ignou
THE PEOPLE'S UNIVERSITY

Indira Gandhi
National Open University
School of Education

BES-121
Childhood and
Growing Up

Block

2

GROWING UP : INFANCY TO ADULTHOOD

Expert Committee

Prof. I.K. Bansal (Chairperson) Former Head, Department of Elementary Education, NCERT, New Delhi	Prof. Aejaz Mashih Faculty of Education, Jamia Millia Islamia, New Delhi	Prof. M.C. Sharma (Programme Coordinator - B.Ed.) School of Education, IGNOU New Delhi
Prof. Shridhar Vashistha Former Vice-Chancellor Lal Bahadur Shastri Sanskrit Vidhyapeeth, New Delhi	Prof. Pratyush Kumar Mandal DESSH, NCERT, New Delhi Prof. Anju Sehgal Gupta School of Humanities, IGNOU, New Delhi	Dr. Gaurav Singh (Programme Co-coordinator - B.Ed.) School of Education, IGNOU New Delhi
Prof. Pravin Sinclair Former Director, NCERT School of Sciences, IGNOU New Delhi	Prof. N.K. Dash (Director) School of Education IGNOU, New Delhi	

Special Invitees (Faculty of School of Education)

Prof. Venkateswarlu	Dr. M.V. Lakshmi Reddy	Dr. Elizabeth Kuruvilla
Prof. Amitav Mishra	Dr. Bharti Dogra	Dr. Niradhar Dey
Ms. Poonam Bhushan	Dr. Vandana Singh	Dr. Anjuli Suhane
Dr. Eisha Kannadi		

Course Coordinator : Dr. Elizabeth Kuruvilla, SOE, IGNOU

Course Preparation Team

Course Contribution

Unit 4
Dr. Kamakshi Agnihotri
Associate Professor
School of Education, IASE
Devi Ahilya Vishwavidyalaya
Indore

Unit 5
Dr. Elizabeth Kuruvilla
Assistant Professor
SOE, IGNOU, New Delhi

Unit 6
Ms. Siddhi Sood
Assistant Professor
Shri Gujarati Samaj B.Ed.
College Indore

Unit 7
Prof. Mehnaz Ansari
IASE, Faculty of Education
Jamia Millia Islamia
New Delhi

Content Editing

Prof. Jessy Abraham
IASE, Faculty of Education
Jamia Millia Islamia
New Delhi

Language Editing

Ms. Malathy A
Editorial Unit, SOH
IGNOU, New Delhi

Dr. Parmod Kumar
Editorial Unit, SOH
IGNOU, New Delhi

Course Design and Format Editing

Dr. Elizabeth Kuruvilla
Assistant Professor
SOE, IGNOU, New Delhi

Proof Reading

Dr. Elizabeth Kuruvilla
Assistant Professor
SOE, IGNOU, New Delhi

Material Production

Prof. N.K. Dash Director SOE, IGNOU, New Delhi	Sh. S.S. Venkatachalam Assistant Registrar (Publication) SOE, IGNOU, New Delhi

BES-121: CHILDHOOD AND GROWING UP

BLOCK 2   GROWING UP: INFANCY TO ADULTHOOD

Introduction

In this block, our goal is to provide you an understanding about human development. You know that development occurs in various dimensions and can be viewed in different perspectives. In this block, you will have the opportunity to ask some basic questions: How did we grow from a single cell to the fully grown adult person we are today? What factors influence our life? How do the various stages- childhood, adolescence and adulthood mould your development? In this way this block will pique your curiosity to learn more about child and adolescent development.

This Block consists of four units.

In **Unit 4**, we discuss the concept of growth and development of human beings. Development entails many changes which are systematic, orderly and patterned. This unit lays the groundwork for the remaining units of this block by addressing some pertinent questions: How should we think about development? What are the principles of development? Three main issues are prominent in the study of human development- nature-nurture issue, continuity-discontinuity issue, activity- passivity issue and universality- context specificity issue. You will also study the developmental tasks in diverse socio-economic and cultural background and the impact of school on the development of children.

Unit 5 will take you to view development in various perspectives. Different perspectives on development explain behaviour as well as predict behaviour that can be observed. Firstly, you will get familiarized with biological perspective and its two viewpoints-maturation and attachment viewpoints. Then you will be introduced to life-span perspective. Then your attention is diverted to the bioecological perspective which explains how different social processes influence development in different periods. The cognitive perspective looks into how we think and interact with the world. And lastly, you will study the socio-cultural perspective which emphasizes the role of culture and social interaction in the process of child development.

In **Unit 6**, we introduce you to the idea that there are different domains of development. There is description on physical, cognitive, psycho-social, and emotional development. In this Unit we examine how children and adolescents develop the capacity to act and reason morally. Each dimension has its own significance with respect to different stages. You will also understand the holistic approach of development and the role of teacher as a facilitator.

Unit 7 deals with the need of conducting research in classrooms. While going through the different developmental stages, children will express behavioural problems in classroom. As facilitators, you have to help the children to solve the problems. This Unit describes the various methods that can be used to study children and adolescents.

UNIT 4   UNDERSTANDING GROWTH AND DEVELOPMENT

Structure

4.1   INTRODUCTION

Have you seen your childhood photos? Have you thought about the changes that happened to you by now? You have experienced changes in size, appearance, emotions and other psychological characteristics. But individual differences exist in the process of change. Thus the change pattern differs from individual to individual which determines the uniqueness of the individual. But the fundamental process of change remains the same as each and every person passes through the same stages of development. The changes are basically determined by two major factors- heredity and environment. You, as an individual, with your own unique heredity and environment travel the journey of growth and development with your peculiarities making you unique. Thus to understand the unique characteristics of the individual, it is important to understand the various concepts related to growth and development. In this unit, you will understand the concept of human growth and development, principles of development, stages of development, and issues related to growth and development. You will also study the developmental tasks in diverse socio-economic and cultural background and the impact of school on the development which will help you to understand the behaviour of your students so that you can facilitate the process of development as per their unique demands.

4.2   OBJECTIVES

After going through this unit, you should be able to:

● explain the concept of growth and development;

- differentiate the concept of growth and development;

- explain the principles of development;

- describe the various stages of development with real life examples;

- discuss the various issues related to development;

- identify the developmental tasks in diverse socio-economic and cultural backgrounds; and

- explain the impact of school on development.

4.3   HUMAN DEVELOPMENT

Human being undergoes changes throughout the life. You can recall your past memories about the changes you have undergone. These changes are progressive in nature as response to the environmental demands. These not only differ from individual to individual rather stage wise also. A child may exhibit fast changes in physiological and psychological dispositions but later on the speed of action changes. The changes are determined sometimes by genetic inheritance and sometimes by environmental factors. If you compare the rate of changes in infancy and adolescence, you will understand that there is not only difference in the rate of change but the aspects of change also differ from stage to stage.

4.3.1   Concept of Growth and development

You know that from conception to death the individual undergoes change. There are two concepts associated with human changes – **growth and development**. Generally, we may use these words interchangeably. But they differ from each other with respect to the nature of changes they brought in the individuals.

Growth basically refers to the quantitative changes in body proportion like change in height, weight, internal organs etc. In other words, growth means increase in size of not only the overall dimensions of the body in terms of height and weight but also of the parts of the body such as head, arms, trunk, heart and muscles. It changes from early stage of growth to the later stage. Thus growth is confined to the physical changes which are quantifiable. You might know that at the time of birth, the details of a new born baby like body weight, height and sex are recorded in the medical document. You can study any medical file of any new born baby to understand the various aspects related to the concept of growth.

Development, on the other hand, reflects the qualitative changes in the individual. It may be defined as a progressive series of orderly, coherent changes. The term **progressive** denotes that changes lead forward. **Orderly** and **coherent** assume that there is a definite relationship between the changes occurring and those that precede or will follow them. These changes bring functional maturity in the individual. So, development is qualitative changes in the person which is reflected in the improvement in working or functioning of the person. For example, if we measure the height and weight of the child then we are dealing with the concept of growth but when we talk in terms of improvement in functioning like writing with pen or keeping objects on high place, then these changes in the child denotes developmental process. Thus, we may conclude that growth stops after a certain age whereas development may go on.

Check Your Progress 1

Notes: (a) Write your answers in the space given below.

(b) Compare your answers with the one given at the end of the unit.

(i) Indicate 'G' for Growth and 'D' for development for the given statement.

a. A three months baby starts turn over.

b. A one year old child starts pronouncing 'Maa'.

c. A girl's height increased by eight inches after six months of her birth.

d. A ten years old boy is able to serve water to guests.

(ii) Differentiate the concept of growth and development on any five points.

....

....

....

....

....

(iii) Observe any two kids of different age and identify any five examples of growth and development in each of them.

....

....

....

....

....

4.3.2 Principles of Human Development

From the above paragraphs, you have come to understand that development is a progressive series of qualitative changes that occur due to maturation and experience. Thus human development is based on certain principles. Let's try to understand the underlying principles of human development.

● **Principle of Continuity**

Development follows the principle of continuity which starts with conception and ends with death. It is a never ending process in life. The child, through the developmental process, passes continuously with changes although the pace and quantity of change vary from stage to stage. Although it seems that a child has a maturity level still s/he undergoes change. For example, a child at the age of four has learnt some words but later on s/he will learn to prepare sentences out of it. So, development never ends but it continues till the death.

● **Principle of Individual Differences**

Case 1: Rishabh and Chitranshu are siblings. They are brought up under same family environment. Rishabh used to play football but Chitranshu always ignored to play those games which demand rigorous physical efforts. When examined by the pediatrician, his mother came to know that Chitranshu is suffering from the problem of heart enlargement.

What would you infer from the above case? You may say that though the two children were born in the same family, there is difference in their physical development. As we have already discussed earlier, every individual is unique in himself/herself as the heredity and environmental factors makes him/her different from others. So, development is also based on the principle that although some aspects of development will be common for all the individuals, but because they possess different hereditary traits and environment, they differ from each other. For example, if the child is having an inborn capacity of music s/he may not exhibit the same amount of skill of performing the music as compared to the child who got the opportunity to be trained in music.

● **Principle of Sequentiality**

Principle of sequentiality states that every individual although exhibit difference in change, they follow the same sequence of change. In prenatal stage of development, a genetic sequence is followed appearing at fixed intervals with specific characteristics. **Cephalocaudal** and **proximodistal tendencies** are found to be followed in maintaining sequence and direction of development. The **Cephalocaudal tendency** exhibits that the development proceeds in the longitudinal direction i.e. from head to foot. That is the reason why the child first gains control over head before s/he starts walking. **Proximodistal tendency** proceeds from near to the distant and from parts of the body near the center develop first then the extremities. Therefore the child in the earlier stage of development exercises on the fundamental muscles rather than the smaller muscles or fine motor skills. Thus the child follows the sequence in the development process as s/he first draws some haphazard line before writing an alphabet.
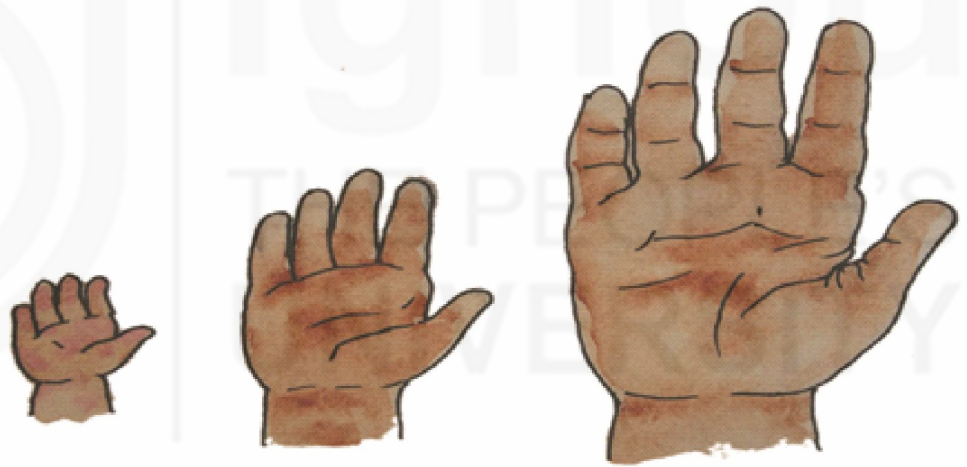
Fig. 4.1: Principle of Sequentiality

● **Principle of Generality to Specificity**

As we have already discussed that the development process follows a sequence. It proceeds from head to foot and from central axis to extremities of the body. In the same way, this principle of sequentiality also suggests that the nature of development follows the principle of generality to specificity. The development process starts with general responses shown by the child as s/he passes through the later stages s/he starts exhibiting specific behaviours. For example, a child may utter a sound which is common for each and every object and person s/he sees in the environment, like *inna,* but later on s/he starts pronouncing specific words denoting specific objects or persons, like *maa, pa,* and so on.

Activity 1

Observe children below 3 years in your neighbourhood and give more examples for the principle of generality to specificity.

....

....

....

....

● **Principle of Interrelation**

Case 2: Pinky is 16 year old who is gaining physical maturity. Earlier she used to play with all the kids in neighborhood, but now her social circle has reduced to girls only while attraction towards opposite gender can be observed. This suggests that the change in the physical aspect of Pinky has affected her social and emotional behaviour.

As we all know that development does not solely mean physical aspect of human life rather it includes cognitive, affective, social and moral aspects also. Thus, the development of an individual is reflected through the balanced interrelation of all the aspects of life. Development in any aspect affects the other aspect also. For example, if an adolescent girl passes through a significant change in physical aspect, her emotional, social and moral dimensions also will change.

Activity 2

Observe 11-16 year old children in your school .Note the behavioural changes in girls and boys as they start showing physical gender appearances. Do you come across any difficulty faced by those who mature early?

....

....

....

....

● **Principle of Interaction**

The principle of interaction suggests that an individual is the product of heredity and environment. In other words, the interaction takes place within and outside forces of the child. As we have earlier studied that the individual standing before the society is not the sole product of heredity rather it is due to the combination of what s/he is and what s/he receives from the environment. For example, if a child is deficient in mental capacity it is due to her/his genetic disposition but if s/he is capable of doing some household activities then it is possible due to the environment. In the society also some people are successful enough but some are not. The reason behind it may be due to the differences in individual's environment. Thus, it can be said that development is the product of the interaction between the environment and heredity.

● **Principle of Differentiation in Rate**

Differentiation in rate indicates that individuals differ in the rate of development. We can observe that there is difference in the rate of development in girls and boys, like girls grow faster than the boys at the early stage of development. Another aspect is that the rate of the development process also differs stage wise and dimension wise. For example feet, nose, hands develop at the early stage of adolescence but the

shoulder grows gradually. In the same way, the nature of mental development is also not of uniform pace. For example, a child starts memorizing concepts or facts at the early stage of development, but later on s/he starts thinking logically.

● Principle of Integration

Principle of Integration refers to the integration of various aspects of development like physical, mental, emotional, social and moral. The individual we are observing is not the sole reflection of any one aspect rather it is the integration of all the dimensions of development. Although we have already studied that the change in any dimension affects other dimension also but the personality of a child is the product of the balanced integration of all the aspects. For example, a child who is performing brilliantly in any examination is not only the reflection of her/his mental development rather the performance is the balanced reflection of all the aspects of development.

● Principle of Predictability

Development is predictable i.e. with the help of the uniformity of the pattern and sequence of development. We can predict the behaviour to a great extent of child in one or more aspect in a particular stage of her/his growth and development. Likewise, the prediction of an adolescent can be done on the basis of the characteristics s/he exhibits at her/his stage of development. For example, an adolescent child's choice of clothing is more guided by the choices of her/his friends circle. Thus, we can assume that in case of interference of parents in buying clothes, may lead to reactive behaviour or may not taking interest in buying it. Therefore, the nature of development, to a great extent, is predictable.

Reflect

Suppose you got an opportunity to teach students of class XI, to whom you have earlier taught in Class VIII. How will you decide about the methods and strategies of teaching on the basis of principle of predictability?

Check Your Progress 2

Notes: (a) Write your answers in the space given below.

      (b) Compare your answers with the one given at the end of the unit.

(i) Indicate the principle reflected for the given statement.

    a. Sita is studying in a convent school and Gita in a government school. They met each other in a science exhibition and Gita was very surprised on seeing Sita using laptop for explaining her project.

    b. Mamta saw her niece after seven years and she was shocked that her height increased significantly.

    c. My friend's daughter is now a grown up girl, she has started showing preferences for playing with girls only.

    d. Uttering 'mum' for water and later on speaking 'pani'.

(ii) Differentiate the principle of integration and interrelation with the help of an example.

....

....

....

....

4.4   STAGES OF DEVELOPMENT

The development process, as we have already learnt, passes through certain stages. These stages differ from one another. Each stage of development (see fig.4.2) is unique and has certain specific characteristics.
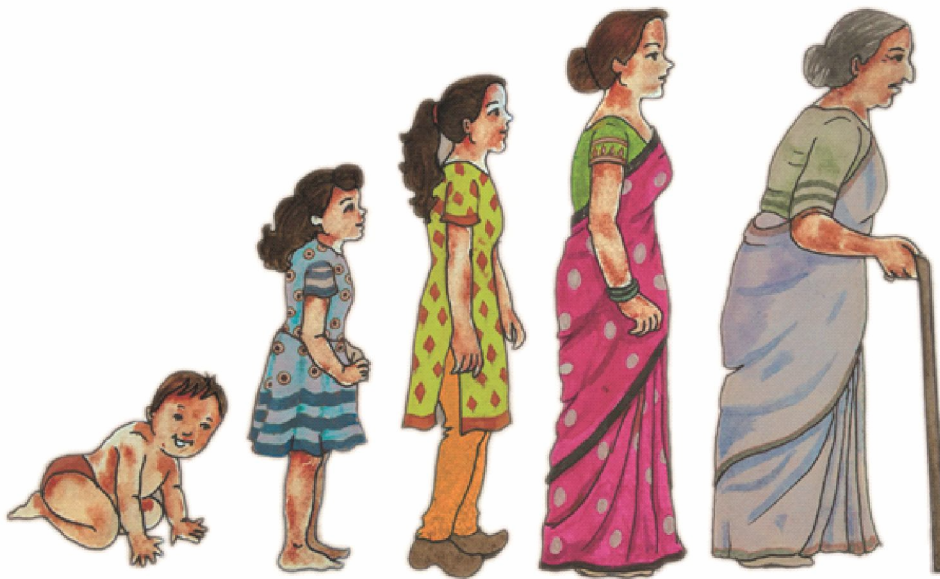
Fig. 4.2: Stages of development

As per the psychological classification, age range has been used to specify stage of development. The stages of development are classified as follows-

Name of the Stage	Period and Approximate age
Prenatal	Conception to birth
Infancy & toddlerhood	Birth to 2 years of age
Early Childhood	2 to 6 years of age
Later childhood	6 to 10 years of age
Adolescence	11 to 18 years of age
Adulthood	18 years and above

Let's try to understand unique features of each and every stage of development except prenatal development.

● **Infancy**

The period of infancy covers the preschool stage of child development. Infancy stage is the period of rapid growth and development. Inner as well as outer organs develop at a rapid speed which can be seen in increase in height and weight. The infants of first two weeks are called neonates. They have soft, wrinkled skin and they sleep for almost 18 to 20 hours. They cry only when they are hungry. As soon as their hunger is satisfied they sleep again. In this stage they depend more on the family members especially on mothers. The baby starts recognizing mother. Few months later, the child is able to babble and exhibit some muscular movements and later on till six months s/he is able to exhibit coordinated muscular movements. The baby begins to concentrate on her/his own body. When s/he starts crawling, her/his curiosity increases. The infant starts gaining motor control of the head then of the muscles of the lower part of the body.

After six months s/he starts seeking emotional satisfaction from the family members. Self assertion is one of the key features of this stage. Although the child is depending still s/he demands that her/his wishes should be satisfied. This is the period of baseless imagination. S/he imagines and aspires than her/his actual capabilities. At this stage of development the child is ego-centric. S/he demands everything from the environment. S/he is not aware of the social norms. The child only focuses on the gratification of needs. This stage is labelled as sensorimotor stage which is marked by moving from reflex action to goal directed behaviour.

Activity 3

Interview the parents of an adolescent. Sketch the developmental pattern followed.

● **Early Childhood**

This stage is known as preschool stage. The child refines his/her behaviour and enlarges the scope of associating with people. Although the rate of physical growth continues to be normal, there is marked difference in the cognitive and linguistic abilities of the child. At this stage of development there is expansion of cognitive abilities. The child, at this stage, exhibits the **semiotic function** which means the ability to deal with symbols. Although the child is able to think about symbols still he lacks reversibility. Reversibility here means the way in which the child has learned anything he is not able to understand if it is slightly reversed. For example, if you show two same glasses of water to the child s/he will answer that both glasses contain equal quantity of water but if you pour it in a narrower glass the glass will seem to be more filled than the earlier one so the child is not able to guess correctly about the quantity of water.

