

EDF 103:	Psychology of Adolescence	139
Unit 1:	Meaning of Adolescence and Developmental Tasks	140 – 145
Unit 2:	Physical Characteristics of Adolescents	146 – 151
Unit 3:	Intellectual Characteristics of Adolescents	152 – 157

EDF 103: PSYCHOLOGY OF ADOLESCENCE

INTRODUCTION

In your previous study of Education Psychology, you have acquired some knowledge of child development. You have come across the main stages of human development, namely, infancy, childhood, adolescence, and adulthood. In this Module, we shall examine the adolescence period fully. This period happens to coincide with the secondary school years in Nigeria.

Every stage of development has its special and unique problems. As a secondary school teacher, you need to know and understand the growth patterns of adolescents and the problems that may arise from them. You also need to know the development characteristics of adolescents.

As we go through this module, you should constantly reflect on your past experiences and feelings when you were an adolescent. Such reflections will help you empathize with the present students and be able to give them realistic help and support. You should also be able to direct learning experiences to fit their needs and aspirations.

The module consists of four (4) units, namely: *Meaning of Adolescence and Developmental Tasks*; *Physical Characteristics of Adolescents*; *Intellectual Adolescents*; and *Emotional Characteristics of Adolescents*.

OBJECTIVES

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

- (i) give a precise meaning of adolescence.
- (ii) mention five developmental tasks adolescents.
- (iii) explain how teachers could assist adolescents in successfully accomplishing the developmental tasks.
- (iv) describe the physical changes that occur in adolescence.
- (v) discuss the intellectual changes that occur during adolescence.
- (vi) discuss the educational implications of the emotional changes associated with the adolescent period.

UNIT ONE: MEANING OF ADOLESCENCE AND DEVELOPMENTAL TASKS

INTRODUCTION

In this unit, the meaning of the term adolescence will be explained from the point of view of Education Psychology. The physical changes that occur during the period and the implications of the changes for education are highlighted. The need for you as a teacher to assist the adolescents under your care to cope with the demand of the period is stressed. Some hints have been given on how you could go about doing this.

OBJECTIVES

- (i) explain the meaning of adolescents and adolescence. Describe two to the changes;
- (ii) list five characteristics of adolescents and describe two in detail;
- (iii) identify major physical changes in adolescents and the role of the teacher in helping the adolescents adjust to the changes;
- (iv) discuss the educational implications of the adolescence period.

HOW TO STUDY THIS UNIT

- (a) Carefully read the introduction and summary sections of this unit.
- (b) Then read through the entire unit, section by section.
- (c) Note the unfamiliar words and look them up in the dictionary.
- (d) Attempt all the activities given and the assignment as well.

MEANING OF ADOLESCENCE

Adolescence is a period in life between childhood and adulthood. It is defined so by Blair, et al (1975), as “that period in every person’s life that lies between the end of children and the beginning of adulthood”. The authors see adolescence as both a biological and a social process.

Ozigi, et al (1978), on the other hand define adolescence as “a physical, emotional and mental process, which manifests in late childhood to the beginning of adulthood”. According to them, the growth and development of adolescents is influenced by a number of factors among which are nutrition and environment.

Richard Lansdown and Marjorie Walker, (1996), on their part distinguished between adolescence and puberty. The two concepts, they argued are erroneously used synonymously. They maintained that puberty comprises a “series of physical and physiological changes which convert children into adults, capable of reproduction”. Adolescence on the other hand they defined as the process of growing up both physically and psychologically which starts with puberty and ends up with adulthood. It is the period when

the maturing of the sexual organs (puberty) begins and continues to adulthood; (12 or 13 years of age until 18 years).

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

Initiation Ceremonies Making the Onset of Adolescence

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

Margaret Mead, (1962), who recorded several initiation rites, claimed that the ceremonies served as a time when the young persons are educated on the kind of behaviour or attitudes expected of adult members of the communities. It is a method of socializing boys and girls who are taught rules, values and role differentiation etc. For instance, in most cases, the older women give instructions to girls on appropriate sexual behaviour, marriage, childbirth, and food production activities. Some of the initiates Mead interviewed after the ceremonies, confessed they gained self-respect from other members of the society, both older and younger. Some of the boys, for instance, claimed that they stopped cursing, fighting and playing childish games after the event.

