

integrating many structural

### **Principles of Growth and Development :**

Growth and Development both occurs simultaneously and always follows certain principles. They are –

- (a) Development follows a pattern

- (b) Development proceeds from general to specific response.
- (c) Development is continuous.
- (d) Development is predictable.
- (e) Different areas develop at different rates or Development proceeds at different rate for different behaviour.
- (f) There is correlation in Development
- (g) Each development phase has traits characteristics of its own.
- (h) Many forms of so called 'Problem behaviour' are normal behaviour of the age in which they occurs.
- (i) Individual differences exist in development.

### **1.3 (a) Development follows a pattern :**

Development of every species whether animal or human follows a pattern peculiar to that species. The rate and limit of development are similar for all the members of that particular species. In prenatal development there is a genetic sequence with certain traits appearing in a fixed interval. The same orderly pattern is evident in post natal development, though the individual rate of development may vary more in post natal period than in prenatal period. In case of development in child, the control of the body and the improvement in structure develop first in head then proceeds to different parts of the body. So the development in the upper region of the body takes place prior to the lower region. Similarly, the control of muscles of the trunk precedes the control of the muscles of the arms and legs, the child babbles before he starts talking, he crawls, creeps then stand and walk, he develops interest first in himself than to other children. In this way, development always follows certain pattern which can be changed. There is no doubt about it.

### **1.3 (b) Development proceeds from general to specific responses :**

The next principle of development is that- in all phases of development the child responses are of a general nature before they become specific. In both cases, that is in mental as well as in motor responses, general activity always precedes specific activity. For example,



in prenatal stage, the fetus moves its whole body but is incapable of making specific responses. So in early postnatal life, infants wave their arms in general, random movements before they are capable of such specific responses as reaching for an object hold before them.

In case of emotional behaviour babies first respond to strange object with a general fear. But in the later stage, their fears become more specific and are characterized by different types of behaviour like crying, turning away and hiding etc.

### 1.3 (c) Development is continuous :

One of the principle of development is - that it is a continuous process. It starts from the moment of conception and continue till death but it occurs at different rates – sometimes slowly and sometimes rapidly. Piechowski has emphasized, “Development does not occur at an even space. There are periods of great intensity and dis-equilibrium and there are periods of equilibrium. Development achieve a plateau and this may occurs at any level or between levels”.

Besides, developmental changes do not always go forward in a straight line, sometimes they go backward, as when a child jealous of his younger brother negnesses to babyish ways of doing things in the hopes of winning the parental attention enjoyed earlier. However, in the end these changes lead forward.

Since, development is continuous, what happens at one stage, influences the following stage like the baby cannot take its first step in walking until it has learnt the long process of body control. It is also true in case of speech development, the child at first makes cooer, gurgles, bables like sound before he speaks word. Another example, unhealthy attitudes about self or about relationship with others during the early years are rarely eliminated completely. They are reflected in the individual's outlook on life even in middle and old age. Erikson found that ‘Basic trust’ or ‘Basic distrust’, developed during the babyhood years persist throughout life and influence the person's reactions to people and to life situation.



### **1.3(d) Development is predictable :**

As earlier it has mentioned that every species follows a pattern of development peculiar to that species. Many evidences have shown an orderly predictable pattern in physical development in prenatal and postnatal life have come two laws of the directional sequence of development. That is cephalo-candal and Proximodistal law. Cephalo-candal law means that development spread over the body from head to foot. This is structural and functional development occur first in head region then in trunk and last in the leg region.

Inproximodistal laws, development proceeds from near to far – outward from central axis of the body towards the extremities. In the prenatal period, the head and trunk are fairly well developed before the rudimentary limb buds appear. Gradually arm buds lengthen and develop into hands and fingers. Functionally infant can use their arms before their hands and can use their hands before they can control their movement of fingers.

Studies of intelligence have revealed that the pattern of mental development is as predictable as the physical development. The results of the studies revealed that the major part of the mental growth comes when the body is developing most rapidly during the first 16 to 18 years. There is also a predictable pattern for development of different intellectual functions like memory, reasoning etc. Studies done by Oder for forty years and concluded that 'with few exceptions the superior child becomes the superior adult'. Genetic studies of babies from birth to the age of five years have shown that all young children follows general behavioural pattern and specific areas of development follows predictable pattern.

So it is possible to predict at an early age the range within which the mature development of the child is likely to fall. Knowing what the ultimate mental development of a child will be of outstanding value, in the planning of his education and in helping him to train the type of work suitable for him to carry out.

### **1.3(e) Different areas develop at different rates :**

Development proceeds at different rate for different behaviour.



Development of different physical and mental traits are continuous but are never uniform for the entire organism. If the body is to attain its adult proportion, there is always in equalities in rate of development like the feet, hands and nose reach maximum level of development early in adolescence while the lower part of the face and the shoulders develop slowly.

Like physical traits, mental traits also develop at different rates and reaches maturity at different ages. For example creative imagination develops rapidly in childhood and reaches its peak early in adolescence. On the other hand reasoning develops slowly in the early years of life than the later years. Similarly, note memory and memory for concrete objects and facts develop more quickly than memory for abstract, theoretical material.