Another aspect is of language development. The child at this stage starts developing sentences on his/her own by using the grammatical rules to some extent. Moreover, in comparison to infancy stage, the emotions of the child are more common, intense and distinguished, while socially the child reflects happiness in learning, growing and playing together (fig.4.3).

Fig. 4.3: Early childhood stage

- **Later Childhood**

The period from 7 to 12 years of age is slow in comparison to early stage of development. The later childhood is characterized by intellectual, moral and social development. The children are more aware about their achievements and form groups. They start understanding rules and they accept rules. They stick to one or two close friends and prefer to play with same gender. The motor coordination improves and thus, leads towards the plays like climbing tree, skipping etc. As their intellectual abilities develop, they are able to make perceptions about the people around them.

- **Adolescence**

Adolescence is the stage of transition. The child moves from childhood to more mature stage of development. This stage is characterized by important changes in physical, cognitive and social aspects.

Physical changes are very important in this stage. There is change in height and weight of both boys and girls. There is increase in height. The age differs from individual to individual. But increase in height has its association with the pubertal growth. Sexual differences are observed. At the age of 13 years girls surpass boys but by the age of 15 boys surpass girls. In majority cases, girls by the age of seventeen and boys till eighteen reach their maximum height.

Along with the change in height and weight one important physical change is observed in the form of maturity in sexual organs. This change in the form of sexual maturity has impact on the socio-emotional aspect of the child. They become more conscious about their physical appearance. At this stage we can see that children are more attracted towards opposite sex. We can also notice the development of 'infatuation' in this stage. Now, they have their own world which is basically influenced by their friends circle.

On the emotional aspect, this stage is characterized by heightened emotionality. There are many reasons behind the emotional hike during adolescence period. Due to hormonal changes adolescents face emotional disturbances, like self-consciousness, inferiority complex, and stressed relationship with parents which lead to a diversion in social relationships.

Therefore, another important aspect of this stage is the social change. At this stage, the children are more influenced by their peer group which act as standards for them. Their choices are basically directed by the group they belong to. But, the friends at this stage are less in number. Children select their friends on some criteria. They live in the world of fantasy. Heroes are role models for them. Their choices of clothing and fashion are generally guided by peer group or heroes. Moreover, day dreaming is one feature of this period. Along with this, children become conscious about their career and start thinking in that direction.

This stage is marked by significant cognitive developments. One of the important characteristics of this stage is that children develop ability to generalize facts. They start doing logical thinking and for this they are capable of doing abstract thinking. Thus, this period is the most important period of human development as it is a transitional period in which a child undergoes significant physical, cognitive, emotional and social changes which are base for the future life of the child. That is why this stage is also referred as the stage of **stress and storm.** Let us understand this with the help of a case study.

Case 3: Apoorv's mother is cooking something special for his birthday celebration. She took half day from her office for all these preparations. Apoorv happily comes down and finds her mother busy in kitchen. He asks her mother what she is doing. Mother tells him that she is preparing special food for evening party on his birthday. Apoorv reacts rashly and informs her mother that he is going out to celebrate with his friends. He demands cash for the party. On refusing, he gets irritated and shouts loudly that he is now grown up and none of his friends celebrates birthday at home. He doesn't want to get insulted in front of his friends.

Reflect

Raj is studying in Class XII. He is from a rich family with both mother and father working in multinational companies at higher posts. They return home late night and on weekends, they get busy in late night parties. Raj, therefore, used to spend his time with friends. One day, while cleaning his room, his mother found some undesirable things. She gets disturbed and immediately contacted his father. With further enquiries they came to know that their child has started taking drugs.

What as a teacher, are you going to suggest Raj's parents?

....

....

....

....

- **Adulthood**

Adulthood stage is comparatively a mature stage. At the early phase of this stage the individual is more bothered about her/his career and future life. Now the social expectation also changes. This stage basically demands planning for professional life and marriage. This the most responsible phase of life.

In the later part of adulthood, the role of the individual also changes. Now, s/he may have the responsibility of the whole family. Moreover, s/he may be able to guide others as a mature person regarding career, life etc. on the basis of the experience s/he has gathered in her/his life.

The last part of adulthood deals with the old age. At this stage the individual is at retirement stage or near to retirement. The concerns change and the individual is more conscious about the health hazards. Some people may develop spiritual inclination and start preparing for the ultimate end of life.

Check Your Progress 3

Notes: (a) Write your answers in the space given below.

      (b) Compare your answers with the one given at the end of the unit.

(i) List the stages of development.

....

....

....

....

(ii) Write a short note on childhood stage.

....

....

....

....

4.5 ISSUES IN DEVELOPMENT

We have already studied that each and every individual passes through certain developmental stages. There are certain underlying principles of development which are more or less common to all individuals. Still psychologists and educationists differ in their opinion about the nature and underlying principle of development. As we have already established that heredity and environment both affect the growth and development of the individuals, there are other issues related to this phenomena. Let's try to understand them one by one under different captions.

4.5.1 Nature vs. Nurture

Is development the product of nature or nurture? Psychologists and educationists had debate on this issue. When we talk about nature in child development, we are talking about what comes to children through heredity. When we talk about nurture, we are referring to the influence of the environment. People who are in favour of nature suggest that only nature is responsible for the development. On another hand, those who are in favour of nurture, suggest that the development of an individual depends on the environment, how it nurtures the individual. Thus the issue of nature vs. nurture emerges.

But if we analyze the development of the individual, it neither seems to be the product of sole nature nor of sole nurture component, rather it is the product of both nature and nurture. Let's try to understand it with the help of a case.

Case 4: Raju and Nikhil were identical twins. When they were 2 years old their mother expired. Raju was sent to his grandmother at the nearby village in Tamilnadu and Nikhil was brought up by his father. After some years Raju went to meet his father**.** Raju's father was very surprised looking at him. He was not different in his physical development but a complete difference may be noticed in language, social behaviour and cognitive parts of the two. The dissimilarity was due to the difference in upbringing environment of the two brothers. Thus, if the nature remains same, still the difference in environment makes significant difference in the development process. Therefore, the individual's development is the product of interaction between nature and nurture.

4.5.2 Continuity vs. Discontinuity

Do you believe that humans change gradually, in ways that leave them not so different from the way they were before, or do you believe humans change abruptly and dramatically?

One aspect of the **continuity vs. discontinuity** issue focuses on whether the changes humans undergo over the life span are gradual or abrupt. Continuity theory suggests that an individual's development is a smooth and gradual process. As you can see in the figure 4.4a, the girl is moving from infancy towards adulthood in a progressive manner. The base for the path of all the developmental stage is common. Here, you

can observe that the early stage of development provides a base for the consequent stage.
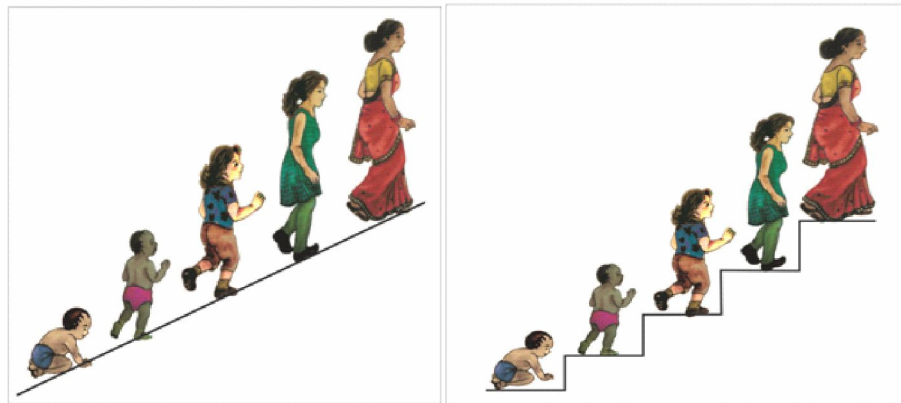
Fig. 4.4a: Continuous development   Fig.4.4b: Discontinuous development

But the discontinuity theory suggests that the change is abrupt during the course of life. It also believes that each stage of development is unique and is characterized by distinct feature. For example, if a child is at infancy stage s/he will exhibit the behaviours peculiar to that stage, which will not be the characteristic of the same child at adolescence stage (fig.4.4b). In other words, in the view of discontinuity theory development is stage specific.

4.5.3   Activity vs. Passivity

Let's try to understand another issue related to development with the help of a case.

Case 5: Aparajita and Madhvi are studying in same class. Aparajita has cognitive ability to achieve high scores even when she takes classes in a very light manner. She is basically not interested in studies. On the other hand, Madhvi is a student with average cognitive ability but she puts hard work in learning concepts. Madhvi willingly took admission and was very eager to take up the course.In the first test Aparajita scored higher than Madhvi, where as the latter showed a tremendous improvement in her second test. This was due to her own efforts on assessing her weakness and working hard on it.

From the above mentioned case, we can analyze that there are two issues related to individual's development. The first issue of 'activity 'assumes that in the development process the individual is active. S/he does not accept what is coming naturally. Rather s/he tries to choose her/his own pathway of development, as we can see in the case of Madhvi's efforts for improvement in her achievement.

On the other hand,'passivity' in development suggests that individual accepts as it is whatever is coming in the pathway of development. In other words, the psychologists interpreting development as a product of passivity of individuals consider that individual accepts the change coming naturally. Like the case of Aparajita who does not put any effort for improving her scores as she was very passive in studies.

4.5.4   Universality vs. Context Specific

We have already studied that development is a continuous process which starts from birth to death. Development of the individual is based on certain principles. The principle of sequentiality and uniform pattern leads to one important issue of universality. Universal assumption of development assumes that the path of development is common to all individuals. For example, the stages of development

starting from infancy to adulthood are common for all the individuals. In other words, every human being passes through sequential pattern of development irrespective of culture, community and society.

The extent to which the developmental changes are different across cultures, community, society and individuals is an issue of 'context-specific' development. Path of development followed in one culture may be quite different from path followed in another culture. This issue suggests that development takes place in the specific context of the different aspects like society, culture, individual etc. For example, an individual from a tribal background may have a set of social behaviours which is different from the individual of urban area. Moreover, the way of greetings, language, art and aesthetics also reflect the context-specific development of individuals. Therefore, with in a particular culture, the developmental changes may differ from subcultures to subcultures, family to family and individuals to individuals. But, it may be observed that despite the context-specific development, individuals pass through the similar developmental stages.

Check Your Progress 4

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

(i) What issues have been central to the study of children and adolescents?

....

....

....

....

4.6 DEVELOPMENTAL TASKS IN DIVERSE SOCIO-ECONOMIC AND CULTURAL BACKGROUNDS

We have already studied about the raised issues regarding the nature of development of individual**.** Now it is important to analyze and discuss the developmental tasks in the context of multicultural and diversified students in terms of socio-economic status. We, as teachers/prospective teachers, may confront such situation during our career that the individuals with whom we are dealing have diversified nature. In such situations, we are supposed to plan tasks according to the diversified nature of class. Here comes a challenge for teacher.

Before we start understanding the challenge of diversification, it is very important to know what developmental task is. A developmental task is a task which arises at a certain period in the life of the individual. The individual passes through a socially regulated cycle from birth to death and there is socially prescribed schedule for rendering major life events. The norms vary from culture to culture and socio-economic background.

It was Robert Havighurst (1951) who coined the term developmental task to delineate the individual's accomplishment of certain social abilities or attitudes related to development. Developmental tasks are skills, knowledge, functions, or attitudes that an individual must acquire at various stages during her/his lifetime in order to adjust successfully to the more difficult roles and tasks that lie before her/him. You might know that these tasks are acquired through physical maturation, social fulfillment, and personal effort. Successful mastery of these tasks makes an individual well

adjusted and competent of dealing with future levels of development. On the contrary, failure to acquire these tasks leads to maladjustment, increased anxiety, and an inability to deal with the more difficult tasks in future. Havighurst also stressed that the developmental tasks of any given stage are sequential in nature; each task is a prerequisite for each succeeding task. He points out that the kinds of developmental tasks through which the individual must proceed may differ from culture to culture; and biologically determined tasks are more likely to be culturally universal than the tasks that have a strong cultural component.

As in secondary and senior secondary schools, we are concentrating more on adolescents, let us discuss the major tasks that are needed in this adolescence stage. With respect to adolescence, Havighurst has noted nine major tasks:

Developmental tasks of Adolescence

1. Accepting one's physical makeup and acquiring a masculine or feminine sex role;

2. Developing appropriate relations with age mates of both sexes;

3. Becoming emotionally independent of parents and other adults;

4. Achieving the assurance that one will become economically independent;

5. Determining and preparing for a career and entering the job market;

6. Developing the cognitive skills and concepts necessary for social competence;

7. Understanding and achieving socially responsible behaviour;

8. Preparing for marriage and family;

9. Acquiring values that are harmonious with an appropriate scientific world-picture.
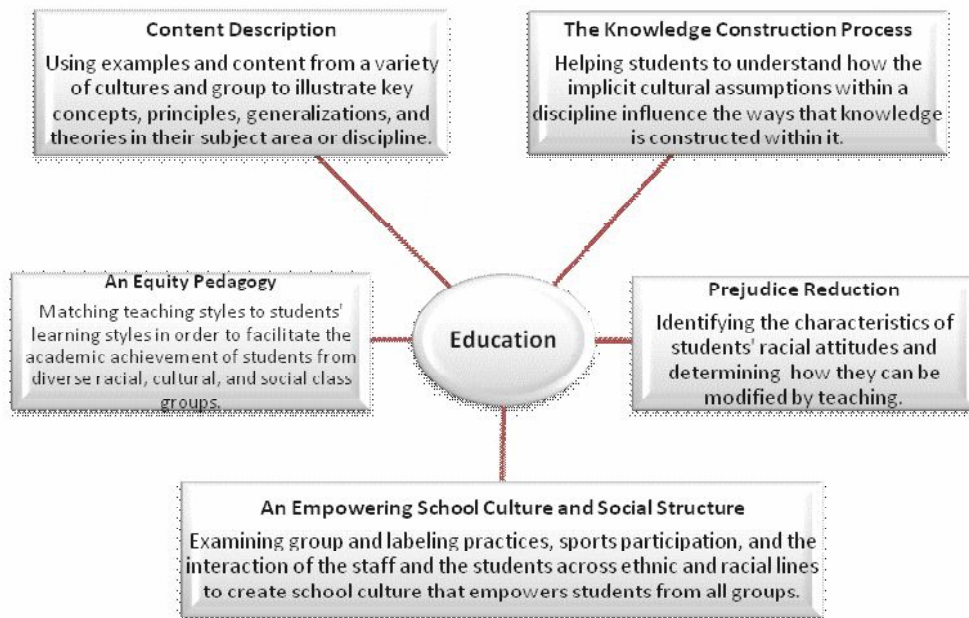

Source: *Havighurst, R.J. (1972). Developmental tasks and education (3rd ed.). New York:David McKay.*

Let us consider this case:

Case 6: Sunder has taken admission in class IX of an urban school. He basically belongs to a rural background. He is very eager to study in a big city. At the very first day of his school, he realizes a totally different picture of school in comparison to his school at village. He feels difficult to adjust with his peer group and face difficulty in understanding the classes.

Now this case puts a challenge before a teacher. If you are a teacher of Sunder, how would you deal with this case? As a teacher, you have to understand the background of Sunder and make him adjust with the new environment slowly. A teacher has to bring changes in all the students irrespective of their background. The developmental tasks have to be designed on the basis of multicultural demands of students. For example, while teaching any concept you should give examples from different cultures. Another effort may be that if you are teaching in a school where students are coming from rural background, you could use local dialect for teaching various concepts that may help the students to understand properly.

As development of the students targets the future adjustment in the society so there is a need to create such environment in the class so that they not only learn the modern terminologies rather they should be sensitive enough to preserve their own culture. There are many components of education process which can be modified to meet the demands of students of diversified backgrounds (fig. 4.6).

Content Description	The Knowledge Construction Process
Using examples and content from a variety of cultures and group to illustrate key concepts, principles, generalizations, and theories in their subject area or discipline.	Helping students to understand how the implicit cultural assumptions within a discipline influence the ways that knowledge is constructed within it.

An Equity Pedagogy		Prejudice Reduction
Matching teaching styles to students' learning styles in order to facilitate the academic achievement of students from diverse racial, cultural, and social class groups.	Education	Identifying the characteristics of students' racial attitudes and determining how they can be modified by teaching.

An Empowering School Culture and Social Structure
Examining group and labeling practices, sports participation, and the interaction of the staff and the students across ethnic and racial lines to create school culture that empowers students from all groups.

Fig. 4.6: Components of education incorporating diversified educational needs

4.7 IMPACT OF SCHOOL ON DEVELOPMENT

Development has been a critical issue in the education process. School holds a central place in the developmental process set forth for the students. They are the longest, organized and sustained extra-familial context for students. From the time they first enter the school until they complete their schooling, students spend more time in schools other than any place outside their homes. Consequently, educational institutions play a central role in both promoting children's acquisition of knowledge and shaping the ways in which they learn to regulate the retention, emotion and behaviour.

When we imagine a school, the thought which comes in our mind is of academic activities. School is supposed to organize academic activities for the cognitive development of the students. We can see significant differences in the cognitive development of the students across schools. The reason behind this may be the way in which the prescribed content is communicated. Students of some schools exhibit high level of understanding of content with its practical implications, whereas some students are very good in theoretical part of their syllabus. Therefore, these academic tasks and instructions may include varied activities like, debates, discussions, group works, projects etc. so that they can internalize the concept rather than just memorize it. Care should be taken on the part of teacher while designing academic tasks and instructions in terms of the individual differences exist in the class. Thus, groups for classroom activities may be formed sometimes on the basis of children's ability level or on the basis of representing a diverse array of abilities brought together in a co-operative work arrangement. Therefore, the class environment can be made co-operative and competitive.

Teacher is the most powerful component of the developmental process of the students. Teachers' behaviour includes three important components which affect the whole classroom environment. These are: (i) teachers' beliefs about the role and nature of ability; (ii) instructional practices; and (iii) teacher-student relationship.

The first aspect is how teacher perceives her/his profession. If a teacher perceives herself/himself as mere instructor, her/his role will be of fact sharing entity. On the

other hand, if s/he considers her/his responsibility as a shaper of the students' behaviour, then her/his approach may be different. S/he will put more efforts to enhance the cognitive, affective as well as psychomotor domain of students' life. A teacher can hold different expectation from various individuals within the same class providing differential teaching-learning practices.

The motivational and emotional support of the teacher influence students' satisfaction, motivation, overall achievement and self-concept. Students feel more comfortable in the class, where their emotions are satisfied. The important impact of the supportive behaviour of the teacher strengthens the relationship of students and teacher. Teachers who are trusting, caring and respectful of students provide the socio-emotional support that children need to approach, engage and persist on academic learning tasks and to develop positive achievement related to self-perception and values.

School also functions as a formal organization. The organizational factors affect children's intellectual, socio-emotional and behavioural development. School climate plays the most important role in the developmental process. For example, appreciation in assembly, ranking on report cards, curriculum offered for various ability levels, and competition may enhance the developmental process of the students. Parents' involvement in the form of monitoring academic activities and homework, providing assistance with homework, engaging children in educational enrichment activities outside school, and active participation in classroom activities and school activities, create positive linkages with the school environment. Moreover, school can establish linkages with society and community by conducting projects and services for them.

Check Your Progress 5

Notes: (a) Write your answers in the space given below.

      (b) Compare your answers with the one given at the end of the unit.

(i) List out any five criteria on which the diversified needs of students are identified.

....

....

....

....

(ii) Mention the points to be kept in mind by the teacher while teaching in diversified nature of class.

....

....

....

....

(iii) List out any five activities for establishing community linkages by school authority.

....

....

....

....

4.8 LET US SUM UP

Development has been the most important issue in education. Human development is dynamic in nature. There are two processes involved in the development process of the individual- Growth and Development. The two terms are sometimes used interchangeably. But they both connote different meaning. Growth basically refers to the quantitative changes in body proportion like change in height, weight, internal organs etc. In other words, growth means increase in size of not only the overall dimensions of the body in terms of height and weight but also of the parts of the body such as head, arms, trunk, heart and muscles. Development, on the other hand, reflects the qualitative changes in the individual. It may be defined as a progressive series of orderly coherent changes. There are many underlying principles of development – Principle of continuity, Principle of individual differences, Principle of sequentiality, Principle of generality to specificity, Principle of interrelation, Principle of interaction, Principle of differentiation in rate, Principle of integration, Principle of predictability.

Development has been later classified under four major stages-Infancy, childhood (early childhood and later childhood), adolescence and adulthood). Each and every stage has its own characteristics

Psychologists have many issues regarding the nature of development. The debate is based on four major issues. They are nature vs nurture, continuity vs discontinuity, activity vs passivity and universality vs context specific.

The individual varies on the developmental aspect, making classroom diversified in nature. There are many components of Education needed to be restructured for satisfying the diverse needs of students. They are content description, knowledge construction, pedagogy, prejudice reduction, school culture and social culture. Moreover, school has great impact on the developmental aspect of the students. The environment of the school affects the cognitive, affective and psychomotor development of the students. One of the components of school is teacher. Teacher's perception about the profession, attitude towards students and subject also have great impact on student's development. Moreover, the school as an organization also plays important role in helping the students in the development of domains but also in establishing linkage with the culture and society.