ACTIVITY I

1. Reflect on the time when you were an adolescent, make a list of things that you would have liked explanations about at the time. Ask whether the present adolescents are passing through this phase of lack of information. Make notes on their responses and explain how you would take care of this lack of information.
2. Write about any initiation ceremony in your community or anywhere in Nigeria, for example, the “fattening room” initiation ceremony in Cross River State, include what the ceremony is supposed to teach the initiates. Discuss your findings with adolescents in your area.

OR

3. Give your class an assignment to write about any initiation ceremony they know, (they can ask questions and write down what they are told.). Collect and staple the corrected papers for class reading.

DEVELOPMENTAL TASKS OF ADOLESCENTS

The adolescence period is described as a time of crises. The adolescent has the physical capabilities of the adult but is treated like a child since he/she has to depend on parents and other adults for economic support. At a time the adolescent cannot get license to drive, nor vote in elections. In other circumstances that same person is told not to behave like a child but “be a man”.

Such confusion of roles may result in general unhappiness, leading to drug addiction, suicide and other socially maladjusted behaviours. Understanding the situation of the adolescents by teachers, parents and other adults, can help the adolescents successfully overcome their frustrations.

To be able to eventually transit into adult roles with minimum problems, the adolescents must go through some developmental tasks. Robert J. Harvinghurst, (1952), did a comprehensive study on specific development tasks, which should be accomplished from infancy, to old age. The infant, for instance, must learn to walk, to talk and eliminate waste products from the body. At middle childhood, the child must learn the skills of playing games, reading and writing.

Harvinghurst, set out the vital tasks that the adolescents must deal with before successfully transiting from adolescence to adulthood. These eight development tasks are presented below:

1. **Achieving new and more mature relations with age mates of both sexes**

They must be allowed to mix freely in the classroom to be able to develop understanding between both sexes.

2. **Achieving masculine and feminine roles**

They must know how to dress and behave like male and female and adults and be able to perform masculine and feminine roles e.g. farming and cooking.

3. **Accepting one’s physique and using the body effectively**

They must come to accept their physical features otherwise they cannot have a smooth transition to adulthood. Adolescents should be made to understand that physical does not matter but how one uses it effectively to excel.

4. **Achieving emotional independence from parents and other adults**

The need to achieve emotional independence from parents and other adults in order to have a sense of self worth and maturity. Teachers should give self-directed assignments and tasks to the adolescents. Give them the opportunity to take part in running the school or community affairs.

5. **Prepare for marriage and family life**

Having a stable home in preparation for setting up a family is essential for transiting to adulthood. Establishing a loving relationship with a member of the opposite sex in

marriage. Teachers should arrange family life counseling for both sexes, and teach home management and childcare to girls, if not to both.

6. Prepare for economic life

The adolescent need to find and adopt an economic activity on which he/she will depend for sustenance and maintaining the family. Teachers should give guidance and counseling on selection of jobs and career. Collect sufficient information on different vocations and skills development programmes.

7. Acquiring set of values and an ethnical system as to guide behaviour for developing an ideology

Here the adolescent needs to have a set of beliefs and values, which will guide his/her behaviour in life. This is sometimes referred to as a acquiring an “ego-identity”. This means understanding who one is, why he/she is in this world, and his/her mission in life. Without this, one will be aimless in life. Teachers should act as role models. Encourage development of set values, which guide behaviour.

8. Desiring and achieving socially responsible behaviour

To transit into adulthood, the adolescent needs to make the effort to behave in responsible ways and take on responsibility as required by the society. In turn, the society accepts him/her as someone to rely on and who is responsible.

Most of these developmental tasks are handled within a space of about ten years or less. No wonder that some of the adolescents experience intense conflicts. If lacking in these tasks can cause problems for the adolescents, schools should include them into curriculum. The school should not only concentrate on intellectual development, or in providing support in helping the adolescents make a successful transition to adulthood.

NEEDS OF ADOLESCENTS

The Physical needs

The physical needs include food, water, exercise, rest, sex, temperature regulation and evacuation of waste from the body. The physical needs are very important. Without satisfying these needs one cannot think of other needs. Our hunger has to be satisfied before thinking of learning or other achievements.

Personality need of the adolescents

After the physical needs, the personality needs come next. These are the needs for status, independence, achievement, and a satisfying philosophy in life. The need for status: the adolescents crave to reach adulthood. Status is very important, especially among their peers. They do not want to be recognized as children any more. The secondary teachers who want to catch the attention of students should realize this need by treating the students as young men and women not children. In turn, they should also be encouraged to behave as responsible young adults.

Need for independence

Teenagers want to be free from parental restrictions. They would want their space at home, they would want to keep their own things, plan their activities and to a good extent take their own decisions.

