

Unit–1

INTRODUCTION TO GROWTH AND DEVELOPMENT

1.1 OBJECTIVES

At the end of the unit, trainee students will be able to:

1. Differentiate between growth and development
2. Explain different domains and stages of development
3. Articulate the principles of a life-span developmental approach
4. Discuss the basic issues involved in child development
5. Identify the factors that influence child development

1.2 OVERVIEW

Development is a process that entails the entire life-span of an individual, from conception to death. Some of us are intrigued to understand how does development evolve over the years, what are the changes that occur and how do they occur during the life-span? A study of all changes throughout the life-span of an individual is referred to as *developmental psychology, developmental science or human development* (Keenan & Evans, 2009). However, when we focus our attention to understand the growth, changes and consistencies, on a rather narrower portion of life-span, from conception through adolescence, we are referring to the study of *child development*.

The field of child development is multidisciplinary, which draws its knowledge from several other fields such as psychology, sociology, anthropology, biology and neuroscience to name a few (Berk, 2013). Likewise, it informs the practices of various experts who are keen to improve the lives of children. These include: educators, pediatricians, psychologists, child care service providers, social service professionals, and parents. In this way, the field of child development has both scientific as well as practical relevance and utility.

While the study of child development is important in its own right, it also informs us about the nature of human development. A better understanding of the growth, changes and stability in the earlier behaviors of life has the potential to inform later behavior, also referred to as *adult behavior*. As we focus on the growth and development of children in this unit, we draw upon the principles of life-span developmental psychology to inform our understanding.

1.3 OVERVIEW OF GROWTH AND DEVELOPMENT

This section provides an overview of two interrelated yet discrete concepts: growth and development. Child's growth and development are complex processes which are influenced by multiple factors and sources. This unit encompasses them in detail.

The terms *growth* and *development* are often used interchangeably or paired up in a rather similar way, which causes ambiguity over their meaning. It is, therefore, important to understand the difference between these two terms right at the outset.

1.3.1 Growth

The term *growth* implies an addition or increase in the bodily aspects that can be measured, for example, height, weight, size, muscles and length (Woolfolk, 2014). It is based on biological processes that naturally occur over a period of time and are relatively not or less influenced by context except for extreme illness or undernourishment. It eventually stops when the body parts reach the peak of their growth.

Overall, growth refers to the natural, spontaneous, specific, genetically programmed and measurable quantitative gains in a human body. Most of the child's physical gains fall within this category. Some of the developmental psychologists also refer to these changes as *maturation*.

1.3.2 Development

While growth refers to the physical changes that an individual undergoes, *development* refers to certain changes that occur within the life-span of an individual, that is, from conception till death (Keenan & Evans, 2009). It not only involves growth, but also entails disintegration and eventually decay (death). However, not all changes are considered as development. Rather, it applies to those changes that appear in orderly ways and are considerably permanent. Most of these changes are qualitative in nature and influenced by context, for example, changes in behavioral, social, moral and intellectual aspects of an individual. Overall, these changes result in better, adaptive, organized and complex human behaviors.

For further details, please refer to the following material:

Woolfolk, A.E. (2014)	<u>Educational Psychology</u> (12th ed.) Pearson India: Dorling Kindersley India Pvt. Ltd.	pp. 42-44
Keenan, T., & Evans, S. (2009)	<u>An Introduction to Child Development</u> (2nd ed.). Los Angeles: SAGE	pp. 3-5

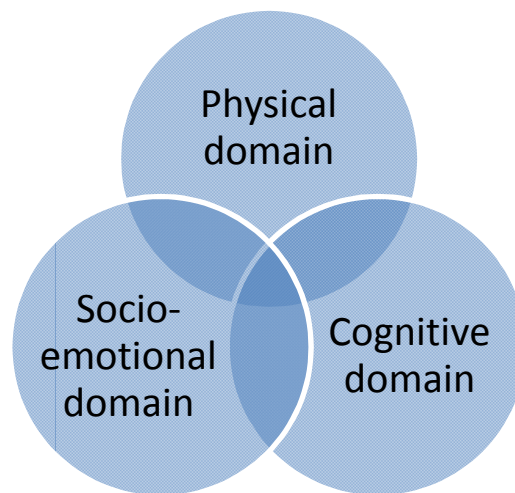
Development has been described in different ways to highlight different aspects. These include: domains of development and stages of development. While the former emphasizes the processes that characterize development, the later focuses certain age

periods to manage the flow of time across child development. The following sections describe each of them in detail.

i Domains of development

The pattern of child development is generally divided into three broad categories including physical, cognitive and socio-emotional development (Berk, 2013). The physical domain involves biological changes that occur over time. These include changes in body size, proportions, appearance, motor skills, physical health etc. The cognitive domain includes changes in intellectual abilities and skills such as thinking, intelligence, creativity, attention, memory, language etc. Whereas, the socio-emotional domain highlights the processes that relate to the changes in a child's relationships with others, feelings, emotions, values, beliefs, personality etc.

