Psychologically vulnerable:** Adolescence is a very dangerous stage since it is easy to manipulate the mind of an individual since they are looking for a way forward they are still deciding on how to run their lives. Are psychologically vulnerable, because at no other stage in development are they more likely to encounter so many differences between themselves and others.

**Finding fault with authority figures:** As a result of false thinking, adolescents have a lot of imagination about what the world ought to be like. They envision an ideal world; compare it with the real world for which they hold adults responsible. They tend to think that they know better than the adults how to run the world, they frequently find fault with parents.

**Argumentativeness:** Because of their greater flexibility in thinking, adolescents enjoy altering their reasoning abilities and look for loopholes in the argumentative processes as they marshal facts and logic in order to justify themselves in cases such as staying out later than think they should.

**Self-consciousness:** Adolescents have a perception that everyone else is thinking about the same thing as themselves. They are so suspicious to an extent that even when old people are talking, adolescent think they are talking about them. They easily put themselves in other people’s minds and try to recapture what others are thinking. In this way, they end up creating an imaginary audience.

**Changing philosophy:** Philosophy is a way of life. Many adolescents tend to lead a life that is directly opposed to that of their parents and counselors. For instance, a youth from a catholic family can choose to become a Muslim just out of curiosity. Because of this, any person responsible of adolescents will meet with stiff resistances, resentment, rebellion and hostility.

**Self-centeredness:** Most, if not all adolescents have egocentric tendencies. They regard themselves as special members of the community and think that they matter more than others. As a result, they can be destructive and tend to take unnecessary risks especially in sexual matters. They are chiefly driven by pleasurable emotions. They also have high affinity for exploration.

**Indecisiveness:** Adolescents can hardly make up their minds even on trivial matters. This is because they are faced with a multiplicity of choices and alternatives. They are preoccupied with alternatives, so they usually take long to make decisions.

**Apparent hypocrisy:** Adolescents find it hard putting their thoughts into actions. They are more verbal but less practical. Often times, adolescents do not recognize the difference between expressing an idea and making the sacrifice necessary to live up to it. They are inconsistent in their actions. For instance, they can demonstrate against injustice while abusing people, destroying property or even trampling on other people’s rights.

**Independence:** After developing a high authentic deductive reasoning, adolescents tend to develop independence of thought. This however, tend to create a lot of tension between them and their caretakers especially when their values are misunderstood. They seek to become increasingly independent, searching for adult identity and acceptance (Eccles, Midgley, & Wigfield, 1993). For example when children attempt to give advice and wise counsel they are not taken seriously.

**The crisis of identity:** Adolescents undergo identity crisis that is characterized by three things; physical attractiveness, performance and social status. Because of this, adolescents are bothered by their looks and will try various fashions in an effort to improve their looks. At times they may venture into things that adults take to be almost ridiculous like haircuts, baggy trousers, and funny skirts

They are bothered by their academic performance. They can change their names since they do not know exactly what they are, what they want and feel so strong to an extent that they can even fight a teacher. Identity crisis can even lead to juvenile deliquescent behaviors like smoking to acquire a class, drinking alcohol or even confronting parents.

**Mood swings:** Change of mood is characteristic of adolescent behavior since adolescents make unguarded reactions to certain situations by over-reacting or under reacting. They sometimes drastically change from happiness to sadness even without sufficient or reasonable cause. They experience erotic feelings that if not channeled into harmless activities can bring restlessness and moodiness.

**Sex maturity:** Adolescence is a period for the development of secondary sexual characteristics like breasts in girls, pubic hair, beards for boys, voice deepening, enlargement of sexual organs, sexual activity (very-high libido); menstruation in girls and wet dreams in boys. It is a period of development of heterosexual relationships like girlfriend and boyfriend relationships.

**Desire to belong:** According to Gordon in 1971 adolescents have a strong need to belong to a group, with peer approval becoming more important as adult approval decreases in importance. They tend to dress to impress their peers, and sometimes act to seek recognition from their mates.

**Implications of the Adolescence stage to the teaching and learning process**

Educators both in community, school and at home together with the government need to **establish laws that protect these young people** since they can easily be manipulated into committing crimes and even being taken advantage of in many ways by the adults.