Generally speaking, adolescents would like to run their lives. They would resent parents coming to school to inquire about their progress. These adolescents will think the inquiry means they are not able to take care of their own affairs. They will not want to be “overprotected”. Adolescents that are treated as young adults tend to display some adult responsible behaviour.

Need for achievement

Everybody at times does something worth commending, that particular act should be recognized. Slow learners and those not interested in school, should be praised when they do something good. Reward instead of punishment is a great motivating device in producing learning and disciplined behavior.

Need for a satisfying philosophy of life

It is during the adolescence period that children develop interest in the meaning of life. They are interested in the truth, ideals and religion. The adolescents will not want gaps about the purposes of life. A satisfying philosophy or set of beliefs tends to provide ease of mind and psychological security. Religious conversions, radical political activities at this time are very common. Knowing this, teachers should be able to guide the adolescents to make rational decisions affecting their lives.

ACTIVITY II

1. Define adolescence and explain the importance of the study of adolescence to the teacher.
2. Mention four (4) adolescents’ needs and outline their implications for schooling.
3. Mention four (4) developmental tasks of adolescents and explain the role of the teacher in guiding students on how to cope with the tasks.

SUMMARY

- Adolescence period is a transition between childhood and adulthood. Several psychologists have given various definitions. All indicated that the period begins with puberty and ends when the adolescent has attained economic independence and is recognized as an adult.
- Some societies mark this period with initiation ceremonies. Development tasks and needs of the adolescents must be supported by the school curriculum to reduce

confusion and conflicts that the adolescents go through. This will also guide adolescents' successful transition into adulthood.

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UNIT TWO: PHYSICAL CHARACTERISTICS OF ADOLESCENTS

INTRODUCTION

As you have seen already, the adolescence period is a time when major qualitative changes occur in a short period (mainly between 11 and 18 years). These changes create intense psychological problems which, when solved successfully, the individual enters adulthood. This period is usually referred to as a period of storm and stress harder to cope with and accomplish the developmental tasks, which you saw in the last unit, adolescents need help and support. That is why our role as teachers is very important at this stage.

In this unit, you will be presented with the physical changes that occur during adolescence and their implications for education.

OBJECTIVES

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

- (i) differentiate between the terms “puberty” and “adolescence”;
- (ii) explain the physical changes that occur in boys and girls during adolescence;
- (iii) explain the meaning of “early” and “late” developers;
- (iv) explain the effects of early and late development on the behaviour of adolescents;
- (v) mention ways teachers can assist adolescents in coping with the changes occurring in the adolescence period.

The physical characteristics

The physical development of adolescents starts with the onset of puberty when the girl starts menstruating and the boy, the production of reproductive sperm.

Adolescence and Puberty

Although the term “adolescence” and “puberty” is used interchangeably, they are really not the same thing.

Adolescence

Adolescence “is the process of growing up, both physically and psychologically ending in adulthood”. (Landsdown, et al, 1991). Chambers Encyclopedia describes adolescence as a period of life between childhood and adulthood during which, rapid development occurs in the reproductive organs and secondary sex characteristics e.g. development of deep voice and beard in boys and hair in the private parts of boys and girls.

Puberty

Puberty on the other hand refers to the onset of adolescence, which generally occurs around the age of 11 – 12 years for girls and at around 13 – 14 years for boys. Puberty comprises a series of physical and physiological changes, which convert children into adults, capable of

reproduction. These include a 'growth spurts' alteration in body proportions and development of sex organs.

The onset of puberty is not an abrupt event. During the years leading to puberty, there is a gradual increase in the release from pituitary gland at the base of the brain of hormones (chemicals) in sufficient concentration, making the sex organs to develop. This is what is referred to as onset of puberty.

These developments may vary depending on heredity and the environment in which the adolescents live, especially what they eat, medical care, hygiene etc.

Growth Spurt

This is a sudden and rapid shooting up in height. There is variation in age as well as in the order of events in puberty.

Girls generally start growth spurt earlier than boys. For a brief period, girls may be taller than boys of the same age. Girls may start their growth spurt at about 11 years but grow fastest between 12 and 13 years and may slow down by the age of 14.

Boys' growth spurt at this time is slower by 2 to 3 years. They usually grow faster at about 13 years and fastest at 14 years and slow down by age 16. During the growth spurts a child may put on about 10cm or 4 inches in a year. There are, of course, exceptions to this rule.

