**Analyse uses of different Principles of Development in Teaching Learning Process**

**What is Growth?**

Growth can be defined in quite so many ways, which are:

1: a stage or condition in increasing, developing, or maturing the tree reached its full growth.

2: a natural process of increasing in size or developing growth of a crystal.

3: a gradual increase the growth of wealth.

4 : something (as a covering of plants) produced by growing.

However, when we talk about growth with regards of education, the meaning is quite different. It refers to how much students are growing in their proficiency as they move through the school system. A trend is a pattern made over time by the results from a like group. Growth and trend information is important for teachers, education policymakers and policy analysts. Growth is quantitative.

**What is development?**

Development is defined as the process of growth or new information or an event. Educational development is a growing and vibrant field for all the students at various levels of education, defined as: “helping colleges and universities function effectively as teaching and learning communities”. Development is both quantitative and qualitative. It is a continuous process starting from the Womb and ending with the tomb.

Both, Growth and development play and integral part in education. The importance of both cannot be denied as without growth and development, not only in the students and teachers but also in the system of education, we would fail to keep up with the ever-evolving world around us. A continuously growing and developing form of educational process aimed at increasing awareness and understanding of the rapidly changing, interdependent and unequal world in which we live. It seeks to engage people in analysis, reflection and action for local and global citizenship and participation.

**Principles of Growth and Development in Learning Process:**

The changes brought about in an individual by the process of growth and development tend to follow a set of well-defined principles, which are known as the principles of growth and development. This set of principles is defined below also with their use in the learning process.

1. **Principle of Continuity:**

The development follows the principle of continuity which means that development is a continuous process. It starts with pre-natal and ends with death. Development of both physical and mental traits continues gradually until these traits reach their maximum growth. It goes on continuously throughout life. Even after maturity has been attained, development does not end.

1. **Principle of Integration:**

Development thus involves a movement from the whole to parts and from parts to the whole and this way it is the integration of the whole and its parts as well as the specific and general responses. It enables a child to develop satisfactorily concerning various aspects or dimensions of his personality. Example: Child first starts to learn hand movement then finger movement and then learn the movement of both hand and finger together this is called integration.

1. **Principle of uniformity pattern:**

Although development does not proceed at a uniform rate and shows marked individual differences concerning the process and outcome of various stages of development, it follows a definite pattern in one or the other dimension which is uniform and universal concerning the individual of a species.

1. **Principle of interrelation:**

Various aspects or dimensions of one’s growth and development are interrelated. What is achieved or not achieved in one or other dimensions in the course of the gradual and continuous process of development surely affects the development of other dimensions. A healthy body tends to develop a healthy mind and an emotionally stable, physically strong, and socially conscious personality. Inadequate physical or mental development may, on the other hand, result in a socially or emotionally maladjusted personality.

1. **Principle of predictability:**

Development is predictable, which means that with the help of the uniformity of pattern and sequence of development. We can go to a great extent, forecast the general nature and behavior of a child in one or more aspects or dimensions at any particular stage of its growth and development. We can know the particular age at which children will learn to walk, speak, and so on.

1. **Principle of Development is Spiral and not Linear advancement:**

The child doesn’t proceed straight or linear on the path of development at any stage never takes place at a constant or steady pace. After the child had developed to a certain level, there is likely to be a period of rest for consolidation of the developmental progress achieved till then. In advancing further, therefore, the development turns back and then moves forward again in a spiral pattern.

1. **Development proceeds from general to specific responses:**

It moves from a generalized to localized behavior. This can be observed in the behavior of infants and young children. This new­born infant moves his whole body at one time instead of moving only one part of it. The baby waves his arms in general and makes random movements before he is capable of such a specific response as reaching out for a specific object. He makes random kicking with his legs before he can co-ordinate the leg muscles well enough to crawl or to walk. When given an unpleasant stimulus on any part of the body i.e., a pin-prick he reacts with the entire body before he learns to restrict the movement to the particular part of the body which is stimulated. In the emotional field, the baby first responds to all strange objects with a general fear. Gradually, his fear becomes specific. He reaches out for the object as a whole before he can hold its specific parts.

1. **Principle of lack of uniformity in the developmental rate:**

Development through the continuous process, but does not exhibit steadiness and uniformity in terms of the rate of development in various development of personality or the developmental periods and stage of life. Example: A person may have a high rate of growth and development in terms of height and weight but may not have the same pace of mental and social development. Neither all parts of the body grow at the same rate, nor do all aspects of mental growth proceed equally. They reach maturity at different times. For example, the brain attains its mature size around the age of six to eight years. It gains much in organization after that. The feet, hands and nose reach their maximum devolvement early in adolescence.

1. **The Principle of Individual Differences:**

This is a principle that states that, because everyone is unique, each person experiences a different response to an exercise program. Some of these differences may be related to body size and shape, genetics, past experience, chronic conditions, injuries and gender. For example, some people need longer recovery time than others.

1. **Principle of Developmental Direction:**

A principle of development that states that neuromotor organization proceeds from head to foot along the longitudinal axis, and from central to peripheral body segments. Thus, there is a progressive advance of motor control from larger, fundamental muscles to smaller muscles which execute more refined movements. Kuppuswamy (1971) threw light on it claiming that development is “Cephalic-caudal” and “Proximodistal”, these terms can be defined as:

1. **Principle of Cephalic-caudal:**

Development proceeds in the direction of the longitudinal axis. Development from head to foot or toe. That is why, before it becomes able to stand, the child first gains control over his head and arms and then on his legs.

1. **Principle of Proximodistal:**

Development of motor skills to start at central body parts to outwards. That is why, in the beginning, the child is seen to exercise control over the large fundamental muscles of the arm and then hand and only afterward over the smaller muscles of the fingers.

**Uses or Implications of Developmental Principles in Learning and Teaching Process:**

The knowledge of the above–mentioned principles of growth and development may prove beneficial to us in several ways describe below:

* Development is a continuous and non-stop process at all periods and stages of human life. Therefore, we should never give up our efforts to achieve perfection in terms of development in the different dimensions of our personalities.
* The principle of individual differences among children reminds us to understand the wide individual differences at all periods of growth and development. Each child should be helped along the developmental; process according to their ability, strengths, and limitations.
* The principles related to growth and development suggest a pattern or trend for the advancement of children on the developmental path. This knowledge can help us to understand as what is often expected in terms of the right growth and development at a specific developmental stage and that we can then plan accordingly to achieve it by organizing the environmental experiences.
* Principles of proceeding from general to specific responses and the principles of integration help us to develop appropriate learning experiences to achieve maximum growth and development.
* Principles of interrelation and interdependence direct us to make every effort from the very beginning for the all-around harmonious development of the personalities of our child and caution us no to encourage the development of particular aspects at the cost of another.
* The principles of spiral advancement of development help us to make adequate arrangements for subsequent progress and consolidation of the progress achieved during specific developmental stages.
* The cephalocaudal and proximodistal tendencies as suggested by the principle of developmental direction help us to arrange the suitable learning experiences, processes, and environmental set-up so as to accommodate and help the children to grow and develop according to the trend and nature of these tendencies.
* The principle of interaction reminds us to recognize the joint responsibilities of heredity and environment in the development of personality. Genetic make-up is inborn and influences a limited amount of development, so we can provide a suitable environment for a child to take out their maximum growth and development.