Teachers and counselors ought to try and **bring reality home to these adolescents** and help them to understand that perfection is not a human virtue but a godly quality and that the world is not perfectly an ideal place since they tend to think away from the reality around them.

These adolescents need **not to be condemned out rightly**, but a closer look and analysis should be subjected to their ideas. They should be allowed to discover their own philosophy of life. Who knows, with time they could return to the way and belief of their parents after some experimentation.

Teachers, parents and counselors should help these adolescent in **maintaining a sense of self identity** and help them understand that other members of the community are equally important. Help them to take calculated step in their lives instead of unnecessary risks.

Teachers should be able to **bring opportunities to their learners** which opportunities are aimed at creating the environment of applying theoretical concepts practically and in real life. This can be done through organizing exhibitions and attending national competitions and debates.

Teachers should **appreciate the difference in stages of development between boys and girls** and prepare to handle girls and boys in a way that does not make them feel out of place. For example, if a child has grown past his or her mates, the teacher should find ways of making the child to fit in with others instead of making them the subject of discussion.

The teacher and other educators should give them **group work in class since they prefer interaction** with peers during learning activities. This makes them feel a sense of belonging and have a chance to show off their skills to others.

Teachers, parents and counselors need to maintain their deeds with their actions so as to **provide a sure example** to these restless and rowdy youth. We should preach to them by our actions as it is often said that; “actions speak louder” instead of following the philosophy’ “do what I say and not what I do.”

Parents, teachers and counselors should **accord adolescents some degree of trust, respect and independence**. They should view their mistakes not as total failures but rather as attempts to improve their lives because misunderstanding adolescents can minimize their contributions and denying their degree of independence makes them bewildered.

As parents, teachers and counselors, we need to **encourage adolescents to excel in academic work** though we may not need to pressurize them since success does not only lie in the academics sphere. They also need to be put in a better place so as to feel that they matter and are recognized.

Educators should **organize seminars and tours to different schools**, for their learners to meet different people and establish friendships as a way of encouraging social interaction which is said to precede cognitive development.

The school should **organize parties at school for the students to eat, dance and interact with one another** hence helping them express their emotions and energy through dancing and doing performances.

Parents, teachers and counselors should involve adolescents in a variety of activities some of which can make them utilize their libidinal energy. These activities could include drama, sports, watching videos, music among others

Parents, teachers and counselors should **freely discuss sexual matters with adolescents** to address the dangers of early sexual activities that lead to the issues and diseases like HIV/AIDS, early pregnancies and unplanned babies (Wagner, 2005).

Parents should **be supportive, honest and understanding** when teaching adolescents about sex. This will introduce them to the responsible role of parenthood which makes a more educated community and generation.

Since they desire recognition for their efforts and achievements, the teacher needs to appreciate the learners through rewarding the best performers for instance bursaries, gifts and a word of thanks as a way of recognizing them hence motivation.

Teachers should be **flexible while teaching, give the adolescent learners some break** to stretch themselves during teaching so as to make them be refreshed and ready to learn more.

**ADULTHOOD**

According to Perlumutter and Hall in 1985, adulthood is a portion of life after maturity. Maturity is attained biologically when a person is able to reproduce, but Psychological maturity comes when a person reaches a certain mental and emotional level. The adult can adapt new to new situations; think about the future and other complex issues. On the emotional level, the adult can commit himself or herself to intimate relationships (Erikson, 1980a). Socially, maturity is reached when a person assumes family and work roles whereas in the Legal perspective, maturity comes when a person receives various legal rights like, joining the army, taking alcohol, driving, and voting among others.

In general and more acceptable line, we define adulthood according to the legal and biological perspectives. Different countries today have different legal ages for adulthood ranging from as low as 16 years of age to 20 years of age. Adulthood is often subdivided into the periods of **young adulthood (Early Adulthood – 19 to 40 years of age), middle adulthood (40 to 65 years of age), Old age (beyond 65 years) (Perlmutter & Hall, 1985).**

**Characteristics of the Adulthood stage of development**

**Self-direction:** Adults feel the need to take responsibility for their lives and decisions and this is why it’s important for them to have control over their learning. Self-direction may not be exhibited by the young adults as they are still transitioning from adolescence but as they grow, a sense of self direction appears through old age to death.