Growth of Bones

There is a rapid growth of bones at the early and middle years of puberty, which later slows down. At this stage, muscles grow up and stretch covering the growing bones. In the early stage of puberty, the legs and arms grow un-proportionately, almost twice as fast as those of the trunk. That is why the adolescents look leggy.

The bones in the head continue to grow during adolescence, the overall shape of the face changes altering its width; particularly in boys. Their lower jaws become bigger.

Puberty in girls

In girls, puberty begins with the enlargement of breasts. Generally, there is an increase in weight, since the height increases. Hips broaden and thin layer of fat develops under the skin. That is what gives girls a feminine shape. However, with the enlargement of the breasts, sometimes-uneven development occurs, which later correct itself.

Menstruation starts between the ages of 12 and 14 years but sometime earlier. This may be due to nutrition, as food is essential for growth. Malnutrition affects growth causing low weight and may affect bodily function like the start of menstruation. Adolescents therefore, need a good balance diet for normal growth and development.

The first menstruation tends to be irregular, sometimes accompanied by headaches, irritability and cramps. Once ovulation has begun, sexual intercourse can lead to pregnancy. Girls need to be told and be prepared for this; otherwise, they may find menstruation very upsetting especially for the early developers.

Puberty in Boys

The first sign of puberty in boys is the enlargement of the testicles, which generally occurs around the age of 12 years. There is however, as in the case of girls, a wide variation in the age of onset of puberty. Pubic hair appears at the same time with underarm and facial hairs following later.

At around 13 or 14 years, boys also begin to put on weight, height and muscles as mentioned above in growth spurts. The shoulders start to broaden and testicles begin to produce sperm. The ejaculation associated with “wet dreams” occurs at night”.

Furthermore, the voice of adolescent boys changes and “cracks” around this time to the embarrassment of the boys. Some who have wished for a career in singing may have to drop out until adult voice is achieved.

Early and Late Development

Developing earlier or later than friends may lead to complex. For example, developing early can result in great pressure on the children because emotionally they may not have reached that stage in development. The late developers also have problems, and may feel inferior to their contemporaries, if they do not show the bodily changes expected of them.

Developing earlier or late, therefore may lead to complex or emotional confusion. Early developers of both sexes tend to be given more responsibilities and are expected to take more responsible decisions. They may find that they are in conflict with parents especially girls who try dressing and making up as adult. This may make the girls feel self-conscious and less confident.

Late maturing boys on the other hand, may be less distracted from schoolwork and therefore tend to do better academically. They may be less successful in sport and feel left out socially. On the positive side, it is found that late developers of both sexes tend to have stronger sense of knowing who they are.

PHYSICAL CHANGES IN ADOLESCENCE AND THEIR EFFECTS

The Rapid Physical Changes and Nutritional Needs

Observed how some adolescents around you eat. You will notice that they eat much more than others that are not adolescents like fully-grown adults or children. The reasons being that adolescents need extra nutrition to sustain their rapid growth rate. According to Siam, et al, (1986), 13 to 16 years old boys need 200 more calories of energy per day than the average adult make, and the older teenagers need 800 more. Therefore, nutritional needs of adolescents should be adequate and balanced, if we expect good academic performance from them.

Most adolescent late developers also need nutritional therapy to achieve their normal height and catch up with their colleagues. Children tend to reach the average height of their parents or even grow taller, provided their nutrition is adequate and balanced.

Furthermore, rapid physical growth that accompanies adolescence means that certain strains may be imposed on the young persons resulting in restlessness and fatigued if adequate rest is not allowed.

Effect of Changes in Primary and Secondary Sexual Growth

If a girl begins menstruating early and is unprepared, it will come as a nasty surprise and upsetting. A girl should be prepared in advance for the event, and be assured. She should know that it is entirely a natural happening. Moreover an early developer should have prior knowledge, about human reproduction and that she is capable of becoming pregnant, since a well-matured adolescent girl can be attracted to the opposite sex.

Adolescent girls must be made to know the expectations of the society on them. For example, in most societies, and cultures permissive sexual behaviour by adolescents is not tolerated. Some form of sexual education is usually considered necessary. This may take place in traditional or religious institutions, schools, at home or any other arrangement acceptable to the society. In this way, the adolescent can learn to reconcile her own growing sexual awareness with socially acceptable sexual behaviour.