The process of child development is quite complex and requires an interaction of several processes including the physical, cognitive and socio-emotional domain. Overall, these domains are interrelated and overlapping (see Fig. 1). Development, itself is the result of this complex interaction. For example, an advancement in the physical domain (e.g., sitting, crawling, walking) contributes towards cognitive domain (e.g., infants' understanding of their surrounding), which in turn, influences the emotional and social domain (e.g., adults celebrate their baby's achievements/actions and feelings/bonds are formed). In this way, these domains influence and are influenced by each other.



Source: Google image

Figure 1. The domains of child development

It is important to note that the domains of child and human development have been classified into a number of different aspects. For example, one classification of child development includes different domains such as the physical, cognitive, language, social

and emotional domain (Child Health Explanation, n.d.). Yet, another way to classify these domains involves physical, personal, social and cognitive (e.g., Woolfolk, 2014). Nevertheless, these domains are not mutually exclusive. For example, social and emotional development overlaps each other significantly and so, can be classified under socio-emotional development. Similarly, cognitive and language development can be grouped together due to their interwoven nature. This is why, we highlight the three broader domains of child development (See Fig. 1) (Berk, 2013). Yet, we are aware that even these three domains are not completely apart; rather, they overlap and interact with each other.

ii Stages of development.

It is believed that an interplay of various domains of development (as discussed in the above section) generate the different stages of child development. Some of the psychologists have used age periods to account for the new capacities, transitions and social expectations in children over the course of time (e.g., Berk, 2013). The most common classification of child development includes the age periods highlighted in Table 1.1.

Table 1.1
Stages of Child Development

Stage	Age period	Characteristics
Prenatal period	Conception till birth	<ul style="list-style-type: none"> • Rapid changes • Transformation of a single cell into a human body
Infancy and toddlerhood	Birth up to 2 years	<ul style="list-style-type: none"> • Extreme dependency • Beginning of intense physical, cognitive and socio-emotional development (e.g., symbolic thought, language development and social learning)
Early childhood / Preschool years	2 to 6 years	<ul style="list-style-type: none"> • Self-sufficient • Psychological and moral development • Considerable expansion in thought and language
Middle childhood / Elementary school years	6 to 11 years	<ul style="list-style-type: none"> • Increased responsibility • Improved thought processes and athletic abilities • Mastery of reading, writing and mathematical skills • Increased self and social awareness
Adolescence	11 to 18 years	<ul style="list-style-type: none"> • Transition to adulthood • Rapid physical changes • Increased autonomy, abstract thinking and reasoning • Development of a strong belief system

For further details, please refer to the following material:

Check your knowledge/understanding

1. The study of child development focuses on the:
 - a. changes that occur in larger groups of children
 - b. growth, change, and stability
 - c. biological changes
 - d. changes from adolescence to adulthood

2. The three major domains of child development include:
 - a. prenatal, cognitive and physical
 - b. early childhood, adolescence and cognitive
 - c. cognitive, socio-emotional and physical
 - d. personality, physical and prenatal

3. Besides domains, child development is organized around certain stages. These stages are based on:
 - a. biological events
 - b. subjective changes
 - c. maturation
 - d. universal age periods

4. A course which covers infant and toddler development will focus on which of the following age range:
 - a. 12 to 20 years
 - b. 06 to 12 years
 - c. 03 to 06 years
 - d. birth to 02 years

5. Ayesha, a third-grade teacher, finds it interesting to observe how children's attention span and problem-solving abilities increase over the course of the school year. She is observing
 - a. physical development
 - b. social development
 - c. cognitive development
 - d. personality development

Answers: 1. (b) 2. (c) 3. (d) 4. (d) 5. (c)

1.4 GENERAL PRINCIPLES OF CHILD DEVELOPMENT

Paul Baltes' life-span developmental framework informs our understanding about the general principles of child development in a coherent way (Baltes, 1997). Baltes articulated the basic principles of life-span development which are applied as a coordinated whole to view the nature of human development. These include the following principles:

1.4.1 Development is life-long

The life-long view of development has two aspects. First, development extends throughout the life-span of an individual. Second, new processes and changes may spur throughout the constantly emerging nature of life-span development.