**Practical and results-oriented:** Adult learners are usually practical, resent theory, need information that can be immediately applicable to their professional needs, and generally prefer practical knowledge that will improve their skills, facilitate their work and boost their confidence.

**Less open-minded and therefore more resistant to change:** Maturity and profound life experiences usually lead to rigidity, which is the enemy of learning. Young adults are sometimes flexible and can be taught different ways of doing things whereas middle and old aged people are rigid and hard to teach to their well established character.

**Slower learning, yet more integrative knowledge:** Aging does affect learning. Adults tend to learn less rapidly with age. However, the depth of learning tends to increase over time, navigating knowledge and skills to unprecedented personal levels.

**Use personal experience as a resource:** Adults have lived longer, seen and done more, have the tendency to link their past experiences to anything new and validate new concepts based on prior learning. This helps them to be better at decision making due to their cognition.

**Motivation:** Learning and other activities in adulthood are usually voluntary. It is a personal choice to attend school, in order to improve job skills and achieve professional growth. This motivation is the driving force behind learning.

**Multi-level responsibilities:** Adults have a lot to juggle; family, friends, work, and the need for personal quality time. This is why it’s more difficult for an adult to make room for learning, while it’s absolutely crucial to prioritize.

**High expectations:** Most of the adults have already or are by now developing their character and they have expectations from that they require from the people around them or their leaders and educators in particular. These high expectations are mostly due to the cognition that they have gathered all round.

**Memory Loss:** Adults especially the middle and old aged people tend to forget simple and complex things. This poses a challenge to them as they cannot grasp some concepts of even names of new people.

**Implication of Characteristics adulthood to teaching and learning**

Teachers and instructors of adult people should give reasonable tasks and allocate responsibilities to the adult learners to make them feel responsible and contributing something to the progression of the teaching and learning process.

Teachers should be able to introduce both classical and operant conditioning to adult learners since they take long to register the result of the stimuli (Perlmutter & List, 1982). This implies that conditioning can help them register different stimuli and their results hence learning as opposed to verbal learning.

Educators should consider being patient and extending the time of studies for the adult learners. For the young adults, they need less time compared to the middle and old aged people implying that teachers should always be patient with the learners.

Since they have a lot to juggle, an instructional designer needs to create a flexible program, accommodate busy schedules, and accept the fact that personal obligations might obstruct the learning process.

It is important to create a course that covers their individual needs and have a more utilitarian content since they want to learn things that applicable to their situations instead of theoretical concepts that may need a lot of explanation.

Teachers should be able to devise means of bearing with the rigid characters of the adult learners for example, through counseling; educators can influence the adult learners to accommodate the new knowledge concepts diverting them from their rigid nature.

Teachers need to create clear outlines for the content that is to be taught to the adult learners clearly elaborating the aims and relevance of the content. This makes the learners to be at ease knowing what they are supposed to cover.

It is crucial for the teachers of adult learners to tap into a learner’s intrinsic motivation with the right thought-provoking material that will question conventional wisdom and stimulate his or her mind.

Teachers should always form classes with adults that have similar and different life experience levels, encourage discussion and sharing, and generally create a learning community consisting of people who can profoundly interact.

Teachers should always be willing to make numerous repetitions for the adult learners, especially in the middle and old aged groups. This can help them grasp different concepts after numerous repetitions due to their memory loss.

**DEATH AND DYING**

According to Perlmutter and Hall in 1985, death is defined as when breathing and heart beat stop. Life sustaining equipment can keep lungs and the heart functioning for months while physicians fight to reverse an underlying condition that would bring death without technological support. The arrival of **clinical death,** marked by termination of spontaneous breathing and heart beat, is sufficient to determine the end of life. When the **brain dies**, even if the other organs are still functioning, an individual is considered dead.

Death and dying can occur at any point in life. Throughout the life-span of a human being, from prenatal to old age, death can easily fit itself in and the life of a person ends. The main implication of this is that all individuals at all levels and stages of development must be prepared to die at any time.