Educational Implications

- School must support the attainment of developmental tasks of adolescents if the adolescents are to completely adjust and become successful in their adult life. For example it is important for schools to incorporate things like preparation for family life and career counseling in school curricula.
- Respect adolescents' desire for independence from parents and other adults by giving them less command and encouraging them to following rules on their own initiatives. Allowing students more opportunities to participate in organizing their own learning activities. Teachers should make students realize that while physical appearance is important, it is not the only quality that should be emphasized. Responsible behaviour is also very important.
- The importance of adolescent nutrition should be emphasized in school and at home.
- School curriculum should allow time for resting, relaxation and recreation for their fast growing bodies to recoup.
- School has great responsibility to help the adolescents know how to handle their sexual needs and understand the changing development of their sexuality. The school can organize sex education, which could incorporate courses from biology, health science, health education, religious, moral education and guidance counseling.

Durojaiye (1976) made suggestions as to why sex education is very necessary in school. The objective are as follows:

- To give correct and adequate factual information and understanding of sex.
- To cultivate correct functions to sexual experience.

- To teach children continuously socially acceptable ways of expressing sexual behaviour.
- To cultivate in children self-respect and self-control and consideration for others.
- To introduce children to the role of parents.

In addition, sex education programme in Nigerian schools should include the learning about harmful Genital Mutilation (FGM), harmful delivery consequences including Vesico Vaginal Fistula VVF), teenage pregnancies, which UNICEF/Nigeria indicated are wide spread. HIV/AIDS prevention should also be included with emphasis on abstinence.

ACTIVITY I

1. Describe the changes that occur in girls during puberty.
2. Explain as accurately as you can the meaning of:
 - Growth spurts;
 - Early developers.
 - Late developers.
 - Adolescence.
 - Puberty.
3. Discuss with a group of adolescents what is meant by “initiation” ceremonies, and the advantages and disadvantages of such.

SUMMARY

- The onset of adolescence starts with puberty. Puberty is a period of rapid development, mainly physical especially in the sexual organs. This is called growth spurts. Other rapid physical growth includes the growth of bones.
- The effect of this rapid growth result into extra nutritional needs to sustain the growth. The adolescents also need information and guidance to overcome the confusion they experience because of the sexual changes happening in their bodies. School should arrange guidance and counseling sessions for them and incorporate sex education into the curricula.

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UNIT THREE: INTELLECTUAL CHARACTERISTICS OF ADOLESCENTS

INTRODUCTION

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

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

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

OBJECTIVES

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

- (i) describe the main features in Piaget's and Bruner's theories of cognitive development;
- (ii) describe the changes in cognitive ability that occur in adolescence;
- (iii) discuss the educational implications of the changes in cognitive ability that occur during adolescence.

Cognitive Development by Jean Piaget

Jean Piaget was a Swiss zoologist, whose studies had great implication for education. Piaget studied children including his own daughters and came up-with stages of the growth of cognition (thinking) in children as follows:-

- | | |
|-----------------|---|
| <i>Stages 1</i> | The sensory-motor (from birth 2/3 years of age) |
| <i>Stages 2</i> | Preoperational (2 – 7 years of age) |
| <i>Stages 3</i> | Concrete operation (7 – 11 years of age) |
| <i>Stages 4</i> | Formal operation (12 – adulthood) |

Sensory-motor Stage (Birth – 2/3 years)

Piaget believed that cognitive activity at this period is based mainly on the child's immediate experiences through the interaction of the senses and the environment. During the interaction of the first few months the child, is able to control his/her environment by making physical movements. When the child kicks the legs, the parent plays with the child. So the child continues to kick its legs in order to make the parent play with it. This is called "*circular*" reaction.

Using in-built influences however, he developed patterns of behaviour, which we know as *schema* (and plural *schemata*). Through such schema, the child integrates fresh experiences into what he already knows. This process is known as assimilation and with further contact

the child modifies his or her experiences enabling him or her to understand that objects in the environment have independent existence out of the human body. The process of constant modification and adjustment is known as *accommodation*.

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

Preoperational Period (2 – 7 years)

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

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

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

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

The Concrete Operations Period (7 – 12 Years)

The concrete operational stage marks the overcoming of the deficiencies of the earlier period and maturing. Two important abilities become prominent at this stage. First is the concept of conservation. This is the ability of the child to realize that the quantity of an object does not change even when its shape changes. So the quantity of water remains the same no matter the shape of the container.

The second important manifestation shown by children during this stage is an understanding of the concept of reversibility. According to Piaget, unlike the child in the previous period, they are now able to think logically. So having attained the ability to think backwards from point *A* to point *B*, and then back to point *B*, the child can now do subtraction and

multiplication. However, there is difference between this stage and the next, in that the child cannot think in abstract logical terms.