4.9 UNIT–END EXERCISES

1. Match the stages of development with appropriate characteristic.

	STAGES	CHARACTERISTIC
a.	Infancy	Slow pace of growth
b.	Childhood	Abstract thinking
c.	Adolescence	Conscious about health hazard
d.	Adulthood	Semiotic function

2. Describe principles of growth and development.

3. Discuss the four major issues in development.

4. Conduct a survey for at least 35 children of class IX to study their diverse educational, socio-economic and cultural backgrounds.

4.10   ANSWERS TO CHECK YOUR PROGRESS

1.   (i) a. G, b. D, c. G, d. D

(ii) Refer section 4.3.1

(iii) Write your own observation.

2.   (i) a. Principle of individual differences, b. Principle of sequentiality, c. Principle of predictability, d. Principle of general to specificity

(ii) Refer section 4.3.2

3.   (i)   Infancy, childhood, adolescence and adulthood

(ii)   Refer section 4.4

4.   (i)   Nature-nurture, Continuity vs. Discontinuity, Activity vs. Passivity, Universality vs. Context Specificity

5.   (i)   Intelligence, aptitude, interest, culture and residential background

(ii)   Refer section 4.6 and Fig. 4.6

(iii)   Camps in rural area, NSS activity, Awareness programs, Project, etc.

4.11   REFERENCES AND SUGGESTED READINGS

Aggarwal, J.C. (2013). *Child development and process of learning*. New Delhi: Shipra Publications.

Bornstein, M. A. (1999). *Developmental Psychology: An Advanced Textbook*. New Jersey: Lawrece Erlbaum Associates, Publishers.

Berk,Laura E(2011) *Child Development*; Delhi: PHI Learning Pvt Ltd.

Chauhan, S. S. (2009). *Advanced Educational Psychology*. Noida: Vikas Publishing House Pvt Ltd.

Dash, B. A. (2005). *A Textbook of Educational Psychology*. New Delhi: Dominant Publishers and Distributers.

Krause, K., & Bochner, S. a. (2007). *Educational Psychology for Learning and Teaching*. Australia: Thomson Publications.

Mangal, S.K. (2014). *Essentials of Educational Psychology*. Delhi: PHI Learning Pvt. Ltd.

Ormrod, J. (2000). *Educational Psychology: Developing Learners*. New Jersey: Prentice-Hall Inc.

Sigelman, C. and Rider, E. (2014). *Life-Span Human Development*. USA: Cengage Learning

Skinner, C. (2006). *Educational Psychology*. New Delhi: Prentice Hall of India Pvt. Ltd.

Woolfolk, A. (2006). *Educational Psychology*. New Delhi: Pearson Education, Dorling Kinderslay (India) Pvt. Ltd.

UNIT 5   DIFFERENT PERSPECTIVES IN CHILD DEVELOPMENT

Structure

5.1   INTRODUCTION

We all have personal experience with development and are interested in understanding behaviour of our own, our parents, children and friends. But, it is sometimes difficult to understand as to why some of us behave and act in a particular way and others in a different way. Among the captivating questions we shall address in this Unit are: How do environmental influences shape human development? How do children change physically and mentally as they age?

This Unit will help you to find answers for the above questions and thus make you understand the reasons for different ways children behave as they grow up. We shall begin our discussion by explaining the concept of human development. Having acquainted with the concept of development, you will then study different perspectives in child development. This Unit establishes the basis for the subsequent Units in Block 2 by providing a brief introduction to different perspectives in child development. It also presents some ways that you might use knowledge about children to promote positive development. Finally, this unit addresses you, as a teacher/prospective teacher, to mould your own perspectives while interacting with children based on the underpinning of various perspectives. Hope that you will enjoy reading this Unit and will use the knowledge gained in your classroom.

5.2 OBJECTIVES

After going through this Unit, you should be able to:

- define the concept of development;

- discuss the various perspectives in child development;

- explain the biological perspective in child development;

- examine the life-span perspective in child development;

- analyze bioecological perspective in the context of child development;

- discuss cognitive and socio-cultural perspectives of child development; and

- apply the knowledge of various perspectives in child development while dealing with children.

5.3 DEVELOPMENT: THE CONCEPT

In Unit 4 you have studied about the terms growth and development and how each differs from the other. Now, you know that development describes the growth of human beings throughout the lifespan, from womb to tomb. It refers to qualitative and quantitative changes in child's growth. Development entails many changes which fall into four broad domains- (i) physical development, (ii) cognitive development, (iii) psychosocial development, and (iv) moral development. You will study these changes in detail in Unit 6. In brief, you may explain development as a series of overall changes that occur in an individual due to the interaction between biological and environmental factors.

5.4 DIFFERENT PERSPECTIVES IN CHILD DEVELOPMENT AND THEIR EDUCATIONAL IMPLICATIONS

There are various ways to analyze and understand human behaviour. A variety of perspectives in child development can be utilized when studying as to how individuals think, feel, and behave. What we know about child development is grounded in various perspectives on development. Different perspectives on development explain behaviour as well as predict behaviour that can be observed.

Let's consider the following illustration:

> *Case 1: Three and a half year old Nitha has started trying to dress herself each morning. She regularly wears her shoes on the wrong feet, and puts on her frock inside-out. When someone comes for her help, Nitha gets angry and shouts, "No! Me do it!"*
>
> *Why does Nitha behave this way?*
>
> *Is her behaviour related to her age, individual temperament, family relationship or rearing pattern?*

When you try to find answers to these questions, you have to think in various perspectives as the way developmental psychologists do. They attempt to understand and explain the behaviour that occurs in our lives. Different developmental perspectives have been developed to explain the various aspects of human development. You can read some of the major perspectives given in figure 5.1.
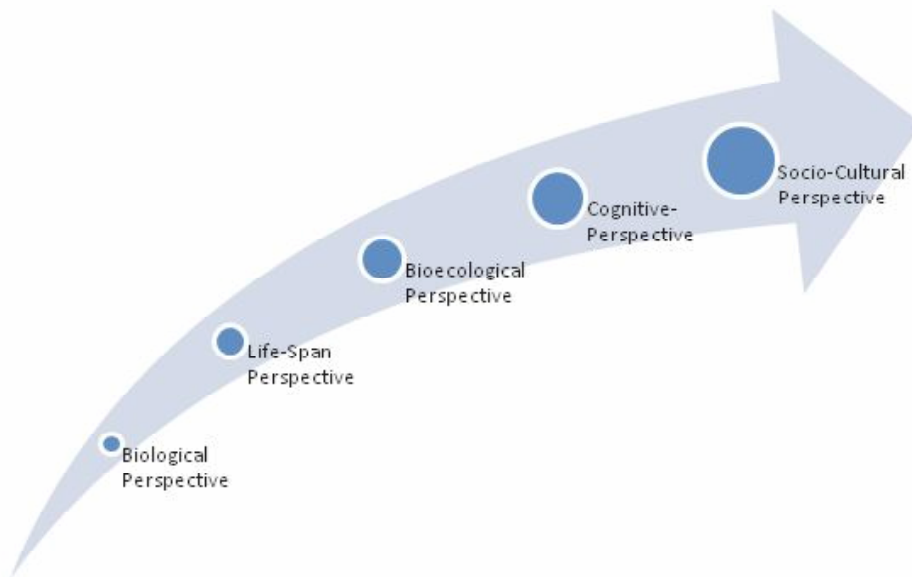
Fig. 5.1 Different Perspectives in Child Development

From the above figure, you have seen that there are different perspectives by which the development of a child can be studied. These perspectives describe and explain human development. They offer divergent lenses through which we understand the developmental phenomena. In the next sub-section, we shall discuss the following perspectives:

● Biological Perspective

● Life-Span Perspective

● Bioecological Perspective

● Cognitive Perspective

● Socio-cultural Perspective

5.4.1 Biological Perspective

Let's begin our discussion of perspectives with the biological perspective. In the development of psychology, physiology plays a major role and hence this perspective is known as biological psychology. Sometimes, it is named as biopsychology or physiological psychology due to the emphasis on the physical and biological bases of behaviour. In biological perspective we look at how genetics influence different behaviours or how damage to specific areas of the brain influence behaviour and personality of an individual. It assumes that human behaviour and thought processes have a biological basis. In this perspective, human problems and actions are looked at and perceived in different ways.

For example, aggression has been viewed in different perspectives by different psychologists. Psychoanalysts viewed aggression as the result of childhood experiences and unconscious urges. Behaviourists perceived aggression as a behaviour shaped by reinforcement and punishment. The biological perspective, on the other hand, look at the biological roots that lie behind aggressive behaviours. They might consider genetic factors or the type of brain aberration that may lead to display of such behaviour.

We shall discuss some viewpoints related with biological perspective. There are two viewpoints-(i) Maturation viewpoint of Arnold Gesell and (ii) Attachment viewpoint of John Bowlby and Mary Ainsworth. Let us discuss each viewpoint in detail.

5.4.1.1   Maturation Viewpoint

Gesell was one of the first psychologists to systematically describe children's physical, social and emotional behaviour through a quantitative study of human development.

Fig.5.2: Arnold Gesell (1880-1961)

He was a strong proponent of the maturational viewpoint of child development. According to maturational viewpoint, all children go through the same stages of development based on the maturation of their brain and body. This includes everything from the changing ability to grasp objects in infancy to the changing way in which children acquire or collect objects. You might have noted that development follows an orderly sequence and that the biological and evolutionary history of the species decide the order of this sequence. This viewpoint has been criticized as it did not acknowledge individual and cultural differences in child development. He created a foundation for subsequent research that described both average developmental trends and individual differences in development. Based on this viewpoint, a normative approach for studying children was initiated. According to the normative approach, large numbers of children at various ages are observed and a typical 'age' or 'norm' for achieving various developmental tasks is determined.

Educational Implication of Maturational Viewpoint

We can see the impact of the maturational viewpoint of Arnold Gesell in school readiness of children and in early childhood classrooms. According to maturational viewpoint, readiness is seen as a phenomenon that happens 'within the child'. Though, we know that all children follow same stages of development, there will be differences in rate of development due to genetic make-up.

Another area where maturational viewpoint had its impact is in early childhood classrooms. It states that children are considered not fit for reading until they had a mental age of six and a half years (Morphett & Washburne, 1931).Consequently, in some preschool and kindergarten, readiness activities were developed for children who were not ready to read yet. This theory is partially responsible for the establishment of kindergartens and pre-schools.

5.4.1.2   Attachment Viewpoint

Next, we will examine attachment theory which was first proposed by John Bowlby and later on by Mary Ainsworth. Before going into the details of this viewpoint let us consider the following case:

Case 2: Roby, aged 11, attended special school from an early age due to serious speech impediment and behavioural difficulties. His parents, despite their own limitations caused by childhood and social deprivation, had over a long time, been interested in his development. They had attended school functions, taken him on annual holidays and paid particular attention to his health. All these positive features of Roby's life gradually disappeared when his parents started open hostility about the child. When his father left, he tried to maintain contact but suffered for that, to the extent that he ran away from his angry mother to stay with his father. He, then, repenting on his action returned to his mother, but again started feeling love towards

> *father. Roby's teachers found some changes in him: he could not concentrate; he was the last to leave school playground; he was totally unreceptive to the speech therapy provision in his education. His intellectual achievements within the classroom ceased.*
>
> *How did Roby's interest in studies disappear?*
>
> *What kept Roby away from developing close relationship with his parents later on?*
>
> *In what ways teachers can help Roby?*

These questions might have arisen in your mind while going through this case. You can discuss with your friends about these questions. The above case throws light on the importance of stable parent-child as well as teacher-child relationship. Subsequent paragraphs, deal with the details of attachment viewpoint and attachments needed during childhood and adolescence stages.

Attachment theory was first formulated by British psychiatrist John Bowbly(1907-91), and later on elaborated by his colleague, Mary Ainsworth, an American developmental psychologist. The theory of attachment focuses on the importance of the early parent-child relationship in developing desirable social, emotional and cognitive development in children. You may describe attachment as a strong affectional tie that binds a person to an intimate companion. You know that family is the first place where a child learns and experiences attachment. The quality of the relationship between parent and child is important in further growth and development of the child. Attachment starts in infancy and lasts throughout the life-span. For most of us, the first attachment we form, around 6 to 7 months of age, is to a parent. In rare cases, the first care-givers may be siblings or any other relatives. As studied in Unit 2, in diverse growing up contexts, there will be differences in attachment between caregiver and child. The primary caregivers are responsible for moulding the character and personality of the child. The mother has some kind of bond to the child naturally because she carried her/him in womb for 9 months whereas the father has to establish a bond after the child is born. On the basis of the interactions with caregivers, infants build up expectation about relationships in the form of **internal working models** that aid to process social relationships. **Internal working model** means the cognitive representations developed within the child about herself/himself and others. Securely attached infants will form internal working models reflecting their love seeking bond towards others. Secure attachment is theorized to be an important foundation for psychological development later in childhood, adolescence, and adulthood. On the contrary, insecurely attached infants subjected to abusive or neglectful care may develop inside a feeling of rejection by everyone and consider others as unreliable. Insecure attachment is theorized to be related to difficulties in relationships and problems in later development.

Ainsworth's most important contribution to attachment theory is the '*Strange Situation*', a well-known procedure for measuring the quality of an attachment. It consists of eight episodes that are depicted in the table 5.1.

Table 5.1: The Episodes of the Strange Situation

Episode	Events	Attachment Behaviour Observed
1.	Experimenter leaves parent and infant to play	
2.	Parent watches while infant plays	Consider parent as secure basis

3.	Stranger enters and talks to parent	Stranger anxiety
4.	Parent leaves; stranger lets infant play, offers comfort if needed	Separation anxiety
5.	Parent returns and consoles the infant; stranger leaves	Reactions to reunion
6.	Parent leaves	Separation anxiety
7	Stranger enters, offers comfort	Stranger anxiety
8.	Parent returns, offers comfort, lets infant return to play	Reactions to reunion

(**Source**: Ainsworth et.al. (1978). Patterns of attachment. Hillsdale, NJ: Erlbaum)

The above table shows the gradual increase in the level of stress infants experience as they react to the approach of an adult stranger and on the departure and return of their caregiver. Ainsworth further classified four types of quality of attachment on the basis of an infant's pattern of behaviour across the eight episodes. Read the following table:

Table 5.2: Attachment Classification and Developmental Outcomes

Type of Attachment	Main Idea	Possible Developmental Outcomes in Children
Secure attachment	Relationship in which infants have come to trust and depend on their mothers	• High social competence • Maintain warm, trusting and long lasting relationships with others • Better school adjustment • More positive perception of self
Resistant/ Ambivalent attachment	Relationship in which, after a brief separation, infants remain angry and are difficult to console	• Frequent conflict between parents and adolescents • More likely to be pampered by teachers • More likely to be victims at school • Anxiety disorders
Avoidant/ Dismissing attachment	Relationship in which infants keep away from parents when they are reunited following a brief separation	• Difficulty with emotional closeness • Less socially competent • More likely to be victims at school • More likely to be rejected by teachers
Disorganized/ Disoriented attachment	Relationship in which infants do not understand what's happening when separated and later reunited with their mothers	• Problems with integration of identity • Exhibit substantial aggression • Self-injury • Conduct disorders

From the table 5.2 you have understood that quality of attachment in childhood has greater impact in later stages of life. You have seen children who are respectful and closer and some who misbehave with you. We all are conversant with some parents complaining that their children in adolescence show less attachment towards them and more to their peers. As the peers have the same mind set as that of adolescents, their relationship becomes stronger. Attachment relationships provide the foundation of social learning.

Just like infants, adolescents need security and support of parents to become independent and self-sufficient individuals. Sometimes you may observe that adolescents who enjoy secure attachment relationships with their parents generally have a stronger sense of identity, higher self-esteem, greater social competence, better emotional control and less behavioural problems. The next section will elaborate on how attachment is important in school context.

Educational Implication of Attachment Viewpoint

As the child grows up, s/he starts mingling with the outside world. Schools may be considered as the first social system outside the family where children develop attachment towards peers and teachers. That's why a school is considering as a 'home away from home'. You might have dealt with adolescents who express some kind of behavioural problems especially while dealing with teachers and peers. Let us go through this case.

Case 3: Sneha became part of boarding school at the age of seven and her parents left abroad with the second child. In her infancy stage, her parents failed to fulfill her needs. Now she is admitted to a boarding school and a fear of abandonment develops in her mind. She shows distrust in the classroom. She shuts down emotionally and freezes out at something sad or infuriating. She dislikes timetable routine in the boarding school and started misbehaving with her friends and teachers. She used to express that her parents went with her younger brother as she is an 'unwanted child'.

What is Sneha's problem? What type of attachment her parents gave to her? Though her parents provide money for her studies, why does she still feel as an unwanted child? What would be your response if you would be Sneha's class teacher?

From Sneha's case we may conclude that a secure environment is needed in fostering of a child. With a secure sense of self, children will be able to share with their teacher and their peer group. They consider the teacher acting as the substitute attachment figure. They believe that interactions with adults will be affirming of their own worth. This frees them to take risks and tolerate frustrations in the learning process.

However, children with attachment difficulties will typically show distrust in the classroom which may manifest as lack of concentration. Attachment awareness in schools is needed to resolve the issues involved and to support children with attachment difficulties, thereby help improvement in behaviour and overall well-being of both children and staff. Though the teacher cannot be a mother of a child, they can act as a surrogate of the child. It is also necessary to understand the psychosocial and learning needs of their children.

It is a common belief in psychology that "nature gives parents a baby; the end result depends on how they nurture it. Good nurturing can make up for many of nature's mistakes: lack of nurturing can trash nature's best effort" (Harris, 1998, p. 2). Now let us discuss the life - span perspective.

Check Your Progress 1

Notes: (a)   Write your answer in the space given below.

         (b)   Compare your answer with the one given at the end of the unit.

i)   How does maturational viewpoint differ from attachment viewpoint in their explanation of child development?

....

....

....

....

5.4.2 Life-Span Perspective

The perspectives of child development discussed so far have paid little attention to the adult years of the life–span. While examining the modern perspectives, we could realize that they emphasize the importance of viewing human development as a life-long process. If development continues from conception to death, the science of development consists of the study of those changes and continuities which the life - span perspective takes into consideration. It is not related to a specific area of development (for example, psycho-social) or age period (adolescence) rather, it attempts to understand the development of an individual throughout the life within a changing socio-cultural context. Think of yourself as an infant, as a child, as an adolescent and an adult and imagine how those years influenced the kind of individual you are today. Let us now explore the concept of life-span development and its importance in understanding development of an individual, and also discuss various sources of contextual influences. Before entering into the details of life-span perspective, let us reflect on the following questions:

● *How does our understanding of the world grow and change throughout our lives?*

● *How do our personalities and relationships develop through the entire span of life?*

● *How does achievement motivation of a child vary from childhood through adulthood?*

The above highlighted questions emphasize that a life span perspective is essential in order to get responses. According to the life-span perspective, human development is multiply determined and cannot be understood within the scope of a single framework. It is a field of study that examines patterns of growth, change and stability in behaviour that occur the entire life-span. We all know that no single stage of a person's life (such as infancy, early childhood, later childhood, adolescence, adulthood and old age) can be understood apart from its origins and its consequences. To understand a specific stage, the interplay of social, environmental and historical changes must also be considered. In the next section we will discuss a model developed by Paul Bates and his colleagues.

5.4.2.1 Selective Optimization with Compensation Model (SOC)

Paul Baltes and his colleagues developed a model named **Selective Optimization with CompensationModel (SOC)** wherein an interaction between three processes, i.e., **selection, compensation** and **optimization** are depicted. Selection processes serve to choose goals, and life tasks, whereas optimization and compensation lead to enhancing chosen goals. For example, older musicians may reduce the number of

pieces they play (selection), rehearse them more often (optimization), and sing them in a lower key (compensation). This way they continue their music concerts. Take another example, suppose a child's ambition is to become a doctor, among the various careers s/he has opted for the profession of a doctor (selection) based on her/his interests and aptitude. S/he has to work hard to score good marks in science subjects (optimization). If s/he lacks current scientific knowledge will do additional readings to increase the knowledge in new scientific areas (compensation). Here you can see that for achieving desired ambition, the child acquired and applied goal-relevant means and practise goal-relevant skills.. The basic assumption of the selective optimization with compensation (SOC) model is that the three processes form a system of behavioural action that generates and regulates development and aging.

By becoming older, individuals **select** from a range of possibilities due to two reasons-i) Elective selection and ii) Loss based selection. Elective selection occurs when one chooses to reduce one's involvement to fewer domains as a result of new tasks. For example, during 10th class, students drop out of some social organizations because of more time required for her/his studies. Loss based selection occurs when one reduced involvement in some other activities as a result of expected losses in personal or environmental resources. Or it refers to restructuring of one's goal hierarchy by emphasizing on the most important goal. **Compensation** means the use of alternative methods when the earlier preferred methods lost its effectiveness. It is different from selection in the sense that selection refers to choice of goals whereas compensation refers to choice of methods. For example, a visually impaired student who loses her/his ability in reading may compensate in reading by using Braille system.

