CHRIST KING HR. SEC. SCHOOL, KOHIMA
CLASS - 12
SUBJECT: EDUCATIONAL PSYCHOLOGY

Unit II
Growth and Development

I. VSAQ.

1. Define 'Maturation'.
   According to A.T Jersild et al, "Maturation is the process by which underlying potential capacity of the organism reach the stage of functional readiness. This process involves in both type of changes in structure and function. The structural changes were with growth and progressive exercises by structures that provide the ground work for later performances or functions.

2. Define 'Development.
   According to Crow and Crow, "Development is concerned with growth as well as those changes in behaviour which result from environment situation.

3. When can there be a break in 'continuity of growth'?
   There may be a break in 'continuity of growth' due to illness, starvation, malnutrition or other environmental factors or some abnormal condition in the child's life.

4. How do Crow and Crow define 'growth'?
   According to Crow and Crow 'growth' refers to structural and psychological changes.

5. How is maturation related to growth and development?
   Maturation is related to growth and development because it involves structural as well as functional changes.

II. SAQ.

1. Describe briefly the principles of growth and development.
   The following are the fundamental principles of growth and development:
   a. Development is a continuous process: Development is a continuous process. It does not stop at any time. It continues from the moment of conception until the individual reaches maturity
   b. Rate of growth and development is not uniform: It proceeds more rapidly in the early years of life but slow down in the later years of infancy.
   c. Principle of individual difference: A wide differences is found among individual with respect to their growth and development in various dimension.
   d. Development proceeds from general to specific response: In all phases of child development, general activity precedes specific activity.
   e. Principles of integrating: Development involves a movement from the whole to the parts and from the parts to the whole.
   f. Principle of interrelation: The growth and development in various dimensions like physical, mental, social etc are interrelated and interdependent.
   g. Development is predictable: With the help of the rate of growth and development of a child, it is possible for us to predict the range within which his mature development is going to fall.
   h. Principles of development direction: The development is 'Cephalo –caudal' as well as 'Proximo-distal'.
   i. The development is spiral and not linear: The child does not proceed straight on the path of development with a constant or steady pace.

j. Growth and development as a joint product of both heredity and environment: The child growth and development in any dimension at all time is directly or indirectly influence by the forces of heredity and environment.

2. State any two relationships between growth and development.

Two relationships between growth and development are as follows:

a. Growth is one of the parts of developmental process. In a strict sense, development in its quantitative aspect is termed as growth. Development is a wider and comprehensive term. It refers to overall changes in the individual.
b. Growth describes the changes which take place in particular aspect of the body and behaviour of an organism. Development describes the changes in the organism as a whole and does not list changes in part.

3. 'Development can't be measured quantitatively'. Elaborate.

Development refers to the qualitative changes in the organism as a whole. Development is a continuous process through which physical, emotional and intellectual changes occur. It is much wider and comprehensive term than growth.

In Encyclopaedia Britannica, the term development is defined as 'the progressive changes in size, shape and function during the life of an organism by which its genetic potential is translated into functioning adult system'. So, development includes all those psychological changes that take place in the functions and activities of different organs of an organism.

Thus, development implies improvement in functioning and behaviour and have brings qualitative changes which are difficult to be measured directly.

4. Do you agree with the statement 'maturation is a sequential characteristic of biological growth and development'? Give reason in support of your answer.

Maturation is the emergence and development of personal characteristics in an orderly sequence as a result of underlining physical growth. In other words, maturation is a sequential characteristic of biological growth and development. For example, a four-month old baby cannot use language because the infant's brain has not matured enough to allow the child to talk. By the age of two years the brain develops further and with help from others the child will have the capacity to say and understand words. Also, a child cannot write or draw until he has developed the motor control to hold a pencil or pen.

5. Explain the characteristics of maturation.

The characteristics of maturation are as follows;

a. Maturation is the process for describing underlying potential capacity of an individual
b. Maturation means both growth and development
c. It is a complete behaviour of an individual
d. It is an automatic process of somatic, physiological and mental differentiation and integration.
e. It involves both types of changes- structural and functional
f. It is the basis of learning.

6. What are the classifications of changes proposed by Mrs. Hurlock?

The classifications of changes proposed by Mrs. Hurlock are as follows:

a. Changes in size
b. Changes in proportions
c. Disappearance of old features
d. Acquisition of new features.

III. LAQ.

1. Differentiate between growth and development.

Growth	Development
The term growth is used in physical sense. It generally refers to an increase in size, length, high and weight.	Development implies overall changes in shape, form or structure resulting in improved working or functioning.
Growth is one of the parts of development process	Development refers to overall changes in the individual.
Growth may be referred to describe the changes, which take place in particular aspect of the body and behaviour of an organism	Development describes changes in the organism as a whole and does list the changes in parts.
Growth does not continue throughout life. It stops when maturity has been attained.	Development is a continuous process. It does not end with attainment of maturity.
The changes produced by growth are the subject of measurement. They may be quantified an observable in nature	Development implies improvement in functioning and behaviour and hence brings qualitative changes, which are difficult to be measure.
Growth may or may not bring development.	Development is possible without growth
It is directional	It is sequential and progressive
Motor and physical domain play a domain role	Cognitive and effective domain plays a vital role.
Learning does not affect growth	Learning and experience has a lot of impact on development
Individual differences exist among children and it could be treated by physicians and therapeutic techniques.	Individual differences do exist in the learning skills and cannot be improved by clinical method.
It is dominantly determined by heredity	It is determined by learning experience environment.