### **1.3 (f) There is co-relation in Development :**

It has found from different studies that there is relation between different aspects of development. In one of the genetic studies done by Terman and Oden, concluded that desirable traits tend to go together. There were no negative correlation have found in between intelligence and size, strength, physical well-being or emotional stability.

Gesell observed that there is a relationship between the physical and mental traits. When physical development is rapid, so is mental development. Physical development is marked by changes in body proportions as well as by increase in size and in case of mental development; it is characterized by different rates of growth for memory, reasoning, association and other mental abilities. Similarly the development of language is related to development of speech organs, sexual behaviour depends on the maturing of gonads etc. No evidence contrary to this assumption has not found till today. One cannot find someone who is above average in one trait but below the normal in another trait. Different studies revealed that there is co-relation rather than compensation in development.



### **1.3 (g) Each development phase has its own characteristic :**

Development take place at different stages and each stage has some traits develop more rapidly and more conspicuously than others. Each stage is distinguished by dominant features, leading characteristics which give the period its coherence and unity. For example, the first two years of life that is from birth to 2 years is known as infant stage and at this stage the baby concentrates on his environment, growing control over his body and learning to speak. In the next stage that is from 3 to 6 years, his development is concentrated on making him more social creature. In the late childhood stage that is from 6 to 13 years, a child moves from ego centric to socialised speech and thought, emotional stability take place, self-concept emerges etc.

All children passes through all these stages of development along with the characteristics of that particular stage. So activities should planned, facilities should be given and environment should be created which are conducive for proper development of the child.

**1.3 (h) Many forms of so called 'Problem Behaviour'** are normal behaviour of the age in which they occur. Certain behaviour considered as normal at one stage may not be accepted as normal in different shape of development. Every age certain undesirable form of behaviour which are normally found at that age and are outgrown as the child passes into next stage of development. For example, living is quiet natural and considered as common mode of behaviour just when the child enters the school. Similarly, day-dreaming is quiet normal at early stage of life. So the child's behaviour is to be predicted and understood against the expected behaviour of his age.

**1.3 (i) Individual differences** exist in development is similar to all children, but all children follow the predictable pattern on their own way and at the own rate. So all children do not react the same point of development at the same speed, at the same age and time. Some children differ in their rate of development, going through the sequential steps as expected but at a slower or faster rate than average children. These



differences are occurred because of influence of hereditary potentials and environmental factors. For example all children irrespective of caste, creed, religion, region, country poses same organs have same body constituents, perform the same functions but all instances differ in some degree in both structure and functioning of these organs.

Dobshansky has said 'Every person is indeed biologically and genetically different from every other'. In addition, no two people have identical environmental influences, even identical twins. This means that individual differences are caused by intervals external condition. As a result pattern of development will be different for every child even though it is similar in its major aspects to the pattern followed by other children. Such as physical health depends partly on hereditary potentials and partly as environmental factors like food, sunshine air, climate, emotion etc. On the other hand intellectual development is affected by factors like inherent capacity, the conditional climate, whether or is encouraged to pursue intellectual activities, whether one has strong intellectual drive, whether one has opportunities for experiences and learning etc. In case of personality development, it is influenced by genetic factors as well as attitude, social relationship both in home and outside.

Hence, these two factors - heredity and environment are responsible for this individual difference. There is evidence that of the two factors environmental factors play a more dominant role in producing the differences that do the hereditary factors.

In addition to these principles, there are some other principles like early development is more critical than later development, development is the product of maturation and learning etc.

The study of principles of development is important as the knowledge has scientific as well as practical value. Firstly, the knowledge of development pattern enables parent and teachers to guide the child's learning at appropriate time. For example 'A baby who is ready to learn to walk must be given opportunities to practice walking and encourage the child till the walking skill has been mastered.

Secondly, the knowledge of the normal developmental pattern makes



it possible for parents and teachers to prepare children before time or in advance for the changes that will take place in their bodies, interest on their behaviour. For example, children can be prepared for what will be expected from when they entered school. This preparation will help them to eliminate tensions that arise from new environment to some extent.

Thirdly, knowledge of these principles help psychologist to know what to expect from children, at approximately what ages to expect different patterns of behaviour to appear and these patterns will normally be placed by more mature pattern.

Fourthly, it also help psycholotist to set up guidelines in the form of different scales like height-weight scale, age-weight scale, age-height scales, mental-age scales, and social or emotional development scale. As the pattern of development for all normal children in approximately the same so it is possible to evaluate each child in terms of the norm for that child's age. If development is typical, it means that the child is making normal adjustment to social expectation. On the other hand, if there is deviation from the normal pattern, these may be regarded as changes signal of poor personal, emotional, social adjustment and step can be taken to find out the cause of deviation to solve the problem.

Thus, the knowledge of principles of development help parents, teachers and others who work with children to prepare the child ahead of time for the change that will take place in his body, his interest, his behaviour etc.