The last process is **optimization** which refers to the application of methods adopted to achieve selected goals. Optimization involves minimizing losses and maximizing gains. The focus of optimization is on the best match possible between one's resources (biological, psychological, and socio-cultural) and one's desired goals. As individuals cannot achieve optimal outcomes in everything, development becomes an active process of selecting the right goals and sometimes compensating to achieve the desired goal.

5.4.2.2 Characteristics of Life-Span Perspective

Life-span development expert, Paul Bates and his colleagues provide many of the main approaches to human development based on this perspective. They highlighted the following features of life-span perspective as follows:

Table 5.3: Characteristics of Life-Span Perspective

Key Features	Main Idea	Example
• Development is a life-long process	• It rejects the traditional notion that childhood is the main period of development • No age period dominates development • Development is best seen in the context of the whole life-span	Spiritual development
• Development is multidimensional	• At every age mind, body, interest, emotion and relationship change and affect one another. Development occurs at various dimensions such as physical, psycho-social, cognitive dimensions • Each dimension has various components	Memory, Thinking, Intelligence, Information processing, attention are some of the components of cognitive dimension.

• Development is multidirectional	• Different capacities show different patterns of change over time • Development involves both growth and decline • In one's life time, some dimensions expand and others shrink	Acquiring one language in early developmental stage is easier than acquiring another language in later developmental stage
• Development is characterized by lifelong plasticity	• Plasticity refers to the capacity to change in response to positive or negative environmental influences. • One's capacity is not predetermined. • Through practice many skills can be improved. • Plasticity continues into later life-that aging process is not fixed but rather can be changed considerably depending on the individual's experiences.	Older adults who regularly engage in mentally alert activities such as playing chess, participating in debates etc. have less chance to develop Alzheimer's disease (Vergheseet.al. 2003).
• Development is the result of multiple causation	• Human development is the product of many interacting causes. It can be either internal and external forces or both biological and environmental. • Some experiences are common to all at similar ages, others are common to people of a particular generation and still others are unique to the individual.	Two children growing up in the same family will have different experiences if one is a differently abled child and the other a normal one.
• Understanding development requires multiple disciplines	• Human development is influenced by various aspects ranging from biochemical reactions to historical events. Hence the study of human development is more interdisciplinary. • Psychologists, sociologists, anthropologists, biologists, historians etc. have something to contribute to unlock the mysteries of development throughout life- span.	Influence of family and schools on the social development of child Influence of heredity and environment on the intellectual development of child
• Development involves both gain and loss	• Gain and loss are intertwined during every phase of the life span. • Baltes states that gain inevitably brings with it loss of some kind, and loss brings gain. Gain and loss occur jointly.	As children gain command over language, they lose their ability to use 'babble sounds'.
• Development is contextual	• All development occurs within a context such as family, orphanage, school, peer groups, cities, neighbourhoods and so on. • Each of the contexts is influenced by historical, social, political and cultural factors. • As result of changes, contexts exert three types of influences-(i) normative age-graded influences, (ii) normative history graded influences and (iii) nonnormative life events. (i) Normative age-graded influences imply commonalities and experiences shared by individuals within a given age-range. (ii)Normative history graded influences are impacted by ideological, demographic and other social context variables. • Nonnormative life events are unusual occurrences that affected an individual's life.	Behaviour of a child reared in a dysfunctional family is different from that of a child grown up in a normal family. Attaining puberty, beginning schooling, retirement from job Terrorist attack, Indo-Pak war Teenage pregnancy, loss of sight during childhood

5.4.2.3 Educational Implication of Life-Span Perspective

The major contribution of life-span perspective in the field of education reflects in the concept and goals of education. Traditionally, you may define the goal of education in terms of either normative or differential views of individual development. You may know that a normative pattern of development has led to the focus on developmental tasks. On the contrary, the focus on individual differences emphasizes on differentiation and individualization of educational objectives. But in life-span perspective, both normative and differential developmental patterns that take place in various socio-cultural contexts are taken into consideration. Moreover, educational goals must be responsive to social change and education can also direct the nature of such change. Through this perspective, the role of education that helps individuals to acquire the generic skills for adapting and optimizing their development in relation to social change and future change is possible.

Another area where this perspective has contributed is in instructional methodology. Individual differences in almost every type of intellectual capacity increases through out one's life-span. Here lies the importance for individualized instruction in education. Open and distance learning which caters most to the needs of adult learners has taken into account the aspect of individual differences and the instructional methodology to be used. Based on the life-span perspective, your role as a teacher is to be a facilitator instead of director of learning. When society and teacher determine education of children, it is children's freedom to decide the method of learning. You may feel that how developmental changes in the children across the life-span focus the need for developmentally appropriate classroom. It is a classroom where children can initiate their own learning and meets the needs of each child by providing materials that are age appropriate, individually appropriate, and culturally appropriate. This perspective also underlines the need for qualitatively different types of training for teacher trainees working with different age groups. In order to facilitate and optimize the development of learners, it is necessary to provide varying educational opportunities. In short, through the life-span perspective the concept of education broadens beyond the traditional concept of education.

Activity 1

Describe an event in your development that differs from your parent or grandparent when s/he was your age. Using key features of life-span perspective, explain this diversity in development.

....

....

....

....

5.4.3 Bioecological Perspective

Consider this case:

Case 4: Thara is a teacher working in a junior high school in a rural area. She received all her education from urban institutions. She faced difficulties in managing her classroom. Observing children's behavioural patterns towards teachers as well as peers, she felt that it was tough to handle these children. Her colleagues told that these children come from various socio-economic background and diverse nurturing contexts such as single-parent

family, extended family, nuclear family, orphanages etc. Most of the children are first generation learners. Some children are aggressive in nature and some short-tempered. Her first year was tough. Being constantly alert in preparing various activities, showing attachment to children, meeting parents and conducting remedial classes after school hours demanded lot of time and energy on her part. She tried to understand their family background. She found that parents deliberatively disengaged from children's learning process at home either due to lack of education or interest. She implemented group activities in the classroom to arouse interest in children and paid more attention in developing their reading and writing skills. She convinced parents to take interest in their children's studies.

Here, we find that Thara is a teacher with bioecological perspective in the development of her children and in their learning process. She tried to understand her children and their background. She interacted with children, parents and fellow teachers. From her understandings she derived some common developmental needs and competencies such as secure relations with teachers and caregivers, get control over one's own behaviour and individual differences among children. You cannot understand the life course of a child without understanding how that child interacts with her /his environment. In the 1970s, Urie Bronfenbrenner (1917-2005) developed the ecological viewpoint to explain how all aspects of the environment affect the child and in turn how the child affects her/his environment. The word 'ecology' describes how living things fit in with their environment. Later, it is renamed as bioecological model of development as it emphasizes how biology and environment interact to produce development. This model provides a scheme for understanding how different social processes influence development in different periods. In bioecological viewpoint, human development is inseparable from the environmental contexts in which a child develops. It considers that all aspects of development are like the threads of a spider's web, so that no aspect of development can be isolated from others. Bronfenbrenner divided the environment into the four levels as shown in figure 5.3.
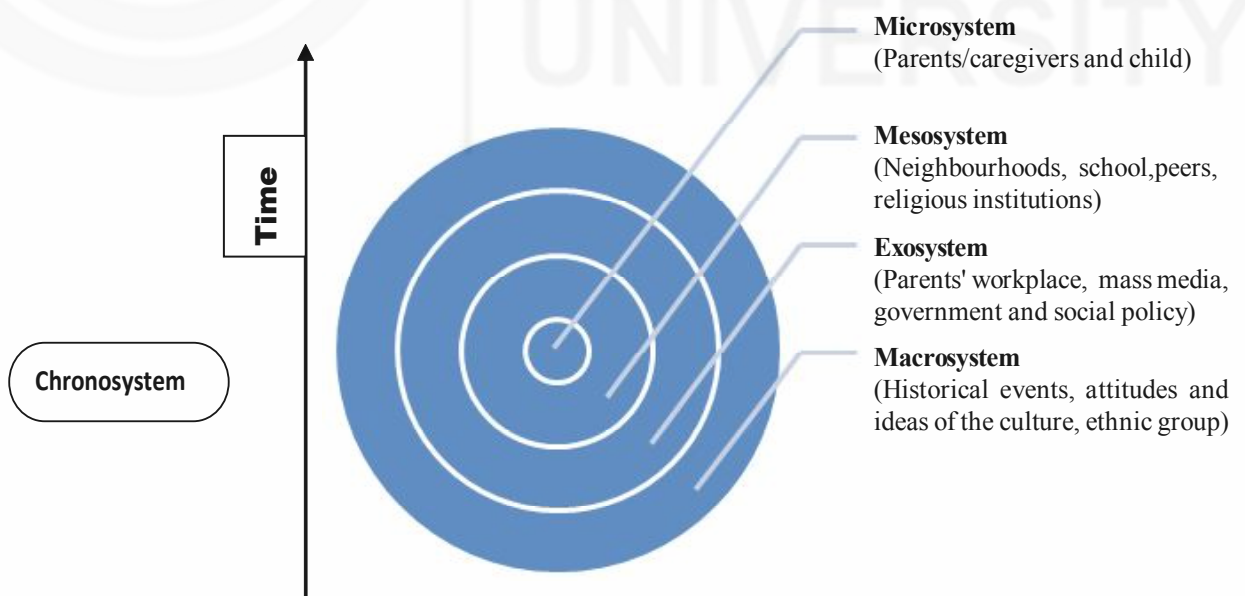
Fig.5.3 : Bronfenbrenner's Bioecological Model of Development

Bronfenbrenner proposed that individuals grow and develop within a nested set of influences that is classified as the microsystem, mesosystem, exosystem, and

macrosystem. The **microsystem** is the immediate environment in which the child lives in. We know that the primary microsystem for a child is the family. The developing child may also experience other microsystems such as day care centre (crèche) or grandmother's house, neighbourhood environments, etc. You would agree with us that interactions with immediate environment have an effect on the growing up of the child. Microsystems really influence development. The more encouraging and nurturing these relationships and places are, the better the child's growth will be. Furthermore, how a child acts or reacts to these people in the microsystem will depend on how they treat her/him in return. You have realized the importance of family, day care centers, peer groups, schools and neighbourhood environments on child development.

The **mesosystem** consists of the interrelationships or linkages between two or more microsystems. Microsystems themselves are connected to create the mesosystem. For example, a marital conflict in the family (one microsystem) could make a child withdraw from teachers and friends in the school (a second microsystem) and as a result her/his experience there become less intellectually stimulating. Take another example that a child's parent or caregiver (one microsystem) takes an active role in her /his schooling such as participating in parent-teacher meetings (a second microsystem) and enquiring about the progress of the child, this will help to ensure the overall growth of the child. Thus, you have come to know that mesosystem provides linkages across microsystems, because what happens in one microsystem is likely to influence others.

The **exosystem** refers to social settings that a child may not experience directly but that can influence her/his development. For example, if a child's parent lost job that may have negative effects on the child as she/he may feel difficulty in paying fees and purchasing other items. On the other side, a promotion of parent with hike in salary may have a positive influence on the child reassuring the ability to meet her/his educational needs.

The **macrosystem** is the largest cultural context in which the microsystem, mesosystem and exosystem are embedded. It consists of cultural norms that guide the nature of the organizations and places that make up one's everyday life. A mother, her workplace, her child and the child's school are part of a larger cultural setting. For example, the macrosystem in India includes the ideology of democracy and individual freedom which affect the growth of the child as a responsible citizen. The macrosystem evolves over time and each posterity may develop in a unique macrosystem.

In addition to the microsystem, mesosystem, exosystem and macrosystem, Bronfenbrenner introduced the concept of the **chronosystem** ('chrono' means time) to obtain the idea that changes in people and their environment occur in a time frame. We cannot study development in a static stage; we must use a video camera and understand how one event leads to another. For example, societal events like economic depressions, social policies, wars and technological breakthroughs change individual development while individuals, in turn, affect the course of history. (Modell & Elder, 2002).

You might be thinking how to analyze a problem using Bronfenbrenner's bioecological model. For example, suppose you have come across that most of the teenagers are using alcohol in your school how might you intervene in each of Bronfenbrenner's environmental systems? Thinking of the family and peer group microsystems in which adolescents develop, you could provide an alcohol prevention programme to students, parents or caregivers. In the case of mesosystem, you could use students who are peer leaders to convince victimized students to keep away from alcohol. You could also conduct alcohol-free social events at school to reduce the alcohol usage menace.

Considering the exosystem, the government policy that no liquor shops should be established close to the educational institutions (for example, the ruling of Madras High Court that no liquor shops could be established around school campuses and a minimum distance of 100 metres is required in case of location of liquor shop from the school) might be effective. Finally, you may conclude that the real source of the problem lies in the macrosystem (culture) that tolerates drinking among adolescents especially in the Indian context of reducing the age for alcohol drinking from 21 to 18 years, a community campaign against alcohol consumption could be conducted.

5.4.3.1 Educational Implication of Bioecological Perspective

From bioecological viewpoint, environment influence development by providing opportunities or setting constraints in children's everyday activities. You may agree that the contribution of nature and nurture cannot be separated easily as they are part of a dynamic system and has dire implications in various contexts like family, school, media and the wider community. You have studied that how this perspective focuses on the importance of understanding a child, not on her/his own but within a macro context evolving through a time frame. It emphasizes that children are affected by family members and friends and indirectly by social systems such as neighbourhoods and religious institutions which, in turn, are affected by the beliefs and heritage of one's culture. In case 4, teachers like Thara may reflect on her classroom environment the message that a child is being raised in different socio-economic backgrounds. Such a teacher may also continue her partenership with child's family and other teachers by engaging in frequent dialogues about this topic.

It is necessary for caregivers and schools to provide long- term relationships to the child. In learning process, it is the duty of teachers to know each child in his/her microsystem, thereby linking to the mesosystem. This ecological perspective serves as a basis for understanding the development of social competence in preschoolers. Instead of looking at single variable like socio-economic status or family stress as predictors of children's social competence, it examined a nested array of variables that would influence social competence. Such variables are individual characteristics, family characteristics, teacher behaviour and classroom climate. The issues among adolescents which you will study in Unit 9 of Block III should be comprehended in terms of bioecological perspective instead of treating them as individual issues.

Another contribution of bioecological perspective is the application of theory to policy, action research, and making change happen. The ecological belief that all levels of society impact human development is involved in framing social policy and programmes at all levels of government. This perspective has practical applications in work with children and with adolescents. It expresses that the environment of the child, the community setting of the mother or childcare institutions and the political structures within which they are living are all relevant when considering programmes to protect and improve children's development. This perspective makes us to understand that the development of children in one culture or one group within a culture may not apply equally to children in other societies or cultural groups. In short, it is better to conclude that a child is not merely an outcome of development but a shaper of it.

Check Your Progress 2

Notes: (a) Write your answers in the space given below.

(b) Compare your answers with the one given at the end of the unit.

i) Match each statement with the correct level of the ecological system that is given in bracket.

(microsystem, mesosystem, macrosystem, exosystem, chronosystem)

Sl.No.	Statement	Level
a.	A parent attends parent-teacher meeting to know the progress of the child	
b.	The number of employed parents who send their children under the age of 3 to crèche has increased recently when compared with earlier days.	
c.	A parent lost a job that made him to re-plan his expenditure.	
d.	A child's preschool teacher taught her/him to sing 'twinkle twinkle little star'.	
e.	In India, a male (government servant) is entitled to avail 15 days paternity leave during wife's confinement.	

ii) What are the five levels of 'ecology' that influence child development according to Bronfenbrenner?

....

....

....

5.4.4 Cognitive Perspective

Case 5: When 3-year old Faizal is asked how rain drops look like, he answers "it looks like tear drops". When his 11 year-old sister, Amina is asked the same question, she replies: "the shape of raindrops is based on their size. If it is small, it is spherical in shape and if it is large, the shape gets distorted until it breaks into smaller drops." And the answer of their cousin Bushra, studying meteorology in graduation, includes a discussion on the shape, surface tension of water and air pressure pushing on the falling raindrops.

A developmentalist using cognitive perspective will analyze the above answers in terms of one's degree of knowledge and understanding or cognition. The cognitive perspective is concerned with the development of a person's thought processes. It looks into how we think and interact with the world. We have noted in the above case that children's construction of knowledge changes over time. In the cognitive-developmental perspective, we will discuss three approaches related with cognitive development. They are:

● Piagetian Approach or Cognitive Developmental Approach;

● Information-Processing Approach; and

● Developmental Cognitive Neuroscience Approach

5.4.4.1 Piagetian Approach or Cognitive Developmental Approach

Famous cognitive psychologist, Jean Piaget proposed an important theory of cognitive development. This perspective focuses on how children construct their understanding of the world as they pass through four stages of cognitive development through assimilation (responding according to existing schemas) and accommodation (modifying a schema to fit new information). Each of these age-related stages consists of different ways of thinking. Each stage represents a fundamental change in how children understand and organize their environment. In Piaget's words, it is said that 'Children think differently from adults'. A child's cognition is qualitatively different from one stage to another as shown in the following table:

Table 5.4: Piaget's Stages of Cognitive Development

Stage	Approximate Age	Features
Sensorimotor stage	Birth to 2 years	Infants gain knowledge of the world through their senses and motor skills.
Preoperational stage	2 to 7 years	Children begin to use words and numbers to represent aspects of the world through her or his perspective.
Concrete operational stage	7 to 11 years	Children begin to think logically about concrete things but have difficulty in understanding abstract concepts.
Formal Operational stage	11 years and beyond	Adolescents think about abstract and theoretical concepts; use logic to find creative solutions to problems.

From case 5, you have read the various responses given by children in different age groups regarding the appearance of rain drops. By using the cognitive perspective, developmental researchers try to explain how children and adolescents process information and how their understandings affect their behaviour.

The criticism levelled against Piagetian perspective is that his theory perceives cognitive development as discontinuous. You have read how Piaget presented the four distinct stages in which the quality of cognition differs from one stage to the next. However, in the view of developmentalists, growth is considered as a continuous process. They have put forward another perspective known as the information processing approach which we will discuss in the next paragraph.

5.4.4.2 Information-Processing Approach

Information-Processing approach traces the ways individuals manipulate information, monitor it and strategize about the information. As this approach is built from Piagetian research, it is also known as Neo-Piagetian approach. It explains how the thinking process of children develops through childhood and adolescence. Unlike children, adolescents develop a larger capacity for processing information enabling them acquire more complex knowledge. Like computers, human cognition also consists of mental hardware and mental software. Mental hardware consists of cognitive structures, including different memories where information is stored; whereas mental software includes organized sets of cognitive processes that assist individuals to complete specific tasks. For example, if a student wants to do well in an examination, s/he must encode the information during reading, store it in memory, and then retrieve the necessary information during the examination.

Let us understand how this approach explains thinking process during childhood and adolescence stages. It is similar with the advancements made in personal computers. Compare the computers built a decade ago with that of modern computers. The modern computers have better hardware and software. Likewise, older children and adolescents have better hardware and better software. You may get more vividness when you observe that older children easily solve mathematics problems better than younger children who rely more on calculators. An important aspect of development is to learn good strategies for processing information. In the

next paragraph, we will examine the third approach, i.e. Developmental Cognitive Neuroscience approach in detail.

5.4.4.3 Developmental Cognitive Neuroscience Approach

The goal of developmental cognitive neuroscience is to know how brain function gives rise to mental processes such as logical thinking, reasoning, and vision. This approach looks at cognitive development through the lens of brain processes. '**Developmental cognitive neuroscience** is an interdisciplinary scientific field devoted to understanding psychological processes and their neurological bases in the developing organism. It examines how the mind changes as children grow up, interrelations between that and how the brain is changing, and environmental and biological influences on the developing mind and brain' (Wikipedia, the free encyclopedia). The two main principles around which this approach revolves on are:

● Different information-processing operations are performed at different brain areas; and

● A cognitive performance consists of breaking down the overall task into component information processing activities and determining the area of brain that performs the activity.

From the above principles, we may notice a brain-based approach in studying the mental operations. This approach has taken into account the neurological activity that underlies thinking, reasoning and other cognitive behaviour. For example, consider the interrelation between motor skills and visual-motor coordination that requires high cognitive functions which attains maturity by late adolescence. We see children suffering from Attention-Deficit Hyperactivity Disorder (ADHD), a developmental disorder that affects both cognitive and motor functioning. In many children with cognitive developmental disorders, movement deficits are evident. More research is underway on dyslexia, specific language disorder and autism. Interaction of genetic and environmental factors during development is another area of concern of developmental cognitive neuroscience psychologists. Thus, this approach studies how the physical brain and nervous system along with other intangible factors lead to patterns of thought and behaviour.

When we go through the Piagetian information processing and developmental cognitive neuroscience approaches, we may see that they do not take into account the socio-cultural context in which development takes place. Though socio-cultural perspective comes under the category of cognitive perspective, we will discuss this perspective in detail in the forthcoming paragraphs.