2. Indicate the factors that affect in the continuity of growth.
   The factors that affect in the continuity of growth can be due to illness, starvation, malnutrition or other environmental factors or some abnormal condition in the child's life.

3. Describe briefly growth and its characteristics?
   The terms 'growth' is used in the physical sense. It generally refers to increase in size, length, height and weight. In Encylopedia Britannia, growth is defined as an increase in size or the amount of an entity. It means growth involves all those structural and physiological changes that take place within an individual during the process of maturation. Growth refers to structural and psychological changes. Thus, growth refers to an increase in physical size of a whole or any of its part that can be measured.
   The characteristic of growth are as follows:
   i. Hereditary factor is the cause.
   ii. Physical factor play a dominant role.
   iii. Expansion in height and weight and its apparent result
   iv. It is quantitative, addictive and augmentative
   v. Growth stops at a particular point in life.
   vi. Growth need not necessarily cause development in all the cases.
   vii. Rate of growth is distinct all unique
   viii. Individual difference in growth is appeared and obvious.

4. What are the aspects of development? Explain.
   (Answer is from page 16).

5. How can you say that maturation is both growth and development?

   Boring et al says, "Maturation means the growth and development that is necessary either before any unlearned behaviour can occur or before learning of any particulars thing or subject can take place.

   Maturation is the process by which underlying potential capacity of the organism reach the stage of functional readiness. It is an automatic process of somatic, physiological and mental differentiation and integration. It involves both type of changes- structural and functional. It is the basis of learning.

6. What are the principles of growth and development?

   The following are the following principles of growth and development:

   a. Development is a continuous process: Development is a continuous process. It does not stop at any time. It continues from the moment of conception until the individual reaches maturity.
   b. Rate of growth and development is not uniform: It proceeds more rapidly in the early years of life but slowdown in the later years of infancy.
   c. Principle of individual difference: A wide individual difference is found among individuals with respect to their growth and development in various dimensions.
   d. Development proceeds from general to specific response: In all phases of child development, general activity precede specific activity
   e. Principles of integrating: Development involves a movement from the whole to the parts and from the parts to the whole.
   f. Principle of interrelation:
      The growth and development in various dimensions like physical, mental, social etc. are interrelated and interdependent.
   g. Development is predictable: With the help of the rate of growth and development of a child, it is possible for to predict the range within which mature development is going to fall.
   h. Principles of developmental direction: The development is 'cephalo-caudal' as well as 'proximo-distal'
   i. Development is spiral and not linear: The child does not proceed straight on the development with a constant or steady.
   j. Growth and development as a joint product of both heredity and environment: The child growth and development in dimension at all time is directly or indirectly influence by the forces of heredity and environment.

7. What are the educational implications of growth and development?

   The education implication of growth and development are:

   a. Education is not only a process and a product of growing, it means growing. Its aims at the fullest possible realization all the potentialities of children. This implies that teachers and parents must know what the children are capable of and what potentialities they possess. It is necessary that their attitudes are helpful, encouraging and sympathetic.
   b. School programmes, procedures, and practices should be adjusted to the growth and maturational levels of children, bearing in mind the individual variations in rates of growth. Science various aspects of growth are interrelated parents and teachers should pay attention to all aspects.
   c. Good physical growth, for e.g. Through the provision of play, games and sports is conducive to effective intellectual development, malnutrition had been found to be important factor that retards development. Hence, teachers and parents should cooperate in cultivating among pupils habit of balanced eating.
   d. In the principles of development have highlighted the importance of 'individuals' differences' from one child to the other and from one stage to another. This fact

justifies the provision of diversified courses for the development of specific talents, abilities and interests and a rich and varied programme of co-curricular activities.

e. Each stage of growth has its possibilities and limitations. This implies that teachers and parents should not demand of pupils or children what is beyond their stages of growth. If they do so, they will only cause frustration heighten tension and nervousness in children.
f. The inter-relatedness of growth demand presentation of integration in an interrelated manner and its integration with action. Since each child grows in his/her own unique way, it is but opposite that parents and teachers should treat each child as a unique individual and provide for special needs and interest.

8. Describe the major difference between growth and development.

Growth:

Hereditary factor is the cause.
Physical factors play a dominant role.
Expansion in height, weight and its apparent result.
It is quantitative, addictive and augmentative growth stop at a particular point in the growth need not necessarily cause development in all the case.
Rate of growth is distinct and unique individual difference in growth is apparent and obvious.

Development :

Development is a result of experience and maturation.
It is a continuous process.
It does not halt at puberty.
It has various aspects.
It is spiral development.
Adjustment with the environment.
Learning is presupposition for development.
It increases the intellectual, moral and social qualities.

9. How can you say that growth and development are related?

The relationship between growth and development are as follows:

a. The term growth is used in purely physical sense. It generally refers to an increase in size, length, height and weight. Development implies overall changes in shape, form or structure resulting in improved working or functioning.
b. Growth is one of the parts developmental process. In a strict sense, development in its quantitative aspect is termed as growth.
c. Growth describes the changes which take palace in particular aspect of the body and behaviour of an organism. Development describes the changes in the organism as a whole and does not list the changes in part.
d. Growth does not continue throughout life. It stops when maturity has been attained. Development is a continuous process. It goes from womb to tomb.
e. The changes produced by growth are the subject of measurement. They may be quantified. Development implies improvement in functioning and behaviour and hence brings qualitative changes which are difficult to be measured directly.

THE END