1.4.2 Development is both multidimensional and multidirectional

A healthy development involves multiple dimensions and directions. This implies that development is neither limited to a single criterion (e.g., an increase and decrease in the physical ability), nor is it restricted to a single direction (e.g., only increase or decrease). Rather, it involves multiple abilities which may change over time in multiple ways.

1.4.3 Development involves both gains and losses

According to Baltes, any type of developmental process comprises both, growth and decline. For example, a gain in cognitive abilities of a child during formal schooling also characterizes a loss of his creative abilities as a result of following the school's rules etc. However, the gains and losses should not be treated as equal since the balance between these two may change over time.

1.4.4 Development is plastic

Baltes suggested that the process of development is characterized by plasticity. This implies that human being are open to changes and modifications in response to influential experiences. For example, an infant's brain has the tendency to change, modify and/or pick up the functions of other parts of the brain as a result of injury. Yet, plasticity has certain limitations within various domains of human functioning.

1.4.5 Development is situated in context and history

Children grow up in different contexts which are characterized by their personal, social, and environmental circumstances. These varied circumstances influence the course of their development. In this way, development is situated in context and history. For example, two children growing in rural and urban areas have different types of influences and experiences which can result in different paths of developmental changes for both of them. Similarly, the historical time period in which children grow affects their development in significant ways.

1.4.6 Development is multidisciplinary

Baltes argued that the study of human development is multidisciplinary in nature. Therefore, a single perspective or methodology is not sufficient to develop a holistic understanding of the multiple processes involved in human development. For example, psychological methodologies are not sufficient to reveal the sociological processes involved in development. In this way, multiple perspectives and approaches are needed to better understand the nature of human development.

Check your knowledge/understanding

6. The degree to which a developing behavior or physical structure is modifiable is referred to as:
 - a. integral
 - b. definitive
 - c. critical
 - d. plasticity

7. Many older people become wiser with age. Even then, they perform poorly on speed tests. This implies that development is:
 - a. multidimensional
 - b. multidirectional
 - c. lifelong
 - d. plastic

8. Differences in families, culture and historical time period in which we are brought up affect our development. This is because development is:
 - a. multidimensional
 - b. multidirectional
 - c. context dependent
 - d. plastic

9. Development characterizes different domains including cognitive, physical, and socio-emotional. This implies that development is:
 - a. multidimensional
 - b. multidirectional
 - c. context dependent
 - d. plastic

10. The principle that development involves both gains and losses also implies that development is:
 - a. multidimensional
 - b. multidirectional
 - c. lifelong
 - d. plastic

Answers: 6. (d) 7. (a) 8. (c) 9. (a) 10. (b)

1.5 ISSUES/CONTROVERSIES IN CHILD DEVELOPMENT

A number of controversies exist in the field of child development due to its complex nature. Researchers vary in their opinion about how children change and develop over time, what are these changes like, and what are the similarities and differences etc (see Keenan & Evans, 2009). These varied perspectives advance the knowledge about child development and psychology by guiding research in diverse areas of child development (e.g., social, emotional, intellectual, and physical development) and contradicting and integrating different views. The following sections present the most recurrent issues in the study of child development.

1.5.1 Continuous or discontinuous

One of the puzzling issues in the study of child development is how to characterize the nature of changes that occur with time? Are they best viewed as a part of a continuous process or do they take place in discontinuous stages?

Some theorists believe that development is a smooth, continuous process in which rather simple knowledge, skills and behaviors are gradually accumulated to form complex knowledge, skills, and behaviors. This implies that the process of development proceeds in an organized and orderly way in which newer and complex behaviors are formed on the basis of previous abilities.

Contrary to this view, other theorists believe that development is a discontinuous process in which new skills and behaviors emerge in rather abrupt and disconnected ways. From this perspective, development takes place in stages and mostly involves a qualitative reorganization of knowledge, behaviors, skills and functioning.

It is important to note that how we choose to examine development (i.e., as a continuous or discontinuous process) affects our understanding and interpretation of the process as well. However, instead of focusing on development as a continuous or discontinuous process, developmental psychologists urge to focus on the sources of continuity or discontinuity. Overall, it is assumed that development has both continuous and discontinuous aspects.