Formal Operational Stage (from 12 through Adulthood)

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

Cognitive Development Theory by Jerome Bruner

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

Enactive Mode

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

Iconic Mode

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

Symbolic Mode

In symbolic mode of thinking, action and image are translated into language. Three methods of representation are:

The wordless messages of **enactive level** of communication. A picture often tells a thousand words: **the iconic level**.

Language – **the symbolic level**.

Cognitive Changes in Adolescence

1. ***Changes in Reasoning***

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

2. ***Increasing Objectivity of Thought***

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

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

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

Sex Difference in Adolescents' Cognition

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

Educational Implications

As teachers we must take into account the relevance of Piaget's and Bruner's theories and apply them for effective teaching and learning.

- **Activity and Cognitive Growth**

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

- **Curriculum and Cognitive Development**

Curriculum should not take cognitive development for granted but should provide specific educational experiences based on children's developmental levels and ability.

This is particularly important at the formal operational stage simply because they have reached formal logical thought processes does not necessarily mean they can automatically think logically. Problem solving should be encouraged based on logical scientific methodology, and where possible with models that will help to conceptualize the problem.

- **Learning Materials**

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

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

ACTIVITY I

1. Define cognitive development.
2. Outline stages of cognitive growth by Piaget.
3. Mention two educational implications of Piaget's theory of cognitive development.

SUMMARY

- The cognitive development theory of Jean Piaget has far reaching implications for the learning of children. His four stages of cognitive (intellectual) growth are sensory motor (from birth to 2/3 years), preoperational stage (2 – 7 years), concrete operation from (7 – 11 years), and formal operation (12 – adulthood). The concrete operational stage is divided into two, i. e. preconception (2 – 5 years) and intuitive stage (5 – 7 years).
- Jerome Burner, another psychologist believed that children's cognitive growth passes through three stages. They are the enactive mode, iconic mode and symbolic mode. That the school should take into account the stages of cognitive development and adapt the curricula accordingly to make teaching and learning effective.

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GLOSSARY

- Cognition** - the process whereby the mind comes to understand facts concepts, principles etc. In general, it refers to thinking.
- Cognitive Development** - the process, whereby the individuals acquire more complex and adaptive ways of thinking and problem solving from birth through adulthood.
- Enactive Representation** - Jerome Bruner introduces this stage in cognitive development and method of communication. During this first stage of development, the child thinks and communicates with “wordless” messages. Young children understand things best at the *action level*. A chair is to sit on and a spoon is to eat with.
- Iconic Representation** - Bruner’s second stage of cognitive growth and mode of communication. At this level, the child visualizes objects or concepts. The child processes an image (icon) that represents objects.
- Symbolic Representation** - this is the third stage of cognitive development and method of communication Jerome Bruner. At the symbolic level, the child is able to translate experiences into languages; words can be used for communication and for representing ideas. Symbolic representation allows children to make logical connections between ideas and to think more effectively.
- Intelligence** - the ability of an individual to solve mental problems with accuracy and speed. More intelligent people are able to think more quickly and more accurately, compare to other people of same age and background.

UNIT FOUR: EMOTIONAL CHARACTERISTICS OF ADOLESCENTS

INTRODUCTION

In this section, we shall examine the emotional characteristics of adolescence by going over the emotional development of childhood first as adolescent behaviours do not come “out of the blue” but grow out of childhood experiences. I suggest that you start the unit by reading “*Emotional development theories and the important emotions of primary school years*” in Module 4, NCE/DLS, Course Book, Education Cycle 1 (EDU 112.7)

Read the following:

- Meaning of Emotions.
- Causes of Emotions.
- Theories of Emotions.
- Wundt’s Tri-dimensional Theory.
- Carr’s Functionalism Theory.
- James – Lange Theory.
- Emotional Maturity.
- Implication of Emotional Development for the Teacher.

ACTIVITY I

1. Write short notes on:
 - Wundt’s Tri-dimension Theory.
 - Carr’s Functional Theory.
 - James – Lange Theory.
2. Write on negative emotions of the school children and their educational implication.

OBJECTIVES

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

- (i) explain the meaning of emotions;
- (ii) describe how emotions are acquired by children;
- (iii) describe the emotional characteristics of adolescents;
- (iv) discuss the educational implications of emotions.