**Characteristics of Death**

**Sudden in nature:** In most cases, death and dying are sudden; they can happen at any point or stage of development of an individual. Miscarriages happen to pregnant mothers, car accidents happen everywhere and even sudden death at night in one’s bed can happen. Young adults think about time as the years that have elapsed since birth; by middle age, adults begin to think about time as the number of years they have left to live (Neugarten, Crotty, & Tobin, 1964).

**Universality:** Death is for the entire universe. There is no creature in the universe that is out of death’s reach. It is a universal law that all that breath, at one time shall lose their breath. Death is a universal fear that can be faced only with the traditional resources of community,  
religion and ritual (Walter, 2002).

**Inescapable:** There is nowhere to run to from death. Even if a person builds a very strong house of banker that he or she can hide from death, eventually at a certain time, it strikes and life ceases.

**Imminence:** Death is always around us (Reimanis & Green, 1971). All animals, human beings, plants, insects and any other living creature on the earth is susceptible to death. There is no living thing that can be exempted from death and when it strikes, nothing can be done.

**Unstoppable:** Death cannot be stopped. Even if a person tries as much as possible to stop death, it happens eventually. It is advances and strikes without any hindrance and it cannot be bribed.

**Restless:** Death does not rest. According to the world Factbook produced by the Central Intelligence Agency about the death and birth rates in 2008, there are 8 deaths per 1,000 population, 55.3 million people die each year, 151,600 people die each day, 6,316 people die each hour, 105 people die each minute, nearly two people die each second and this happens again and again over years and decades and centuries. It does not cease to torment the living individuals all over the world.

**Fearfulness:** The fear of death makes human beings not even think about it as individuals may even fail to do other things in life when they get the notion that they are about to die. For example, some people become traumatized when they receive HIV/AID test results after realizing that they are positive.

**Die with nothing:** There nothing that a person takes with him or her to death. As the birth of a person or the formation of an individual starts with only two cells uniting to form a being, all humans die with nothing. Death takes nothing with them.

**Painful:** Death is both painful to the individual himself and to the loved ones. The pain caused by death may not be physical to the body but it yields tears and grief amongst the living and the dying. Among adults of all ages, fear focus first on the dissolution of the body, the on the end of all experiences, the pain of dying, an unknown future, and the grief of their families (Diggory & Rothman, 1961).

**Implications of death to the teaching and learning process**

**Holistic Education:** Teachers and other educators need to teach the learners all things regarding their lives, spiritual growth, physical development, mental development and social development so as to live in harmony with other people and the nature.

**Metaphysical Education:** Learners need to know that there is a world beyond the one that we see with our eyes. There is a perfect world which should be target as we live in this world. Learners are supposed to know that this world exists which is beyond the human comprehension.

**Awareness and Preparing for death:** Learners need to be aware that as we live, there is a high chance of not seeing tomorrow. This should be done in order to prepare them for the uncertainty of death. Death comes at any time and there is no specific age that is exempted.

**Moral and ethical education:** Teachers should establish to their learners that there is judgment and most certainly, consequences and repercussions for their actions. This keeps them under check to observe moral and ethical guidelines well knowing that even after death; they shall be held accountable for their actions.

**Punishment:** Teachers need to set punishment for different offences. This should be aimed at making sure that learners are kept in check and diverted away from wrong doing as a way of preparing them for death when they are in right terms with their neighbors and the creator.

**Promoting health and hygiene:** Education should comprise of contented related to the wellbeing of the learners in areas of health through teaching them how to observe proper hygiene and maintaining good health through nutrition, avoiding habits like smoking and taking alcohol and going for regular medical checkups. This is to prevent deaths related to health complications.

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| **Name** | **Part To Present** |
| **Lugayavu Epaphradito** |  |
| **Najjemba Josephine** |  |
| **Kyambadde Herbert** |  |
| **Asingura Phiona** |  |
| **Nakawoya Jane** |  |
| **Adong zelindah Harriet** |  |
| **Nanyonjo Marian** |  |
| **Nalukenge Josephine** |  |
| **Nalule Lilian** |  |
| **Mwanje Alex** |  |