1.5.2 Single or multiple courses

Another issue which concerns developmental psychologists is whether there is a single route of development or is there many? Stage theorists who believe that development occurs in a series of universal stages argue that the same sequence is followed everywhere. Yet, others acknowledge specific features of individuals and the distinct contextual factors in which they are brought up. They believe that child development is influenced by unique combinations of personal (e.g., heredity and biological factors) and environmental (e.g., home, school and community settings) circumstances, and thus, follows multiple and varied tracks.

Overall, researchers today, are more concerned about the contextual factors that influence the course of child development. Most of them acknowledge both universal factors as well as the unique personal and contextual features in the study of child development.

1.5.3 Nature or Nurture (stability vs. plasticity)

Perhaps one of the most controversial questions in the study of child development is about its underlying cause. How does development take place? What are the basic

factors that influence development? The answer to these questions sparks a debate about the possible role of nature versus nurture in human development.

The term *nature* implies that the biological and hereditary traits that we receive from our parents are responsible for our development. The theorists who stress the role of heredity in human development also emphasize stability (i.e., the children who are genetically high or low in certain traits will also remain so in adulthood). Whereas, the term *nurture* suggests that the complex environmental and cultural influences are accountable for human development. Likewise, the theorists who emphasize nurture believe that development is substantially plastic and open to changes throughout the life-span. Thus, while the theorists attend to both nature and nurture in explaining human development, they vary in their emphasis.

However, the extreme positions on nature or nurture are no longer supported. Rather, it is argued that development is influenced by an interaction of both genetic and environmental factors. This interaction in view is becoming increasingly popular among the researchers as well as the general public, for example, parents. In turn, researchers are encouraged to study the interplay between these two factors in order to understand how development takes place.

Check your knowledge/understanding

11. Umar believes that development is a gradual process, or the result of _____ change, whereas Ali believes that development is a stage-like process, or the result of _____ change.
 - a. quantitative, qualitative
 - b. continuous, discontinuous
 - c. qualitative, quantities
 - d. discontinuous, continuous
12. Researchers who support the view that children's intelligence is influenced by the genes that they inherit from their parents believe that development is the result of:
 - a. nature
 - b. nurture
 - c. continuous change
 - d. discontinuous changes
13. As we evaluate the controversies in the field of child development, we should:
 - a. assume that the majority is likely to be right
 - b. apply universal principles regardless of the context
 - c. only listen to the parental advice
 - d. understand the difference between scientific and subjective data

Answers: 11. (b) 12. (a) 13. (d)

1.6 FACTORS INFLUENCING CHILD DEVELOPMENT

A number of factors affect child development at different levels. They range from personal and biological factors to wider influences such as economic and environmental features; social norms, culture etc (e.g., see Best Start, n.d.). Each factor may support or inhibit a child's development. They can be generally grouped into four categories. These are discussed in the following sections.

1.6.1 Biological factors

As discussed earlier, biological factors refer to the genetic features that individuals receive from their parents. These include gender, as well as general, physical and mental health, inherited traits etc. Boys and girls tend to develop differently. Similarly, general health of the child, for example, birth weight, and medical condition influence his/her development over time. Besides, maternal age, health, stress, and nutrition are likely to influence a child's development.

1.6.2 Environmental factors

Environmental influences including parenting, nutrition, housing, education, culture, income, employment, health services, safety etc affect a child's development. It is important that children are brought up in a safe, healthy and nurturing environment to positively influence their development.

1.6.3 Interpersonal relationships

Interpersonal relationships are critical for a child's learning and well-being. Healthy interpersonal relationships are characterized by attachment, positive parenting style and parental interactions with children, and supportive social networks.

1.6.4 Early environment and experiences

The most important early environment for an infant is provided by his/her primary caregiver. A child's relationship with his/her caregiver, and mutual effects on each other, lay the foundation for development. Consequently, a child's development of social, physical, emotional, language, and cognitive skills is largely influenced by the early environment and experiences gained through reciprocal social interactions with adults and caregivers.

1.7 SELF-ASSESSMENT QUESTIONS

1. What are some of the ways in which culture has influenced your development as a child? Elaborate with examples.
2. Compare and contrast your childhood with the childhood of children living in today's world. Explain how historical time period influences the development of today's children when compared with your childhood.
3. What are the major societal influences that determine development?
4. What are the key issues and questions in the field of child development? What is your stand on these issues? Explain with reasons.

1.8 REFERENCES

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