Emotional Reactions of African Children

Durojaiye, (1976), who studied Nigerian and Ugandan children came out with result that Africans grow up to be openly emotional in their behaviour compared to their counterparts in Europe. This is because of the pattern of our emotions. Children all over the world are emotional, but African children, grow up in homes bound by emotional relationship within the extended family system. Our kinsmen and members of our clan can drift in and out of our lives at any time. In daily life, in our homes, emotions are openly displayed, including sadness, love, hatred, jealousy, affection etc. The baby is warmly, fondly, carried about and played with by everyone. All these emotions are learnt from the home.

Emotional behaviour of the first two years of the child is the result of learning and maturation. Learning starts with excitement at first week of life to “affection for other children” by the age of 16 months.

18 Months – 14 Years

Once emotions appear there is a gradual emotional growth, the child is able to smile at six weeks and laugh at six months. He or she can also scream if displeased before 1 year. By the time a child is able to walk and verbalized his or her wishes, the child becomes less emotionally frustrated, but could still show temper tantrums.

As the child grows older the emotional reactions become more frequent but short-lived. Emotional reactions of fear of strange things and people appear with increasing familiarity, and widening of experiences. By the age of 4 years, foundations of emotional control have been laid by the home, through disapproval shown for some emotional displays.

4 – 11 Years (Primary School Years)

Increase in demands being made on the primary school child, produces frustrations and increased fears. As a child learns new motives, new needs and goals, he or she learns to get his or her own way, through developing new emotional techniques, and hiding his or her real emotions by being moody and withdrawn for instance.

Examples of some common emotions of children are: anger, love, affection, happiness, sympathy, jealousy and sadness.

Fear

In babies, fear is caused by unexpected and strange sounds, objects, people or animals. As the child grows, through experiences or listening to lurid and disturbing stories, told by adults, his or her fear grows. Fears, including fear of darkness, water (or non swimmers), snakes, ghosts etc, appear. When the child grows older, he learns to understand his environment and overcome most of his fears. Some cultural beliefs of adults in the community in which the child lives, reinforces some of these fears. The fear of witchcraft may persist up to adolescence, if there is constant warning about such, by members of the society. Talking about repercussions for going against some superstition will condition the child and increase fear. Listening to fearful stories about thieves, murderers, or social humiliations may suggest danger and infuse fear. Most children outgrow unreasonable fears though some persist up to adulthood.

Verbal abuses and humiliation are harmful to a fearful child or even adolescent; rather, children must be reassured and guided to overcome their fear. Children must be told that everyone is afraid of something or the other at one time or another and they often get over it.

Nature of Fear

Fear is a universal protective response, which is essential for our survival, since it alerts us of danger, and gets us prepared to avoid it or deal with it. Fear is both psychological (subjective feeling of fear) and physical (e.g. increase in heart beat). Fear always involves our sensing danger to ourselves, either against our physical well-being or psychological safety.

Mentally we have to develop to a certain level to be able to be alert to handle fears. Sometimes we have to teach children a certain degree of fear, e.g. beware of strangers, be careful of the traffic, do not climb trees, as this is good for us.

Learning of Fear

We all know that fear is learnt. “A burnt child dreads fire”, is a saying we often use showing that a child learns from his or her experiences.

Fear also is contagious, as children learn fears from observing others show fear. Even adults, meeting new situations ask around to see if it is dangerous or not. When children meet new situations they often look first at their parents’ faces for verbal or non-verbal reactions.

Children also learn fear from their contemporaries. Many conditioning, such as, irrational fear of vampires, ghosts and so on. Conditioning means associating an object or situation with another. Fear of death and the world beyond is associated with ghosts and hence children fear ghosts.

Phobias

This is a clinical or pathologically intense fear, often irrational, leading to a compulsive need to avoid that thing or event. The term “*phobias*” in everyday life can be used to refer to fears, which have a rational origin. When fear reaches an extreme pitch it becomes a *phobia*. If, for instance, a dog bites a child, he is justified to fear dogs, but if the fear becomes obsessive, it is characterized as a phobia.

Anger

Frustration is said to be the main cause of anger. Frustrations due to such thing as discomfort, lack of attention, and failure in an activity makes infants angry. Major causes of anger in adolescents include social frustrations and disappointments. For most adolescents, anger is expressed in a controlled way e.g. withdrawal or moodiness, though adolescent boys may seek more attention from their peers, by being aggressive. It is not expected of an adolescent or even an adult, to show anger by shouting. But in communities where open display of aggression is tolerated, people display such behaviour.

ACTIVITY II

1. Do you agree with the fact that Nigerian (African) homes are full of emotion? Use observations of homes in your area to support your argument.
2. What is fear? How do we acquire it? How can we minimize children's fear?