Check Your Progress 3

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) How information-processing approach and developmental cognitive neuroscience approach are differing from each other?

....

....

....

....

5.4.5   Socio-Cultural Perspective

Socio-cultural perspective emphasizes the role of culture and social interaction in the process of child development. Lev Vygotsky, the propounder of socio-cultural perspective, focuses that a child's thinking does not develop in a vacuum but rather is influenced by the sociocultural context in which s/he grows up. Vygotsky believed that the development of memory, attention and reasoning includes learning to use the language, mathematical systems and memory strategies that is prevalent in a society. Thus, it is clear that each culture provides its members with certain tools of thought. The ways in which individuals in various cultures passed information to posterity is embodied in various languages; thereby shape thoughts. Hence we may say that thinking varies across social and historical contexts.

The collaborative strategy that is used in classrooms with which you are familiar is developed from this socio-cultural perspective. In this strategy, knowledge is not generated from within the individual but rather is constructed through interaction with other people who have different thought processes and who belong to various cultures. When Piaget considered children as independent explorers, Vygotsky tended to see them as social beings who develop their minds through their interactions with parents, teachers, and others as scaffold.

Check Your Progress 4

Notes : (a)   Write your answer in the space given below.

(b)   Compare your answer with the one given at the end of the unit.

i)   What role does culture play in child development?

....

....

....

....

5.4.5.1   Educational Implication of Cognitive Perspective

Piagetian perspective on qualitative development had an important impact on education. We may note that many educational programmes are now built upon the belief that children should be taught at the level for which they are developmentally appropriate. Piaget's theory has been applied in many ways –from the creation of innovative learning toys for children to the ways teachers plan lessons. Beyond this, a number of instructional strategies have been derived from Piaget's work that includes providing a supportive environment, utilizing social interactions and peer teaching.

Information-processing approach has great implications in teaching and learning process especially for students with learning and behavioural problems. As a teacher or prospective teacher, you could modify your teaching-learning environment to facilitate the attention of students through various meta-cognitive strategies. You could use various teaching skills to retain information for a long time active in working memory. This approach also led to the development of Atkinson and Shiffrin model of memory which is similar to computer analogy. According to this model memory, information is processed in a series of steps. Memory has three distinct stages such as sensory memory, short-term memory and long- term memory. The developmental cognitive neuroscience approach opened new window into normal and abnormal development. It suggested different types of treatment in abnormalities which is useful for handling children in an inclusive set up.

The socio-cultural perspective focuses on the role of culture and environment in defining the readiness of child for schooling. It rejects the notion of considering readiness as something 'within the child' and as external evidences of learning. It considers that readiness for schooling is shaped by the family members and people in communities. In this viewpoint, you can see that the responsibility of readiness for schooling shift from the child to the community. However, under this viewpoint, the readiness may differ from one community to the other.

Check Your Progress 5

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) Explain the educational implication of cognitive perspective in child development.

....

....

....

....

5.5 LET US SUM UP

From the above paragraphs, you might have learned about the various perspectives in child development. Each of the perspectives portrays different ways of explaining human development. Biological perspective studies the physical basis of human behaviour. Life-span perspective examines the pattern of growth and change in behaviour that occur the entire life-span. Regarding cognitive perspectives, a person's thought process is taken into consideration. In bioecological and sociocultural perspectives, you have seen how ideas about development have originated according to environment and culture. After understanding the essence of each theory, you may conclude that no single theory provides a complete explanation of all aspects of development. Our understanding of child development has changed and will continue to change, as we go through one perspective to the other.

5.6 UNIT-END EXERCISES

1. Using an example from a 'child growing up in orphanage', use Bronfenbrenner's bioecological model to describe relevant features which have influenced her/his development.

2. Which of the theories do you consider more appropriate to explain your own development? Why?

3. How do any two of the perspectives discussed in this unit explain the development of children?

GLOSSARY

Multiply determined: Something that is caused by more than one factor or event.

Schema: A cognitive framework that places a concept into categories and associations.

Reinforcement: A response to a behaviour that causes that behaviour to happen more.

Punishment: Administering a negative consequence or taking away a positive reinforcement to reduce the likelihood of an undesirable behaviour occurring.

Scaffold: Refers to an adult who helps the child to construct knowledge by providing guidance and support.

Metacognition: Awareness or analysis of one's own learning or thinking processes (Merriam- Webster, 2012).

5.7   ANSWERS TO CHECK YOUR PROGRESS

1.   Refer section 5.4.1.1 and 5.4.1.2

2.   i)   a.   Mesosystem

          b.   Chronosystem

          c.   Exosystem

          d.   Microsystem

          e.   Macrosystem

     ii)   Microsystem, mesosystem, macrosystem, exosystem and chronosystem

3.   Refer section 5.4.4.2 and 5.4.4.3

4.   Refer section 5.4.5

5.   Refer section 5.4.5.1

5.8   REFERENCES AND SUGGESTED READINGS

Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Erlbaum.

Allen, J. & Land, D. (1999). Attachment in adolescence. In J. Cassidy & P. Shaver (Eds.), *Handbook of attachment*. New York: Guilford.

Bowlby, J. (1969). *Attachment and loss: Attachment (Vol. 1)*. New York: Basic.

Harris, J. R. (1998). *The nurture assumption: Why children turn out the way they do*. New York: Free Press.

Kail, Robert V & Cavanaugh, John C. (2013). *Human development- A life-span view* (6[th]ed.).United States: Wadsworth, Cengage Learning.

Levine, Laura E. &Munsch, Joyce. (2011). *Child development-an active learning approach*. California, Thousand Oaks: Sage Publications, Inc.

Markeiwicz, D., Doyle, A. B., & Brendgen, M. (2001). The quality of adolescents' friendships: Associations with mothers' interpersonal relationships, attachments to parents and friends, and prosocial behaviours. *Journal of Adolescence, 24,* 429-445.

Meisels, S.J. (1999). *Assessing readiness in R.R.* Pianta& M.M. Cox (eds.) *The transition to kindergarten*. Baltimore, MD: Paul Brookes, 39-66. Retrieved from http://www.gulfbend.org/poc/view_doc.php?type=doc&id=10105.

Riley,M.W.(1979).Introduction. In M.W. Riley (Ed.), A*ging from birth to death: Interdisciplinary perspectives*; Boulder, CO: Westview Press.

Sigelman, Carol K. & Rider, Elizabeth A. (2003). *Human development*. New Delhi: Cengage Learning India Private Limited.

St. Rosemary Educational Institution. Growth and development theory: ARNOLD GESELL (1880 – 1961). http://schoolworkhelper.net/. St. Rosemary Educational Institution, Last Update: 2015. Web. Retrieved from http://schoolworkhelper.net/ growth-and-development-theory-arnold-gesell-1880-%e2%80%93-1961 on 05/12/2015.

Santrock, John W. (2007). *Adolescence* (11th ed.). New Delhi: Tata McGraw-Hill Publishing Company Limited.

Verghese, J., Lipton, R.B., Katz, M.J., Hall, C.B.,Derby, C. A.,Kuslansky,G., Ambrose, A.F., Sliwinski,M., &Buschke, H.(2003). Leisure activities and the risk of dementia in the elderly. New England Journal of Medicine, 348, 2508-2516.

UNIT 6   DIMENSIONS OF CHILD DEVELOPMENT

Structure

6.1   INTRODUCTION

In Unit 5, you have studied about human growth and development and the stages of child development. The main stages of child development include infancy, childhood, and adolescence. Each stage reflects some common dimensions of child development. We can classify these dimensions into physical, emotional, cognitive, social and moral development of a child. Each dimension has its own significance with respect to different stages. For example, if by the age of one, the child babbles two or three words then by the age of two s/he joins two to three words in sentences, and gradually, by the age of six s/he starts speaking fluently. So, you identify that the dimensions or aspects of child development can be characterized by a combination of various milestones of child development. In this unit, we will discuss these milestones in the context of childhood and adolescence stages. We will also try to understand the holistic approach of development and the role of a teacher as a facilitator, in this Unit.

6.2   OBJECTIVES

After going through this Unit, you should be able to:

●   explain the concept of dimensions of child development.

●   discuss the physical, emotional, cognitive, social and moral development of a child.

- illustrate the various dimensions of child development with real life examples.

- understand the holistic approach of development.

- analyze the role of teacher as a facilitator in the development of a child.

6.3 CONCEPT OF THE DIMENSIONS OF CHILD DEVELOPMENT

Looking back at our lives, we have memories that remind us about the changes we have faced over time and it is a fact that humans grow and change throughout their entire lifespan. For example, Riya is just now learning how to talk and walk, while her teen age sister Shivani is learning how to handle stress better. This is all about development and this development is **multidimensional** which means that change happens across many different aspects of a child's life. Physical, cognitive, emotional, moral or psychosocial changes- all take place at the same time. Therefore, these aspects are actually the various dimensions of development. Therefore, these dimensions of development are those aspects of human life, which change throughout the life span. To understand this concept more, let us begin with physical development.

6.3.1 Physical Development

Prior to the concept of physical development, let us imagine a process. Consider a newborn baby. Right now s/he has no control over her/his movements, but within 18 months s/he will be walking, in another year running, and soon after, jumping and throwing and kicking things. In the first two years, a child develops physically at a faster rate than at any other time in her/his life. This physical development forms a significant basis for the developments in cognition and emotion.

Physical growth and development refers to a process which brings bodily and physiological changes- internal, as well as external- in a child from conception till death (Fig 6.1). Here, in this topic, while we are not going to discuss infant's physical development in detail, it forms a foundation for a child's development- not only physical, but also social, emotional and cognitive- in later years. Let us first discuss the characteristics of physical development during childhood and adolescence.

Fig. 6.1: Stages of physical growth and development

6.3.1.1 Characteristics of Physical Development

During childhood there are changes in a child's height, weight and body proportion. The pace of this growth is more in later childhood (7-12 years) than in early childhood stage (3-6 years). Legs lengthen rapidly and there is increase in height. A gradual improvement in speed, steadiness of movement and accuracy also form significant features of physical development in early childhood while at a later stage they get weary after physical activity, but also show a great interest in competitive games which require skill. This stage of childhood is now going to be transformed into the

blossoming period of child development, which is known as adolescence. Let us now try to explore the characteristics of adolescence stage.

As we all know, at the adolescent stage (13-18 years), noticeable changes take place in many domains like height and weight, bodily proportions, change in voice, increase in motor performance and sexual changes. Both boys and girls have a growth spurt caused by the production of hormones. A boy's growth spurt is usually later than the girls. The most important physical development in adolescence is puberty, when they become sexually mature. Girls can experience puberty from around the age of 11 years, for boys this is slightly later.

Girls at this stage show a continuous growth in height, but at a slower pace than earlier. Prominent changes can be seen in bodily proportions with the broadening of pelvic bone, circular wrist, while the arms and legs grow in length and become finer. The voice becomes sweet and shrill. In terms of secondary sex characteristics, the sex organs in girls acquire maturity. The growth in breast, hair growth at pubic and armpits, and change in gait are some significant features of adolescence in girls. Apart from this, the girls start going through menstruation cycle (average age varies from 12 to 16 years). Researches show that the girls seem to mature earlier than boys do in physical aspects.

If we look into the distinguished characteristics of adolescent stage among boys, these include rapid growth in height and weight (continues until age 18 or 19), development of muscles and increase in strength. The changes in bodily proportions can be seen in the form of rounded shoulders, broadened chest and developed muscles. The maturity of the larynx can be noticed with broken and deepened voice. Besides, genital organs in boys grow in size. Other significant features of adolescent boys include hair growth in pubic, armpits and facial areas.

Let's Think Over

You have been appointed as the class teacher of Class VIII, when the children are in their thirteens. You have to orient the class in terms of the physiological changes which they are going to face in their coming years. What points would you like to discuss in common? Would you like to orient girls and boys separately? If yes, on what points and if no, why so?

....

....

....

The physiological changes occurring commonly in both boys and girls include full growth of all internal systems, pulse rate, and complete brain development. The skin becomes oily and acne and sweating may be problematic. Rapid growth may cause clumsiness and lack of coordination. They always feel hungry and their appetites seem to be great. Sexual desires and fantasies also increase in both boys and girls. However, these changes occurring in the body of a child are influenced by some factors which may be hereditary or environmental.

Check Your Progress 1

Notes: (a) Write your answers in the space given below.

      (b) Compare your answers with the one given at the end of the unit.

(i) Mention the noticeable changes in physical development of a child in early and later childhood.

....

....

....

....

(ii) Differentiate between the sexual maturity in girls and boys, with suitable
examples.

....

....

....

....

6.3.2   Emotional Development

Emotion has been defined differently as 'a stage of agitation', 'disturbance of
equilibrium', 'intense random and disorganized response to a stimulus'. In modern
life, emotions demand greater understanding because of their pervasive effects on
behaviour, personality and health.

6.3.2.1   Characteristics of Emotional Development

At the childhood stage, children experience feelings of love, hatred and fear which
last for long. There is the formation of sentiments and complexes. They develop a
sense of autonomy, combat, doubt and shame. In other words, they accept themselves
if they succeed in their own eyes and develop a sense of inferiority, if they fail.

By the time the children enter the stage of adolescence, there are some noticeable
changes in their emotional behaviour. The adolescents often struggle with a sense of
identity and question about themselves. The common observable behavioural patterns
at this stage are moodiness, anger, depression, anxiety and state of dilemma. Their
trust therefore shifts to friends and the opinions of others seem to be important.
Moreover, 'crushes' on movie stars, models, pop artists, etc. can easily be found
and therefore, they are found to be sexually attracted to people.

Let us try to understand this emotional change through case studies.

*Case 1: Nalini worked hard on improving her dancing skills. If she missed a
single move, she did not believe she was ready for a stage performance. She
was not satisfied with anything less than cent percent.*

*Case 2: Sachin is 12 years old. Everyday, for one or the other reason or
argument, he feels that his Science teacher doesn't treat him fairly. He is so
stressed out over this problem with his teacher; he gets angry with everyone in
his life including his mother and younger sister.*

Activity 1

Based on the above-mentioned cases, write down your reflections in the space
provided.

a.   What was Nalini's state of mind?

....

....

....

....

b. What is wrong with Sachin?

....

....…......

....

....

If the emotional development of a child moves towards equilibrium, then it leads to another stage of development: Cognitive development, which we will discuss in the next section.

6.3.3 Cognitive Development

Does a child's cognition refer merely to the achievements in academics? Is there any role of cognition in developing other dimensions of a child's personality? Child's cognitive development forms the foundation of many other developments like language, social, moral and emotional development. But the question arises, what is this cognitive development? Cognitive development involves mental processes that are associated with taking in, organising and making sense of information processes that include perceiving, attending to, understanding and recalling information. The mental functions are part of what is referred to as *cognition*. Let us explore this dimension of cognitive development in terms of general characteristics and Piaget's theory of cognitive development.

6.3.3.1 Characteristics of Cognitive Development in Childhood and Adolescence
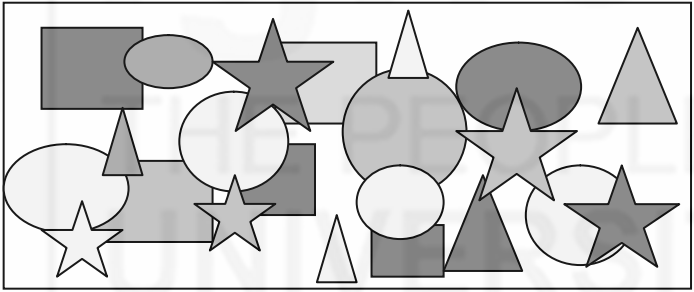
Fig. 6.2 A tray containing geometrical figures of different shapes, sizes and colours

Shreya, a 5 year old girl, can classify the things as given in Fig.6.2 on the basis of shapes, while her elder sister Kriti, who is 8 years old, can classify the same with respect to their shapes, size and colour, when asked. In early childhood, therefore, children start categorizing things, copying shapes, following instructions, and understanding concepts of days, time, money, and space. They enjoy reading books on their own. Later childhood witnesses the cognitive development in terms of increasing capability for social conscience and for abstract thought. They also start thinking about their future careers and seek information and knowledge from peers and media. On completing later childhood, the children enter the stage of adolescence.

When we think about adolescence, we often focus on the biological changes of puberty or socio-emotional changes.

Case 3: Harish, a 16-year-old boy got into an argument with his Physics teacher. He was saying that everything in this Universe was formed because of some scientific reason. There is a scientific theory behind every evolution. He was

not ready to agree upon any thing without evidence. What is Harish's stage of cognition? Is he forming his own opinion or arguing just for the sake of argument? To find similar answers, let us study Piaget's theory of cognitive development.

At adolescence stage, between the ages of 13 and 16 years, there seems to be a progression in skills like arguing, abstract thinking, deductive reasoning, and decision-making. They can now distinguish fact from opinion, learn to focus on future development, mixed with some fantasy and develop a conscience. When the children enter the stage of later adolescence (16-18 years), they develop an ability to think more abstractly, hypothetically, reflectively, and critically, and therefore, form their own opinions. They are more concerned with reasons and proofs. Although, most have not made the connection between learning and life's experiences, they desire to do something well. Therefore, everything seems to be a big deal for young teens. Jean Piaget (1896-1980), while working in Binet's test lab became interested in how children think. Piaget's training as a biologist influenced his theory of cognitive development.

6.3.3.2 Piaget's Theory of Cognitive Development

Before we begin with Piaget's theory of cognitive development, take a moment to solve these three problems:

1. Here are eight wooden beads. Six of these are black and two white.

    Are there more black beads or more wooden beads?

2. If all children are human beings,

    And if all human beings are living creatures,

    Then must all children be living creatures?

3. If all children are tennis balls,

    And if all tennis balls are chocolates,

    Then must all children be chocolates?

You undoubtedly found the first problem easy; there are, of course, more wooden beads than black beads. You were probably able to infer the second problem quite quickly that, yes, all children must be living creatures. The third problem is quite tricky because though it follows the same kind of reasoning as the second problem, its conclusion that yes, all children must be chocolates, contradicts the truth in reality. Jean Piaget, in his theory, introduced a number of ideas and concepts to describe and explain the changes in logical thinking that he observed in children and adolescents.

Piaget's Basic Tendencies in Thinking

Piaget identified that children actively construct their own cognitive worlds. To make sense of the world, they **organize** their experiences and **adapt** their thinking to include new information.

Organization is an ongoing process of arranging information and experience into mental systems or categories. Piaget termed these mental concepts as **schemas**. A **schema** is a mental concept that is useful in organizing and interpreting information.

As an individual's thinking processes become more organized and new schemes develop, behaviour also becomes better suited to the environment.

Piaget found that children adapt their schemas through two processes- **assimilation** and **accommodation**. *Assimilation* means fitting new information into existing schemas or what we already know. For example, if the child knows about the horse, then when the first time he/she sees a camel, he/she may call it a "horse". On the other hand, *accommodation* is altering existing schemas or creating new ones in response to new information. Children demonstrate accommodation when they add the scheme for recognizing camels to their other systems for identifying animals. During this process, children experience disequilibrium in their attempt to understand the world. Gradually, they reach in a balanced state of thought known as equilibrium. This shift in thought from one state into another is termed as **equilibration.**

Let us now study, the four stages of cognitive development, proposed by Piaget.

Four Stages of Cognitive Development

According to Piaget's theory, children progress through a sequence of four major developmental stages: (a) the sensorimotor stage of infancy- involving the senses and motor activity; (b) the preoperational stage of early childhood- the stage before a child masters logical mental operations; (c) the concrete operational stage of middle childhood- mental tasks are tied to concrete objects and situations; and (d) the formal operational stage of adolescence to adult- mental tasks involving abstract thinking and coordination of a number of variables. Now, let us study the major features of all the four stages through table 6.1.

Table 6.1 : Piaget's Stages of Cognitive Development

Stage	Approx. Age	Major features	Developmental milestones
Sensorimotor	Birth-2 years	*Object permanence*	Begins to understand that objects do not cease to exist when they are hidden. *Eg.: Showing the child a toy, hide it under a cloth. The child would take out the toy by removing the cloth.*
		Goal-directed actions	Actions that are produced consciously to achieve a desired end. *Eg.: Hitting a musical toy to elicit a sound*
Preoperational	2-7 years	*Semiotic function*	Begins to use gestures, signs, sounds and words to represent and convey meaning. *Eg.: Waving goodbye; pointing to something of interest.*
		One-way logic	Able to think operations through logically in one direction. *Eg.: Students treat addition and subtraction as two unrelated processes.*
		Lack of conservation	Believes that amount changes when a substance is reshaped or rearranged, even when nothing

Stage	Age	Characteristic	Description
			is added or taken away. *Eg.: Not understanding that there will be same amount of paper, even if it is torn into several pieces.*
		Egocentricism	Have difficulties seeing things from another person's point of view, they think their own perspective is the only one possible. *Eg.: If a little boy is afraid of dogs, he may assume that all children share this fear.*
Concrete operational	7-11 years	*Reversibility*	Understands that certain processes can be reversed. *Eg.: Students start recognizing that subtraction is the reverse of addition.*
		Conservation	Recognizes that amount stays the same if nothing has been added or taken away, even if a substance is reshaped or rearranged. *Eg. Students can prove that there will be same amount of paper, even if it is torn into several pieces, by taping the pieces back together.*
		Classification	Recognizes that objects may belong to several categories simultaneously. *Eg. A student may acknowledge that a mother can be a doctor, a sister and a spouse.*
		Deductive reasoning	Able to draw a logical conclusion from two or more pieces of information. *Eg:If all children are human beings and if all human beings are living things, then all children must be living things.*
Formal operational	11-adult	*Abstract and hypothetical reasoning*	Ability to reason about abstract, hypothetical, and contrary-to-fact ideas. *Eg. A student understands negative numbers and is able to use them effectively in mathematical procedures.*
		Adolescent egocentrism	Understand that others may have different perceptions and beliefs; they become focused on their own ideas, beliefs and attitudes. *Eg. "The whole class thought my answer was dumb".*

Source: Adapted from Woolfolk, A. (2006). *Educational Psychology.* New Delhi: Pearson Education, Dorling Kindersley (India) Pvt. Ltd, p. 66.

Based on the above description, let us perform the following activities:

Activity 2

i) In the figure, part- 1, the boy was asked if both the glasses have same amount of juice or different. The boy replied 'same'. In part-2, the juice of one glass was poured into another glass. In part-3, on asking same question again, the boy replied that taller glass has more amount of juice. Which stage of cognitive development is the boy at and why?

....

....

....

....

ii) Which of these items will float and which will sink? Try this task with some children aged 4-6, 8-10 and 12 years or older. Note down the results and report your findings. Do you get the same results for the younger and older children? If not, can you explain why?

....

....

....

....

However, recent studies found that children's cognitive performance is not homogeneous; it may vary considerably as a function of changes in tasks. A reflection of these changes can also be seen in the moral behaviour of the children. Let us discuss this topic.

6.3.4   Moral Development

Every day, we come across many situations which demand our reasoning of right or wrong. For example, you are already late for school and on your way you find a red signal at a square. If you do not reach on time half of your salary gets deducted. What will you do? There are such situations in our daily life which make us realize how far we can uphold our attitude of being self. In these situations, we need to extend and challenge our thinking about what is 'moral'. Actually, being moral or *morality* refers to the fundamental questions of right and wrong, justice, fairness and basic human rights.

These questions or components of moral development have emerged out of social contexts. However, Piaget proposed that there are cognitive developmental approaches which emphasize moral reasoning, along with the impact of social context. We will discuss Piaget and his moral reasoning later in this text. First, let us find out certain characteristics of moral development at the stages of childhood and adolescence.

6.3.4.1 Characteristics of Moral Development

Moral development is concerned with how people grow in understanding moral issues and in making moral decisions. In early childhood (4-6 years), children are more often concerned about their own personal well-being when they make moral decisions. They think in terms of distributive justice or fair sharing of any stuff. But by middle childhood (roughly 6 to 9 years of age), children begin to develop more empathetic and abstract methods of moral reasoning.

Moreover, adolescents develop an understanding of the complexity of moral issues like question values, cultural expressions, and religious teachings. At this stage, individuals also show impatience with the pace of change, and underestimate how difficult it is to make social changes. They, therefore, need to be influenced by adult role models who will listen and be trustworthy. Besides, they judge others quickly, but accept one's own faults slowly. Yet, they show compassion and have special concern for animals and environmental issues. Now you know, adolescents' cognitive development, in part, lays the groundwork for moral reasoning, honesty, and pro-social behaviours such as helping, volunteerism, or caring for others. Let us discuss the role of cognitive development in developing moral reasoning among young children through Piaget's theory of moral reasoning.

6.3.4.2 Piaget and Moral Reasoning

Before we try to understand Piaget's concept of moral reasoning, let us consider two illustrations.

Case 4:Rajat is a very young boy. His younger brother is very hungry, but Rajat has no money left after buying medicine for his mother. His brother starts crying because of hunger. Rajat goes to a snack-stall and requests the shopkeeper to give kachori for his hungry brother. But he refuses. Finally, Rajat becomes desperate and steals two kachoris. He, then, runs out and gives that to his brother.

Case 5: Shivani goes to a shop. She sees a pretty piece of hair band hanging there in a shelf. She imagines that it would look very nice on her dress. So, while the salesgirl turn back, she steals the hair band and runs away at once.

Are these children equally guilty? We will try to find the answer after studying Piaget's theory of moral reasoning. Here, Piaget called such situations as *moral dilemmas*, the problems that require individual judgments and moral reasoning based on our cognition. Therefore, Jean Piaget developed his theory of moral reasoning. He proposed two types of moral reasoning, which are closely related with cognitive development- 'heteronomous morality' and 'autonomous morality'.

Heteronomous moralities are those moral decisions which are based on the rules of people with supreme authority such as parents. Children who reason about moral issues using heteronomous morality hardly care about the motives or intentions behind actions. However, this type of moral reasoning may be found in some adults too.

Besides, another type of moral reasoning is **Autonomous morality**, which is the ability to reason that appreciates the perspectives of others and the motives behind their words and actions. According to Piaget, autonomous morality develops parallel to the development of the stage of formal operations and abstract thinking.

Now, let us answer the question asked above on the moral dilemma regarding the subject of stealing, mentioned in above two short stories. The people of typical heteronomous morality, would respond that Rajat is guiltier than Shivani because

two pieces of kachori costs more than a piece of hair band. While, people supporting autonomous morality would respond that Shivani is guiltier because she is being deceitful and Rajat has good intentions of sustaining his younger brother.

Check Your Progress 2

Notes: (a) Write your answers in the space given below.

(b) Compare your answers with the one given at the end of the unit.

(i) What differences do you observe in the two responses given in cases 4 and 5?

....

....

....

....

(ii) If you were to respond to the question who is guiltier- Rajat or Shivani- what would be your choice and why?

....

....

....

....

Moreover, Piaget's work on moral reasoning also inspired Lawrence Kohlberg, who too believed that moral reasoning was closely linked to cognitive development. Let us explore Kohlberg's theory of moral development to find out more.

6.3.4.3 Kohlberg's Theory of Moral Development

Before dealing with Kohlberg's theory of moral development, let's read the case below:

Case 6: Atul was not prepared for his Physics Exam, so he wrote some important formulae on a slip of paper which he put in his pocket before the test. Just before the test began, the teacher informed the class that any student caught cheating would automatically fail the test. Even though Atul needed to use the information he wrote on the slip, he didn't use it because the teacher stood too close to his desk during the entire exam.

What was the reason that stopped Atul from cheating in the examination? There are many such moral dilemmas systematized by Kohlberg under different stages in his theory of moral development. Lawrence Kohlberg (1927-1987) got inspired by Piaget's work and particularly his method of observing and interviewing children. Therefore, he also used a similar methodology of interviewing children and adolescents to collect his data on moral issues. Kohlberg's theory started from self-centeredness and moved towards others' centeredness.

Self-centeredness   **Others-centeredness**
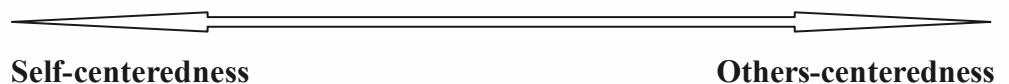
Lawrence Kohlberg proposed a detailed sequence of *six stages* of moral reasoning, classified into *three levels*. His three levels of moral development included:

(I)Pre-conventional Level- At this level, judgment is based solely on a person's own needs and perceptions. Here, right and wrong is based primarily on external circumstances (punishments and rewards). The first two stages are included in this level:

Stage 1: Punishment-Obedience Orientation

I might be caught and punished

if I cheated!

At this stage (lowest) you try to avoid breaking rules for fear of punishment because a good or bad action is determined by its physical consequences. Here, the conscience that works is 'self-protection'.

Stage 2: Personal Reward Orientation

Maybe he really had to pass because he might get a reward on scoring well. Nevertheless, maybe he should not cheat because the teacher would then fail him.

At this stage personal needs determine right and wrong and so, the conscience seems to be 'cunning'. Your behaviour is determined primarily by what will earn you a reward.

(II) Conventional Level- At this level, the judgment is based on other's approval, family expectations, traditional values, the laws of society, and loyalty to country. This level includes stages 3 and 4.

Stage 3: Good Boy-Nice Girl Orientation

He just wanted to pass the test and for this, he was taking help of that slip of paper. It doesn't mean he had no knowledge of Physics. It's all about the pressure of the examination! He just wanted to fulfil his parent's expectations.

This stage is the stage of social approval. Your behaviour is determined by what pleases and is approved by others. Here, mutual relations of trust and respect should be maintained provided they conform to your expected social role. The conscience at this stage is loyalty.

Stage 4: Law and Order Orientation

It is wrong to cheat in exams because it is against rules of examination in school.

You are expected to respect the authority and maintain the social order. It is right to contribute to the society and fulfil social duties. Here, the conscience is good citizenship.

(III) Post-conventional Level- The last two stages (5 and 6) are at this post-conventional level. At this level, judgments are based on abstract, more personal principles that are not necessarily defined by society's laws.

Stage 5: Social Contract Orientation

It is not right to cheat in examination because it is against moral values.

This stage is the stage of social utility and individual rights. Your loyalty is towards truth. At this stage, you are not only aware of the social contract between individuals, but also of the different moral perspectives of others. The conscience of this stage is reason.

Stage 6: Universal Ethical Principle Orientation

This is the highest stage of morality. At this stage you realize to follow self chosen ethical principles. Your choices are grounded in genuine moral interest in the well-being of others, regardless of who they are. Therefore, the conscience at this stage is personal integrity.

In order to understand Kohlberg's theory of moral dilemma in a better way, let us go through the story of Heinz, which he entitled as '*Heinz Dilemma*'.

Heinz Dilemma

A woman in Europe was diagnosed with a kind of cancer and was near her death. Only one medicine could save her as per doctors' opinion which was a kind of radium, discovered by one of the pharmacists in that town. But that pharmacist was charging nearly ten times the cost of the radium, i.e. $2000 and that too for a small dose. Heinz, the sick woman's husband tried hard to collect money but could arrange for only half the amount. He requested the pharmacist to lend him the medicine because his wife really needed it but the latter didn't help. Heinz got so distressed that he broke into the pharmacist's shop to steal the medicine for his wife.

Let us study Heinz dilemma at all levels of morality by Kohlberg.

Stage 1: Heinz should not steal the medicine because he might be caught and punished or Heinz won't go to prison because he was not stealing something big and more importantly, he asked for it first and was ready to pay.

Stage 2: Heinz might steal the medicine to give happiness to his family at home by saving his wife. But he might get sentenced for a long term in prison which he could not stand.

Stage 3: Heinz was not doing wrong. He just wanted to save his beloved wife. It was the pharmacist who overcharged. He won't get a hard punishment because the judge would look at all sides of the situation.

Stage 4: Heinz should not have stolen because it was against the law or if he had to steal then he must be ready to take the punishment; otherwise, there would be a chaos if everybody sets up everybody's own beliefs.

Stage 5: Life is more important than property and Heinz should save his wife even if he had to steal. Let the moral and legal standpoints coincide or Heinz should not have stolen because even though his wife was sick, it couldn't make his action right.

Stage 6: Heinz should steal the medicine because human life has more value than the property rights of some person or Heinz should not have stolen because any other person might have needed the medicine more badly.

Source: Adapted from Kohlberg (1963, p. 19).

Let us practice more by solving a few cases:

Activity 3

i) As Purab's mother was leaving for work in the morning, she asked Purab to clean out his room some time during the day. Purab responded, saying he

---

already had plans to play badminton with his friends that day. Around noon, Purab and his two friends made some plans that required Purab to borrow his mother's car that evening. Purab decided to skip playing badminton and clean his room first.

At what stage do you think Purab's decision was? Why?

....

....

....

ii) Try out the Heinz dilemma on any of your students who is unfamiliar with Kohlberg's research. Interpret her/his response according to Kohlberg's stages.

....

....

....

So now, you know why Kohlberg and Piaget are considered cognitive developmental theorists. However, there is another perspective of moral development which was proposed by Carol Gilligan, a former student and co-researcher of Kohlberg at Harvard University. What was Gilligan's research on moral development? How was her theory different from the theory of Kohlberg? Let us discuss.

6.3.4.4 Gilligan's Stages of Ethics of Care

Carol Gilligan (1982) has proposed a different sequence of moral development in the form of "ethics of care". She debated that Kohlberg's theory of stages are biased in favour of males, in a male dominant society and do not represent the way moral reasoning develops in women because he conducted a longitudinal study of men only. According to Gilligan, women are likely to think of right and wrong in terms of care and relationships, whereas men tend to think in terms of rules and justice. She describes three stages of moral reasoning:

Stage 1 Pre-conventional Morality: The goal of this stage is individual survival. This is a transitional stage from selfishness to responsibility to others. You are motivated to act by deciding what is best for yourself.

Stage 2 Conventional Morality: This stage says that self-sacrifice is goodness. At this stage, transition is from goodness to the truth of the situation. You are motivated to perform actions which are based on what will care for and benefit others.

Stage 3 Post-conventional Morality: This stage favours the principle of nonviolence. It proposes not to hurt others or the self. You learn that it is just as wrong to ignore your own interests as it is to ignore the interests of others. You come to understand that a relation involves two people, and if either one is affronted, it troubles the relationship.

Check Your Progress 3

Notes: (a) Write your answers in the space given below.

(b) Compare your answers with the one given at the end of the unit.

(i) If your motivation for keeping the law is primarily your fear of punishment, you are said to be operating at the level of:

(a) postconventional morality   (b) preconventional morality

(c) conventional morality   (d) nonconventional morality

(ii) Gilligan argues that, compared with men, women tend to express the following primary motivation for behaving morally:

(a) a concern for justice   (b) compassion and care for others

(c) a concern about doing what is right   (d) a concern about what their family will think

(iii) Why Gilligan's stages of "ethics of care" are a feminist voice?

....

....

....

....

Moral reasoning develops us as individuals who reside in a social environment with one's personal moralities. This again, leads us to another dimension of child development, which is 'psychosocial development'.

6.3.5   Psychosocial Development

Psychosocial development reflects an interrelationship between psychological developments, emotional needs and the way individuals interact with their environment. Who am I? What my close friends think about me? How am I different from others? Am I a kid, or an adult? You know that these questions are not usually concerned in childhood but during adolescence stage. Adolescents clamor for answers to such questions of identity. Erik Erikson was the first to realize how central such questions are to understanding one's identity. We will discuss about Erikson's theory in the next section.

6.3.5.1   Theory of Psychosocial Development- Erik Erikson

Erik Erikson (1963, 1972) described a series of eight 'psychosocial' stages in which our selfhood, independence, identity and self-worth may be developed or crushed, depending on how we resolve issues and interact with others along the way. You can find Erikson's stages of psychosocial development in table 6.2, and detailed description is made on psychosocial crisis at childhood & adolescence.

Table 6.2 Erikson's Stages of Psychosocial Development

Stages	Approx. Age	Description
1. Basic trust versus Basic mistrust	Birth to 12-18 months	The infant must form a first loving, trusting relationship with the caregiver or develop a sense of mistrust if ignored or abused
2. Autonomy versus shame/doubt	18 months to 3 years	The child's energies are directed toward the development of physical skills, including walking, grasping, controlling the sphincter. The child learns control but may develop shame and doubt if not handled well.

3. Initiative versus guilt	3 to 6 years	The child continues to become more assertive and to take more initiative but may be too forceful, which can lead to guilt feelings.
4. Industry versus inferiority	6 to 12 years	The child must deal with demands to learn new skills or risk a sense of inferiority, failure, and incompetence.
5. Identity versus role confusion	Adolescence	The teenager must achieve identity or confusion in occupation, gender roles, politics, and religion.
6. Intimacy versus isolation	Young adulthood	The young adult must develop intimate relationships or suffer feelings of isolation.
7. Generativity versus stagnation	Middle adulthood	Each adult must find some way to satisfy and support the next generation.
8. Ego integrity versus despair	Late adulthood	The culmination is a sense of acceptance of oneself and a sense of fulfillment.

Source: Woolfolk, A. (2006). Educational Psychology. New Delhi. Pearson Education, Dorling Kindersley (India) Pvt. Ltd., p. 100.

When children reach elementary school (6-12 years of age), they soon learn that they can get recognition of adults by producing things- for example, through their written assignments, art projects, dramatic productions, and so on. When children are allowed and encouraged to make and do things and when they are praised for their accomplishments, they begin to demonstrate 'industry'. Therefore, 'industry' is a pattern of working hard, persisting at lengthy tasks and putting work before pleasure. But, when children are punished for their efforts or when they find that they cannot meet their teachers' and parents' expectations for their performance, they may develop feelings of 'inferiority' about their own abilities.

Case 7: Neeraj always tried to express his feelings, ideas and thoughts through poetry. Every time, he wrote a poem, he was motivated and reinforced by his parents. Gradually, his writing skills improved and one day a collection of his poetry got published. This is a demonstration of 'industry'.

Case 8: Ravi is a 10-year-old boy. He is very good at drawing arts but has some reading and writing difficulties. Neither his parents nor teachers understand his difficulties. He is always punished and called a careless boy. He, therefore, always feels 'inferior' among a group and gradually, he started leaving his art of drawing.

The case 7 is an example of 'industry' while case 8 demonstrates an example of 'inferiority'.

However, as children make the transition from childhood to adulthood, adolescents ponder the roles they will play in the adult world. Initially, they are likely to experience some 'role-confusion'- mixed ideas and feelings about the specific ways in which they will fit into society- and may experiment with a variety of behaviours and activities, like engaging in co-curricular activities at school, affiliating with particular groups, etc. Eventually, most adolescents achieve a sense of 'identity' regarding who they

are and where their lives are headed. For example, a fifteen year old Riya described herself as a 'fashion model'- someone for whom glamour is a way of life as well as a source of being in the lime-light. She always insisted on wearing branded clothes and carrying exclusive accessories, reflecting herself as a style-icon among her peers.

Check Your Progress 4

Notes: (a)   Write your answers in the space given below.

(b)   Compare your answers with the one given at the end of the unit.

(i)   Why is Erikson's theory viewed as psychosocial perspective?

....

....

....

....

(ii)   What are Erikson's stages of psychosocial development for children at elementary school level and adolescents?

....

....

....

....

So far, we have studied almost every dimension of the child's development. However, what we studied and discussed was in a disintegrated form. Let us now try to understand the holistic approach of development which is responsible for the development of the personality of an individual.

6.4   HOLISTIC UNDERSTANDING OF DEVELOPMENT

In the above sections, you have studied various dimensions of child development. But, do you think these dimensions develop separately in a child? What if these do not interact with one another? If this would happen, the child will not be able to demonstrate a harmonious relationship with her/his environment. The child will not get developed as a whole. Let us understand this with the help of a case.

Case 9: Leena is a 13-year-old girl who was an all rounder till her last year of school. But, a few months ago, a drastic change was noticed in her behaviour. Under the influence of her friends, she became very much concerned about her appearance. So, she included gym and excessive exercise in her routine. She was very particular about her diet and even started skipping meals. Soon, she lost weight and impressed her friends. However, this greatly affected her health. Her weight was continuously decreasing and she stopped feeling hungry. Besides, she started losing concentration in class and her school performance deteriorated. Social life became less important to her and she started avoiding her parents and friends too. Her parents showed concern about her health deterioration and planned to visit their family doctor. Leena responded with anger and tears and refused to go until her parents insisted. The family doctor found her critically underweight and advised to consult a paediatrician and a

child psychiatrist, who would help in solving the difficulty of separation (from the family) and individuation (becoming her own) which Leena and her parents are facing with early adolescent stage.

After reading the above case, it might be clear to you that there exists an inter relationship among various dimensions of child development.
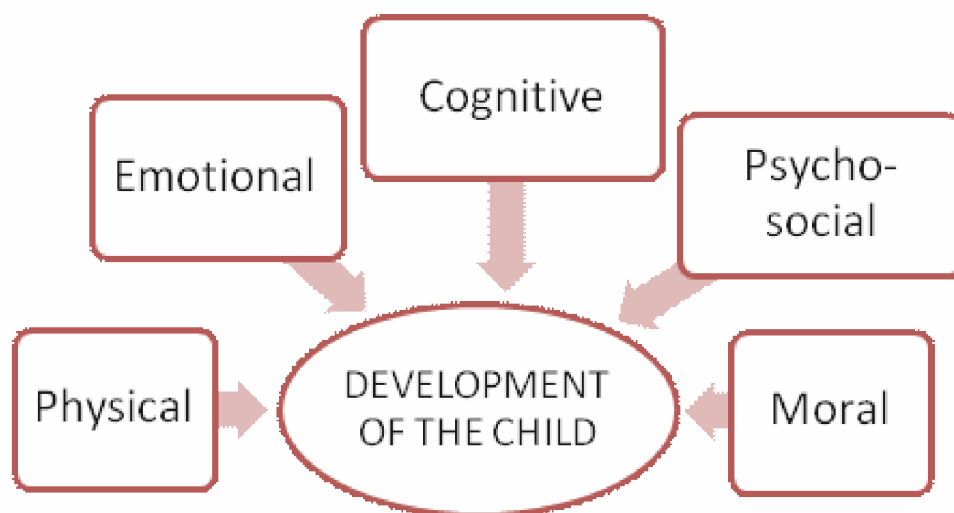
Fig. 6.9: Development of a child as a whole

We can understand this interrelationship with the help of following examples:

(i)   A physically unhealthy person is unable to perform one's duties to oneself, family and community.