Emotional Characteristics of the Adolescence

Emotional feelings in the adolescence years are deeper and longer lasting than during childhood or even adult. Because of wider, and greater understanding of the situation involved, love anger, hatred and jealousy are deeply felt by adolescents.

They can, however, control their feelings and sometimes hide emotions by substituting them with others, e.g. fear becomes shyness and anger.

The need for independence and social approval are other influences on adolescents' life. Unlike adults who have greater control over their emotions, among adolescents small annoyances produces major emotional outburst, because at this stage, the adolescent is going through other major changes, physically and psychologically.

Psychological Needs in Adolescence: Need for Love and Security

Conger, (1977), reported that adolescents continue to need parental love and acceptance even when they show tendencies of moving towards independence.

The findings of his study also indicate that in homes where adolescents are given appropriate autonomy, they are likely to become more active, outgoing, socially assertive, and friendlier and have more positive self-image.

The need for self-esteem during adolescence is also paramount. The need to belong and identify with a group is very strong. The group's friendship is vital for self-image. This sometimes compensates for lack of love and security from the home. Children whose home reinforced self-concept will find it easier to make and keep friends. A degree of autonomy and independence should be balanced by parental love and security.

The need for new experiences is also vital. New experiences help children to structure their lives and form a more meaningful understanding of the world. Those of them that are engaged in activities that are interesting and rewarding are not likely to engage in destructive or anti-social behaviour.

Praise and recognition are also other needs adolescents aspire for. They need to feel that they can cope and master the tasks they are given. Recognising their effort is therefore very important. Adolescents who can successfully complete academic, social and physical tasks are bound to feel that they are worthy of people's respect, consequently their levels of self-esteem increase.

Physical Aspect of Emotional Development Adolescents

The major physical factor in adolescence is quite simply: sex. Rapid growth during adolescence takes place in the sexual organs as mentioned in previous unit.

All these new sexual experiences are disturbing. Things are happening to their bodies, which the adolescents are worried about. Girls find that their breasts are growing, they begin to menstruate. The boys' sexual organs begin to grow too; their voice "cracks". They begin to pass semen during the night, sometimes called "wet dreams". The adolescents need explanations and guidance about all these. From the community in which the adolescents live like the parents, the family, the peer groups, the teachers, the neighbours and the religious groups, the adolescents are bombarded with their own views and advice on sexual experiences. The newspapers, the magazine, films, radio and television may also give different messages.

Moreover, adolescents have to cope with the strong emotions they do not understand and can hardly control. Girls and boys become attracted to each other and move in-group. They need sympathetic and knowledgeable adults to guide them through the confusing explanations and advice from different sources. As a teacher, you have a role to play in this.

Cultural Implications of Adolescence

It would appear, however, that culture modifies and influences the way information is passed to adolescents. For instance, in African cultures (Nigeria inclusive), the practice is that no individual exists by himself or herself as part and parcel of the community, the membership of which includes younger children, mates, elders, the departed souls and generations to come.

Educational Implications of Emotions

- As a teacher, you should understand the body changes taking place in adolescents and how they affect their emotional reactions. You should make allowances for occasional outbursts and guide them to understand and overcome the effect of these changes.
- Know that an emotional behaviour can be generalized from one situation to another, the school should be a pleasant place to work and play in.

If the ensuing emotional experience is pleasant, it will lead the student to love learning. If failure is greeted with scolding, and corporal punishment, with little attention to motivation, clarity, and relevance, students will dislike schooling. When experience of learning becomes so unpleasant, it creates the emotion of fear and boredom. In such situations, even the bright pupils will fail to profit from learning.

- Emotional reactions such as fear, anxiety, guilt, jealousy and anger can inhibit bodily functions growth and even learning therefore teachers, must learn to satisfy the emotional needs of children.
- Teachers must promote the emotions of love, tenderness rest, joy, pleasure humour and laughter to facilitate mental health among learners.
- Moods created by emotional experiences last for a long time in many adolescents. The moods inhibit their disposition to learn.

ACTIVITY III

1. How can the school and the home facilitate emotional well being among adolescents?
2. Discuss fear or anger as an adolescent emotional reaction. Show how the teacher can help the adolescent overcome any of these emotions.

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GLOSSARY:

- Needs:** What an individual requires, subjectively, for physical or psychological wellbeing.
- Self-Concept:** A person's conception of his or her worth in general and in specific contexts (e.g. inability to do Mathematics, Courtship, Hockey).