(ii) A child under emotional strain is likely to be physically unhealthy, socially inefficient and cognitively deteriorated.

(iii) A child with less social interaction, may feel lonely which further may lead to emotional disturbance along with cognitive and language difficulties.

(iv) The undue emphasis on cognitive development may ignore emotional and physical side of an individual's personality.

We may conclude that an individual has to be considered as one 'whole'. Therefore, while taking measures for all round development of a child, it must be remembered that all the dimensions of child development are inter-related and inter-dependent. To know, what a teacher's role can be, in facilitating development, let us study the next section of this unit.

6.5   ROLE OF THE TEACHER IN FACILITATING DEVELOPMENT OF CHILDREN

Unbelievably, you as a teacher can really transform the life of a child. Let us now explore a teacher's role in facilitating different dimensions of development of children.

While teaching, whenever you come to know about specific physical needs of children, you should consequently plan your programmes. For example- making a child with low vision sit at front desk; using larger fonts on chalkboard; high quality audio aids, etc. Knowledge of the pattern of physical growth and development helps the teacher to arrange school programmes like co-curricular activities. Besides, you should emphasize on sitting in right postures, regular medical check-ups, regular exercises, play activities, and nutritious diet for the children.

The teacher's facilitation in cognitive development of a child needs great attention. You should ensure that students maintain cognitive balance between new experiences

and what is already known; challenge their illogical explanations and ask them to explain their reasoning; express confusion or explain that others think differently when students show egocentrism; relate abstract and hypothetical ideas to concrete objects and observable events and many more. This balanced cognition helps them develop emotionally.

Stable emotions are important for a harmonious personality of an individual. Your role as a teacher may include equal treatment to all children in your classroom; planning dynamic activities; balanced emotional behaviour of yourself; creating a trustworthy environment; and enabling students recognize emotions of others and express their own feelings.

Furthermore, the teacher's role in developing psychosocial behaviours here is to encourage responsibility among students by assigning group tasks to value their hard work and task accomplishments while discouraging excessive competition to avoid feelings of inferiority; promote social interaction among diverse groups like assigning partners to *students with special needs* to develop an understanding. This may help them in developing morally too.

You may facilitate moral development among children by modelling appropriate moral behaviour. You should talk about reasons why some behaviours are inappropriate, e.g. throwing chewing gum here and there may spoil somebody's hair or clothes. Besides, you may incorporate moral issues and dilemmas during classroom discussion, e.g. discussion on wars between two countries. A positive reinforcement to students may also help in encouraging morally desirable behaviours among them.

Check Your Progress 5

Notes: (a) Write your answers in the space given below.

(b) Compare your answers with the one given at the end of the unit.

(i) Why is it necessary to develop a child 'as a whole'?

....

....

....

....

(ii) What efforts can you plan to facilitate development in a child?

....

....

....

....

This is how a teacher may help in the holistic development of a child. Now let us sum up this unit.

6.6 LET US SUM UP

Human development has been divided into four stages of infancy, childhood (early and later), adolescence and adulthood. Each stage can be understood through physical, emotional, cognitive, moral and psychosocial development with some

specific characteristics. Childhood (early childhood- 3-6 years and later childhood-7-12 years) extends to advent of puberty. Sense organs and muscles grow to maturity and there is a significant change in the child's size, strength and motor skills that turn towards sexual maturity till the end of adolescence. At childhood stage, children experience intense feelings of love, hatred, fear, jealousy along with a sense of autonomy, combat, shame, inferiority, and aggression; while at the adolescence stage emotions like turmoil, stress, and self-love are at their peak. Cognitively, children pass through sensorimotor, pre-operational, concrete and formal operational stage covering stages from infancy to adolescence. They move from egocentrism to decentration and lastly, abstract thinking. Their adaptation to the environment develops through the two complementary processes of assimilation and accommodation. Semiotic representation, conservation, reversibility, seriation, classification and hypothetical deductive reasoning are significant developmental cognitions. Morally, the children move from a stage of heteronomous morality to autonomous morality, according to Piaget, while Kohlberg and Gilligan proposed pre conventional, conventional and post-conventional stages of morality with differences in the conceptualization by the two. Furthermore, psychosocial development of individuals includes eight stages proposed by Erikson, who considered a stage of industry vs. inferiority for childhood and identity vs. role confusion for adolescent children.

All the above developmental dimensions collectively develop a child as a whole by reflecting an unavoidable interrelationship and interaction among one another. To facilitate these developments, a teacher can play a significant role by planning teaching methods, strategies, activities and role modelling, accordingly.

6.7   UNIT-END EXCERCISES

1.   Explain the different stages of Piaget's theory of cognitive development.

2.   Explain with examples, the characteristics of emotional development at the adolescence stage.

3.   Compare and contrast the ideas of Kohlberg and Gilligan on moral development.

4.   Examine the role of a teacher in facilitating development in children.

6.8   ANSWERS TO CHECK YOUR PROGRESS

1.   (i)   In terms of change in height, weight, body proportion, health, movements, and other physical activities.

    (ii)   In girls, growth in breast, hair growth at pubic and armpits, broadening of pelvic bone, menstruation cycle, change in gait and voice. In boys, rounded shoulders, broad chest, developed muscles; hair growth in pubic, armpits and facial areas; growth in genital organs; maturity of larynx.

2.   (i)   With reference to heteronomous and autonomous morality.

    (ii)   Write your own answer.

3.   (i) b. (ii) b

    (iii) Gilligan's theory was based on the argument that Kohlberg's theory is male dominant, so she gave a good space to women's concept of right and wrong in her theory.

4.   (i) Because it involves personal, psychological and social dimensions of a child's development.

    (ii)   Refer table 6.2

5. (i) Complete personality development, harmonious relationship with environment

    (ii) Refer section 6.9

6.9   REFERENCES AND SUGGESTED READINGS

Baron, R. (2005). *Psychology.* New Delhi: Pearson Education Inc.

Bornstein, M. A. (1999). *Developmental Psychology: An Advanced Textbook.* New Jersey: Lawrece Erlbaum Associates, Publishers.

Chauhan, S. S. (2009). *Advanced Educational Psychology.* Noida: Vikas Publishing House Pvt Ltd.

Crain, W.C. (1985). Kohlberg's Stages of Moral Development. Theories of Development. Prentice Hall Retrieved from http://faculty plts.edu/gpence/html/Kohlberg.htm on 05/11/2015

Dash, B. A. (2005). *A Textbook of Educational Psychology.* New Delhi: Dominant Publishers and Distributers.

Dewey, J. (2011). *Psychology.* New Delhi: Khel Sahitya Kendra.

Feldman, R. (2004). *Understanding Psychology.* New Delhi: Tata McGraw-Hill Publishing Company Ltd.

Kohlberg, L. (1963). The Development of Children's Orientations Toward a Moral Order: 1. *Sequence in the Development of Moral Thought.* Vita Humana 6, 11-33.

Krause, K., & Bochner, S. a. (2007). *Educational Psychology for learning and teaching.* Australia: Thomson Publications.

Ormrod, J. (2000). *Educational Psychology: Developing learners.* New Jersey: Prentice-Hall Inc.

Santrock, J. (2007). *Adolescence.* New Delhi: Tata McGraw-Hill Publishing Company Ltd.

Skinner, C. (2006). *Educational Psychology.* New Delhi: Prentice Hall of India Pvt. Ltd.

Woolfolk, A. (2006). *Educational Psychology.* New Delhi: Pearson Education, Dorling Kindersley (India) Pvt. Ltd.

UNIT 7 METHODS OF STUDYING CHILDREN AND ADOLESCENTS

Structure

7.1   INTRODUCTION

In the preceding Units, you have studied how children go through different developmental stages on the way to becoming adults. In this process, children face a lot of problems related with development and express behavioural problems in the classroom. As teachers or prospective teachers, you must be empowered as a problem solver to understand and solve the developmental needs of children. Classroom research is a small scale research that is conducted in the classroom in order to understand children and solve classroom problems. As teachers or prospective teachers, you might have conducted research in your classroom in order to understand what problems children are facing academically, behaviourally and emotionally. Consequently, the teacher can modify her/his method of teaching or her/his behaviour as per the needs of children accordingly. You may have noted students' problems related with understanding content, adjusting with teachers and peers and sometimes complying with rules and regulations of the school. These factors lead to the necessity of classroom research.

7.2   OBJECTIVES

After going through this unit, you should be able to:

● explain the meaning of classroom research;

- differentiate between action research and case study;

- describe the tools of classroom research

- analyze common problems in the classroom;

- identify and apply the various tools for conducting classroom research.

7.3 RESEARCHING CLASSROOM FOR UNDERSTANDING CHILDREN

Read the following case:

Case1:Reshmi has recently been appointed as a teacher in Class VIII in a government school located in a rural area. On the very first day she has noted that Navin behaves differently from other children. His favourite subject is Social Studies and sometimes Reshmi gets obscure facts from him. In other subjects, he scored low grade though his ability level is high, while in group activity, Navin goes around the entire group and talks with his friends. In spite of the continuous effort put in by Reshmi to remind him of classroom rules, Navin behaves in the same way.

You might have faced such problems in your classroom. What is the problem with Navin? Why is it difficult to keep Navin engaged in group activity? What would you do if you were Navin's teacher? The answer to these questions lies in the need of teachers understanding their children. How could we understand our children? What are the ways that could be adopted to know the children? These are the questions that research assists you to answer.

As teachers, we might conduct research to find out what is going on in our classrooms, and to establish ways of remedying problems. This convinces us of the necessity to explain what things happen and why, and seek ways to understand the child. The teacher's role here moves further to that of inquiring or finding out what one doesn't know.

7.4 MEANING AND PROCESS OF CLASSROOM RESEARCH

Generally, we may define research as a systematic process of making an inquiry about an issue that may lead to new findings, solve problems or develop new theories. It is called systematic because it follows a method which can be justified, validated and repeated. It is called inquiry because it begins with a main problem. You may agree that the goal of classroom research is to improve teachers' own understanding about themselves and their children. The classroom research is not generalizable to wider contexts. The focus is on the practical significance of findings, rather than on statistical or theoretical significance. Classroom research is the formal study of teaching, learning and how children behave in a classroom. It attempts to answer the fundamental questions:

- How well are students learning?

- How do children behave?

- How effectively are teachers teaching?

When we examine the characteristics of classroom research, the following points could be noted down:

1) ***Learner-centered:*** Classroom research focuses on the felt needs of the learners to facilitate learning.

2) ***Teacher-directed:*** Teacher makes the decisions regarding the research according to the needs of students' classroom learning.

3) ***Collaborative:*** All stakeholders such as teachers, students, parents and community may participate in the research.

4) ***Context-specific:*** The teacher of a particular discipline may conduct a study with a particular group of students which is unique and the situations may be different in another classroom.

5) ***Scholarly:*** The teacher conducts the research in a systematic way after reviewing related literature in consultation with experts giving adequate attention to policies and ethics.

6) ***Practical and relevant:*** As the problem selected is based on the felt need of the teacher, the findings of the study will be relevant and useful for the teacher and her/his student.

7) ***Continual:*** Classroom research cannot remain in isolation. It may lead to further investigations.

Generally in classrooms, we use two types of classroom research. They are:

i) Action Research

ii) Case Study

7.4.1 Action Research

It was Kurt Lewin who first used the term '*Action Research*' in 1946 in his paper "Action Research and Minority Problems." You may be familiar with other terms such as participatory research, collaborative inquiry, emancipatory research, action learning, and contextual action research which are other names of action research. Action research is an example of "learning by doing" - a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if they are not satisfied, try again. It gives teachers the opportunity to investigate teaching and learning in their own classrooms. We can say that action research is a process of systematic reflection, enquiry and action carried out by individuals about their own professional practice.

You know that action research has many uses in the classroom as given below:

a) *Teaching methods*: Trying out an innovative method.

b) *Learning strategies:* Teacher may understand the learning strategy of students and modify the method of teaching accordingly

c) *Evaluative procedures:* Trying open book test.

d) *Attitudes and values:* Life skills education through drama or role plays.

e) *Continuing professional development of teachers:* Improving teaching skills, developing new methods of learning, increasing powers of analysis, for heightening self-fulfillment.

f) *Management and control:* The gradual introduction of the techniques of behaviour modification for classroom management.

g)   *Administration:* Improving community participation through different techniques.

Let us discuss about the steps of action research with an example. Read the following case:

Case 2 : Anita a teacher in class IX finds that her students are not able to write answers to indirect questions properly and they lack thinking skills. She wants to adopt a teaching strategy that helps to develop thinking skills among children. An action research with this focus might develop in the following way:

Step 1: Identifying the problem

Anita observes that majority of children are not able to attempt indirect questions in a proper way. She has found out the problem while asking indirect questions in classroom as well as while evaluating answer scripts. Identifying the problem as lack of thinking skills, Anita decides to develop thinking skills among children.

Step 2: Devise a plan

On the next day Anita wants to teach a topic 'Gender Inequality in Education'. Instead of directly explaining about gender inequality in education, she begins the class by writing the following statistics* on the board.

Table 7.1: Literacy rate (per 1000 persons) among persons of age 7 years and above by gender and for each of rural and urban areas in India during 2011-12

Category ofpersons	Rural	Urban	Rural-Urban
Male	791	911	827
Female	606	803	663

(* Source: Adapted from Status of Educational and Vocational Training in India (NSS 68[th]Round).(Sep.2015). National Sample Survey Office. Ministry of Statistics and Programme Implementation, Government of India, p. 27)

Anita: Look at this table. What trends can you see? You can see the gender-wise literacy level of persons (per 1000 persons) of age 7 years and above for the rural and urban areas in India during 2011-12. Now, I want you to think about three questions. First, what can you find out while comparing the male and female literacy level? Second, what are the reasons for the low literacy level of females? Third, what could be some of the school-based reasons for this disparity?

Step 3: Selecting a Course of Action

Anita divides the class into three groups. By doing this, she makes the children engage in group work. Each group starts working on the given issue.

Step 4: Data Collection

During this step of the action research process, Anita observes each group. She notes down the contribution of each student in her diary and also observes some students not participating in the group. It is important to provide specific sources of information if the children needed.

Step 5: Analysis

During this phase, the responses of various groups are examined. She noticed that for question no. 2, all groups have agreed upon the point that girls have to attend to

the domestic chores and hence they drop out of school. While some groups noted other reasons as:

- Inaccessibility of schools

- Responsibility to take care of siblings

- Lack of separate toilets for girls in schools

- Education not considered necessary

Anita concludes this phase of the activity by writing on the board those explanations for which the most evidential support has been found.

Step 6: Organizing data and writing

Anita then decides to organize and write up the results of her attempt in developing thinking skills among children. She shares her experience with colleagues and decides to publish a paper based on this research.

Step 7: Incorporating the results

Anita decides to change her teaching methods in classroom from lecture method to inquiry strategy where there is possibility to increase the thinking skills of students. She also encourages children who are reluctant to speak in the classroom. She thus incorporates the results of the research into classroom practice. In this way, this action research helps Anita to enhance her understanding of children in her classroom.

Step 8: Review

After implementing the changes in teaching styles, the next stage is to review. The questions that arise here include: How successful is my new teaching style? Is it necessary to incorporate other techniques to enhance the thinking skills of children? From this research can I explore new areas for investigation?

Check Your Progress 1

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) Describe the steps of action research on a topic of your choice for your class.

....

....

....

....

7.4.2 Case Study

Case study is an in-depth study of a single person, group, event or community. It is a method through which a very complex issue or field of research is studied initially. A case study consists of reliable data gathered from a variety of sources using different tools and techniques. Like the case history prepared for each patient in the hospital, all pertinent information regarding the child is collected from various sources such as health record, family background details, academic aspects, interests, attitudes and aptitudes. The teacher or guidance counsellor selects methods of data collection according to the situation. The information gathered covers the present status, past

experiences and environmental factors about the child. Though the teacher or guidance worker may not have any control over events, analysis of various factors helps us get a rich and vivid description of events relevant to the case. It also provides a chronological sequence of events relevant to the case.

The following are the procedures that can be followed while conducting a case study of a child:-

a) **Justification for studying the child**: The purpose of the case study should be clear. It could be for assisting a child in overcoming difficulties or for showcasing exemplar performance for others to emulate.

b) **Identification of the child** through factual information such as name, class, age, address.

c) **Family background**: Parents' educational and occupational details, parenting style, aspirations regarding the child and other relevant information such as relationships among the members of the family.

d) **Health record**: Record of illness, height, weight, nutritional status, any physical disability and other details such as gait or speech defects.

e) **Educational data:** Academic performance in class tests, annual exams, participation in class discussions and co-scholastic activities and home work are some of the examples.

f) **Psychological and social data:** Through observation, unstructured and semi structured interviews we could infer the intelligence and social behaviour of a child. Psychological test reports such as intelligence test reports, sociometry and aptitude test reports could also be used.

g) **Determine the status** of the phenomena under observation.

h) Determination of the probable **antecedent of the case.**

i) **Suggest measures** to all stakeholders.

j) **Prepare a report**

The **case study report** usually has certain elements such as introduction, overview/ analysis, status reports, case problems and appendices. The following table gives a brief description of each element.

Table 7.2: Elements of a Case Study

Elements	Description
1. **Introduction**	The justification or rationale should be given in the introduction.
2. **Overview/Analysis**	After collecting all the information listed above such as family background, educational data, psychological and sociological data, analysis of all the details helps us establish linkages and identify the key factors.
3. **Status Reports**	The status report describes the child's condition clearly indicating present situation.

| 4. | **Suggestions for remediation** | Suggestions for students, teachers, parents, and peers are given and follow up schedule also to be included. |
| 5. | **Appendices** | The case study may include as many appendices as required. Observations, anecdotes, diaries, writings, records of conversations, mark lists, psychological test reports, sociograms can be incorporated. |

Suggestions for conducting a good case study

The following suggestions can be followed while conducting a good case study:-

a)   Select a child from your own class

b)   Seek permission for conducting the case study from the parents and class teacher

c)   Build rapport with the child

d)   Collect information from many sources

e)   Suggest remedial measures after discussing with your mentor in the school

Situations when case study needs to be prepared

a)   Exceptionally high achievement or creativity

b)   Exceptionally high talent in art, or sports

c)   Children with disabilities: physical, sensorial, autistic and learning

d)   Children with behavioural problems: truancy, aggressive, stealing, substance abuse

e)   Children with adjustment problems

f)   Children from difficult home environments

An example of a **case study** is given below:

Case 3: In class VIII C of a public school, Radha, a biology teacher found that one of her students was creating disturbance in her class. He was Dhaj who could not sit quietly; he would always be looking here and there. Whenever Radha asked him a question he could not answer. He could not concentrate in the class. When Radha asked about Dhaj to his class teacher, she also agreed with Radha's observations. The child was having problems in attending the class and Radha decided to probe further through a case study. After seeking the class teacher's permission, Radha contacted his parents and with their consent, she started collecting all the details about the child from other teachers, his classmates and his parents to find out the reason for his behaviour in order to suggest remedial measures. He belonged to an upper middle class family. The scholastic data was also collected.

Status Reports

Dhaj was doing well in Physical education and was very poor in all other subjects. He was interested only in games. He had problems in paying attention to reading and writing. He had average intelligence, He was hyperactive and impulsive. He was uncooperative with the peers.

Case Problems

After analyzing all the information, Radha could understand that the child had a learning disability. He also had an inferiority complex as he was always compared to his brother who was a high achiever. Parents never encouraged him. He was often ridiculed. His teacher started to pay individual attention to Dhaj and give him opportunity to express his ideas thereby bringing Dhaj into the active learning process.

Activity 1

Based on your classroom experience, prepare a case study related with the behavioural problem of a child.

....

....

....

....

7.5   TOOLS OF RESEARCH

Action Research is more of a holistic approach to problem-solving, rather than a single method for collecting and analyzing data. Thus, it allows for several different research tools to be used while the project is conducted. These various methods, which are generally common to the classroom research paradigm, include: Observation, Self-Reports, Interaction with Children, Children's Diaries, Cumulative Record, Anecdotal Record and Reflective Journals.

7.5.1   Observation

Observation is a method of measuring children's behaviours directly by watching the classroom events or behaviours. It is the process of gathering firsthand information by observing children in their natural settings. Generally, the data that is collected from this procedure focuses on the frequency with which specific behaviours or types of behaviour occur in the classroom and measure their duration. Classroom observation is widely used as a method for classroom research as well as for classroom performance appraisal.

Observation as a research technique or method implies several features:

(a)   the collection of evidence,

(b)   the examination or analysis of the evidence, and

(c)   the formation of significant judgments based on the evidence and the subsequent implications, such as changes and improvements, to accepted practices these judgments may entail.

Types of Observation

There are varied types of observation that can be used in a classroom. Generally we may divide observation into three types- i) controlled, ii) natural and iii) participant observation.

Controlled observation: In this type of observation, you may plan in advance where the observation will be done, the time and the groups of participants on whom it has to be done. You can use a standardized procedure to observe the participants. Observed behaviour is systematically classified into distinct categories.

To measure the intensity of behaviour, scale can be used and to describe the characteristics, coding can be done using letters or numbers. Coding of the categories on the schedule is done to quantify the collected data into statistics. For example, if you wish to observe the behaviour patterns of boys and girls in the playground, you might note that the boys engage more in risky behaviour involving physical movements as compared to girls. To look for the cause, you would have to make certain observations and do categorization. Due to more number of boys in the playground, it may be observed that boys are engaged in risky behaviour. It may be observed that in reality only two or three risk taking individuals are present and the others are simply following suit. In addition to making a count of number of boys, you have to record the number of individuals doing the activities. In this example, you would record the individual's behaviour along with the count of number of incidents.

Natural observation: In this type of observation, you may use a systematic set of rules for recording and classifying events. It is perceived to be as objective as possible with least intervention of the observer in the process. The result is expressed in quantitative terms. For example, you want to study the risk taking behaviours in adolescents when placed in settings such as mountaineering, rock climbing, bungee jumping, and river rafting. You would then observe the adolescents and record the incidences involving risk taking behaviour in each setting.

Participant observation: In this type of observation, there exists a direct relationship between the observer and the participant. A variety of tools such as, checklists, rating scales, field notes and audio-visual recordings can be used for this type of observation. For example, you wish to study the interest in subjects among the secondary school students. For this, you would observe the class and make note of the children who were actively involved in the class of a particular subject. On the basis of the academic performance of children, you would get an insight into the choices of your children and try to adopt strategies in teaching to attract them to other subjects as well and improve their overall performance.

Check Your Progress 2

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) Suppose you want to observe students' participation in classroom learning. On what basis would you observe them? Frame criteria for observing students' participation in the classroom.

....

....

....

....

7.5.2 Self Reports

Another method to collect data is self-report, in which you respond to questions about yourselves regarding a wide variety of issues such as personality traits, moods, thoughts, attitudes, preferences, and behaviours. A self report is any method which involves asking a participant about their feelings, attitudes, beliefs and so on. In fact, much of social science knowledge and theory are based largely on self-report data. Self-report research requires the collection of standardized, quantifiable information from all members of the population or sample. In order to obtain comparable data

from all research participants, the same questions must be asked. Self-report approaches require individuals to respond to a series of statements or questions about themselves. For example, a survey about local schools might ask respondents questions such as "Do you believe the cost of education in our community is too high?" Respondents would self-report their views by marking "yes," "uncertain," or "no."

The most common forms of self-report are questionnaires and interview.

Questionnaire

Questionnaires are a type of self-report which consists of a set of questions usually in a highly structured written form. It is used when factual information from a respondent is needed. A number of questions in the questionnaire are given to the examinee and s/he answers these questions according to her/his own will. In the next paragraph we will discuss about the various types of questionnaire.

Types of questionnaire

*Close ended questionnaire***:** This type of questionnaire consists of questions which have fixed number of response options. Respondents are asked to check the options that are best suited to them. Responses in such questionnaires may be in the form of Yes/No, Agree/Disagree etc. Example: "Cricket is a game that can be played by anyone" Agree/Disagree.

On the other hand, they do not enable respondents to add any remarks, qualifications and explanations to the categories.

*Open ended questionnaire***:** Open questions are those questions which invite the respondent to provide their own answers and provide qualitative data. This type of questionnaire consists of those questions which require free responses on the part of the respondents. The maximum word limit may be given here. For example: 'Give the two causes of degradation of quality in education.' Open-ended questions are useful if the possible answers are unknown or the questionnaire is exploratory. They also enable respondents to answer as much as they wish, and are particularly suitable for investigating complex issues, to which simple answers cannot be provided. Although these types of questions are more difficult to analyse they can produce more in-depth responses relating to what the participant actually thinks rather than being restricted by categories.

Interview

Fig. 7.1: Conversation between an interviewer and an interviewee

You know that interview is a face to face conversation between two people-the interviewer and the interviewee. Interviews can be structured whereby there is a predetermined set of questions or unstructured whereby no questions are decided in advance.

There are various types of interview. Next we discuss about the three types of interview – i) structured interview, ii) semi-structured interview and iii) unstructured interview.

Structured interview: In this, the interviewer has to strictly follow the schedule and ask them questions in the order provided. The responses given by the interviewee do not affect the nature of the questions to be asked by the interviewers.

Characteristics of the Structured Interview

- The interviewer asks each respondent the same series of questions.

- The questions are created prior to the interview.

- More closed-ended questions are included often.

- As the same questions are repeated there is consistency from interview to interview.

- The interviewer never provides his or her opinion in the interview.

Semi-structured interview: A semi-structured interview is a type where the interviewer has a list of topics on which conversation has to be made. Interviewer asks the questions and on basis of the answer provided, can change or move away from the list. The aim is to follow the order but depending on the responses the course of action can change.

Characteristics of Semi-structured interviews

- The interview is conducted with a list of questions as in the case of structured interview but the interviewer may add or omit questions as per the situations.

- There is more demand on the interviewer to act according to the situation

Unstructured Interview

Unstructured interviewing is recommended only when the researcher has developed enough experience and in-depth understanding about his or her topic of interest to have a clear agenda for the discussion and is open to revision by respondents.

Characteristics of Unstructured Interviews

- The interview will have the appearance of a conversation as the interviewer may build rapport by asking simpler questions and then proceed according to the agenda.

- The interviewer may guide the discussion according to the objective.

- In this type of interview open-ended questions are asked and the interviewer may have little control over informants' responses.

Advantages of Self-Report

The strengths of self-report methods are:

1) The respondents describe their own experiences.

2) Researcher can collect data from large sample at low cost.

3) Reseacher can cover large number of variables.

Disadvantages of Self-Report

The disadvantages of self-report methods are:

1) Participants may not cooperate and may mislead.

2) Participants may not be honest.

3) Questions may not be understood correctly due to language problem.

4) Response rate of mailed questionnaires are very low.

5) Questions may guide the respondent to give a particular reply.

Check Your Progress 3

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) Differentiate between questionnaire and interview.

....

....

....

....

Activity: 2 Have you ever faced any interview – for studies or for a job? In which category of interview does it come and why? Give reasons.

....

....

....

....

7.5.3 Interaction with Children

When we look at what teachers actually do each day that makes a difference in children's lives, there is clear evidence that it is the daily interactions that teachers have with children that are most important. It can occur between the teacher and learners, and/or between learners themselves, either collectively or individually. You know that in a classroom, interaction takes place between teacher and learner as well as learner and learner. Learners will get more knowledge from the lessons when they actively participate in their learning or the teacher participates them in learning activities. These forms are called teacher-learner interaction.

Effective teacher-student interaction creates:

Emotional support: Understanding children in difficulties and assuring them support

Classroom organization: Involving students who appear to be isolated in class activities.

Instructional support: Providing remedial classes or arranging peer tutoring.

Check Your Progress 4

Notes: (a) Write your answer in the space given below.

(b) Compare your answer with the one given at the end of the unit.

i) Observe a classroom interaction. Describe what you observe. In which category of effective teacher-student interaction does it come, and why?

....

....

....

....

7.5.4 Children's Diaries

Children can be encouraged to write about their daily life and experiences for personal recollection. These diaries are very personal though some may publish them later. In whatever form, the notion of a diary is an increasingly relevant way to capture the

practices and experiences of everyday life.

These diaries have many advantages over other data collections methods. They are:

1) more accurate details are provided;

2) more information is obtained; and

3) They supplement information collected through other methods of obtaining information.

Within the autobiographical tradition, diaries are one of the 'documents of life', that is a self-revealing record that intentionally or unintentionally yields information regarding the structure, dynamics and functioning of the author's mental life.

Sample Student Diary

Diary of Aruna,

X^th class student

Monday

Class test today! I got up late. I forgot to keep the alarm. My bus will reach by 8.30am. Took a quick bath changed to uniform and ran to the bus stop with the bag. I did not have any breakfast and did not look at my pet cat. Anyway, I reached school on time. I got anxious about the examination that has to do today. Last class test was not bad at all. But I am panic when I attempt essay questions whether I will get time to complete the answers. Teachers said with practice I will be able to do. I have decided to practice writing answers to essay questions within the allotted time at home.

Activity 3: What would you infer from her dairy? Interpret it.

....

....

....

7.5.5 Cumulative Record

A cumulative record is a systematic account of information about a student. It is an evaluation tool which presents a comprehensive record of the achievement of each student in different aspects such as physical, academic, moral, social and health aspects. The information written in the cumulative record cards is collected from different sources over a period of time. It is a record of child indicating growth and development while in school in all aspects from beginning to the end of his school life. The Secondary Education Commission emphasized the importance of cumulative record card in the following words:

"Neither the external examination nor the internal examination, singly or together, can give a complete and correct picture of pupil's all-round progress at any particular stage of his education, yet it is important for us to assess this, in order to determine his future course of study or future vocation. For this purpose, a proper system of school records should be maintained for every pupil indicating the work done by him in the school from day-to-day, from month-to-month, from term-to- term, and from year-to-year. Such school records will present a clear and continuous statement of the attainments of the child in different intellectual pursuits throughout successive stages of his education."

Need of the Cumulative Record

The cumulative record of a child is needed for the following important points.

- To give a complete picture of a child's all- round progress in different areas i.e. physical, academic, moral, social and health.

- To assess the child's potentialities, interests, aptitude and talents.

- To provide proper guidance and counselling taking into consideration, the child's scholastic and co- scholastic achievements.

- To help parents and teachers in the placement of the child after the completion of study.

- To help in identifying abnormal behaviour of children and those who are weak in studies.

- To help in solving the problems of the child.

Content of a Cumulative Record Card (CRC)

The cumulative record card records the following information regarding different aspects of children's development:

Personal data - Personal data gives introductory information about a child like her/ his name, sex, date of birth, age, permanent address, parents' name and family background.

*Academic data -*It deals with the information about the previous schools attended, present class, roll number, examinations appeared, results, division and percentage of marks.

Health data - It reveals information regarding height, weight, blood pressure, communicable diseases if any, treatments given, food habits, exercise, parental disease if any.

Co-curricular activities data - The child's participation in different co-curricular activities, leadership qualities, certificates awarded, prizes and medals received are recorded in it.

Personality characteristics - This reveals the psychological aspects like intellectual ability, self- confidence, emotional stability, leadership qualities, tolerance, and sense of responsibility etc.

Record of counselling and guidance - Any problems found with the child, date of interview, reasons discovered, remedial measures taken, follow up programmes etc. are mentioned.

*General over all Remarks -*General remarks by the class teacher and Headmaster on the performance and talents of the child.

Activity 4

Prepare a child's cumulative record card on the basis of contents of CRC given above.

....

....

....

....

7.5.6 Anecdotal Record

An anecdotal record is the observed behaviour of the child. It is a record of some significant episode in the life of a child that sheds light on the conduct, thinking, skills and capabilities revealing significant features and characteristics about his/her personality (CCE, CBSE).

Teacher-generated anecdotal records provide an insider's perspective of the child's educational experience. Anecdotal record includes the description of the performance, events or activities going on in the school hours or may be from the bus stop, in the assembly, classroom, playground, pair/group activity, laboratory, dining hall or performance that a learner has completed - anything, anytime, anywhere. You may use anecdotal record for the following purposes.

● To get a longitudinal qualitative picture of the behavioural changes in the life of each child.

● To know the physical, social, economic, aesthetic and cognitive development of a child.

● To assess children in the classroom as well as outside classroom activities.

● To record documents of a child's growth and trends.

● To identify the child's attitude, current skill level, interests and skills.

● To record qualitative information like details about a child's specific behaviour or the conversation between two children.

● To write valid and reliable observation - positive as well as negative, for instance, participation in group, fights, quarrels, failure to attempt or complete assignments etc. related with a child.

When taking anecdotal records the following points have to be kept in mind:

● Record the date, child's name and time of observation.

● Note only what you see and hear.

● Avoid using judgmental words.

● Analyze the information you collected for strengths and needs.

● Relate your interpretation to other knowledge you have of the child.

● Use the information for instructional planning.

Below you can see a sample anecdotal record

Name: Rohan Sharma   **Class:** 9th   **Section:** 'B'   **Roll No.:** 24
Month: October

S.N.	Occasions & Date	Situation observed by the teacher	Teacher's suggestion/comments & Signature
1.	Assembly Hall 20/10/2015	1) Rohan gave his friend Rajat write up for the speech and helped him learn it. 2) He has helped his friend Rajat to speak in the assembly. It shows his strong social skill as well as language skill.	Rohan is intelligent and cooperative.
2.	Language Classroom	1) He has displayed excellent communication skill in English language speaking class. 2) His vocabulary and choice of words are excellent	Rohan should take part in debate. He needs to improve his facial expressions while speaking. He is a confident student.

Activity 5

Observe any child in the assembly/ playground/ classroom. Write her/his anecdotal record of that day based on the sample form.

....

....

....

....

7.5.7   Reflective Journals

Reflective journals are notebooks which are filed, containing children's writing about their school activities and reflecting on their own thoughts. The act of reflecting on thoughts, ideas, feelings, and their own learning encourages the development of meta-cognitive skills by helping children self-evaluate and sort what they know from what they do not know. It is a piece of writing which allows children to record thoughts and insights about their own learning experience. It encourages children to review and consolidate learning, to evaluate performance, to plan future learning based on past learning experience. In such a way, children become capable to take charge of their own learning, and eventually to develop into independent lifelong learners. The process of examining one's own thoughts and feelings is particularly helpful for children who are learning new concepts or beginning to grapple with complex issues that go beyond right and wrong answers. Reflective journals are records maintained by children in which they write their experiences regarding some activities in the school or in their surroundings. The teachers ask them to note down whatever they found to be different or what made them think and ponder about certain learning experiences. They are advised by the teachers to make a noting in the file which they are free to pick up to write their experiences and keep adding their views as and when required. Journals can also be subject specific where children can point out their hard spots and seek answer from friends and teachers. A child's writing style for journals and logs can be informal and sometimes inappropriate. However, to help children learn more about a particular subject or content, you can require children to write more formal entries using correct terminology, facts, and with connections to course content. A reflective journal is a tool that allows children to reflect on and write about progress in their learning. They can identify and reflect on successes and challenges. You can gain information on what children think and feel in a non-threatening way. An example of a Reflective Learning Journal is given below:

Writing your Reflective Learning Journal

In your B.Ed. programme, you have to do observation of schools for 4 weeks. You have to observe the functioning of the school, duties performed by teachers, role of students and their activities in school, and also observe the classrooms. After 4 weeks you have to give a report of your observations. For this, you could practise journal writing. In each journal entry, you might therefore want to write down your reaction, comment, personal feelings, and suggestion to improve teaching-learning activities. For example, you can start by thinking:

- What's my opinion about the school?

- Does the school reflect an inclusive nature?

- How is the leadership style of the head of the school?

- What are the duties I have to perform besides those in the classroom?

- What approach I have to adopt in my class?

- How can I relate the teaching –learning activities of the school to what I have learnt in the course?

Notes:

- Guided questions provided should be in open-ended structure thereby giving chance for in-depth thinking.
- Only provide a few guided questions so that quality reflection of children's learning is possible.

How could it be used?

- For children's reflection during a unit, topic or project.

- As a quick and simple tool for children's self-assessment at the end of a class.

- To enable children to identify and reflect on their success and challenges.

- As a communication tool for children and teachers.

- As a process to refocus on children's learning.

Importance of using it

- It is a simple process

- It promotes students' higher order thinking and enables them to reflect on what has been achieved during a lesson and where future efforts and support should be focused in the next session.

- It helps children to self assess and to set goals for their future learning.

- It engages many of the children in their learning and gives them a sense of ownership and control.

- It promotes literacy, especially if used in learning areas such as Mathematics, Arts, Science, ICT and Interpersonal development.

Activity 6

Prepare questions for writing reflective journal by your language students.

....

....

....

....

7.6 COMMON PROBLEMS IN CLASSROOM AND IMPLICATIONS FOR RESEARCH

Children may face various problems in school, classroom, playground or at home. These problems may be behavioural, academic or emotional. As a teacher you can solve these problems by conducting classroom research. Some of the common problems and their implications are as follows:

Physical and Sexual Maturation

Adolescents face many kinds of problems related to their studies, their bodily and physical changes and, developmental stages which they are going through. Sexual maturation is another development faced by the adolescents. During this age attraction towards opposite sex becomes a strange experience which they feel difficult to discuss.

Implication: Children should be made aware of changes and problems of adolescence. The school should conduct adolescence education programmes. Parents should discuss sex and problems related to sexual maturity with their children. Parents should provide them awareness that sex is not a sin, but it should be in accordance with social norms and social acceptance.

Lack of career guidance

Lack of career guidance is another problem faced by children. Choice of subjects and related career is not easy to decide at secondary and senior secondary levels. They experience huge confusion as they have little knowledge of the career opportunities and the world of work.

Implication: The teachers, parents and school counsellor should work in cohesion and provide opportunities for children to acquire knowledge about various careers, requirements of those careers and the world of work. These adolescents need to be counselled about their interests, abilities and aptitudes and, helped to make a foolproof plan for their future.

Adolescence Confusion

Adolescents usually feel confused about their situations – be it in school, at home or among peers. If the individual is not able to score well in spite of working hard, s/he gets confused whether it is because s/he did not study properly or whether it was because s/he did not present the answers properly in the answer books. Consequently, they feel scared while communicating to their parents about their academic results and grades. They start doubting their self-worth.

Implication: The adolescents need to be guided by their teachers. The teachers should build up confidence in their children. S/he should communicate strategies of learning and develop skill of presenting their knowledge on paper accurately and effectively. The teacher should also develop strategies of coping with stress so that children can learn and live in a stress-free environment.

Problems related to learning level

Many children seem to have problems with working for an extended period of time on a particular task. They may have poor academic performance in one or more academic or subject areas. They are not concerned about better performance in learning and these students usually lack proper span of attention and concentration.

Implication: The teacher should try to involve all children in all types of learning. S/he should provide guidance to children whenever they need. S/he should recognize the cause of child's low achievement. After knowing the problem that a child is facing, the teacher should deal with her/him accordingly.

Problems with peers

Some children may hit, kick, get into fights or verbally threaten or insult others and are often unnaturally aggressive towards their peers. Some children with behavioural problems are inclined to physically or verbally assault others. They may take risks in the classroom, behaving against the rules to show their peers that their performance is outstanding and thereby seeking to be the center of attraction in the classroom.

Implication: You should initiate group activities in the classroom and focus on collaborative and interactive learning with peers. You should act as a facilitator of not only learning but also encourage cooperation among students.

Check Your Progress 5

Notes: (a)   Write your answer in the space given below.

       (b)   Compare your answer with the one given at the end of the unit.

i)   Write down any two common problems that you have observed in your classroom. How do you handle these problems?

....

....

....

....

7.7   LET US SUM UP

Classroom research is the formal study of teaching and learning. Classroom research is a research that is conducted in the classroom in order to understand children and solve classroom problems. A teacher conducts research in the classroom in order to understand what problems children are facing academically, behaviourally and emotionally. It attempts to answer two fundamental questions: (i) How well are students learning? (ii) How effectively are teachers teaching? Action research is "learning the solution of the problem by doing." A group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again. The action research process embarks on finding a problem and then formulating possible actions for the problem, applying an action, and finally evaluating the outcome of the action. Case studies are in-depth investigations of a single person, group, event or community. It is a method used to narrow down a very broad field of research into one easily researchable topic. Action research and case study as methods of research allow several different research tools to be used such as observation, self-reports, interaction with children, children's diaries, cumulative record, anecdotal record and reflective journals. They use triangulation of the data as well. Children may face various problems in school, classroom, and playground or at home. These problems may be behavioural, academic or emotional. A teacher and school personnel can solve these problems by conducting classroom research.

7.8   UNIT-END EXERCISES

1)   What do you understand by the term 'classroom research'? Define the process of action research?

2)   Discuss case study as a method of research. Write down its strengths and weaknesses also.

3)   What are the various tools that are used in classroom research? Write in detail.

4)   Conduct a survey to study the educational and familial problems of IX class students.

7.9   ANSWERS TO CHECK YOUR PROGRESS

1.   i)   Refer section 7.4.1

2.   i)   Write your own answer.

3. i) Questionnaires are a type of self-report method which consist of a set of questions usually in a highly structured written form whereas interview is a face to face conversation between two people-the interviewer and the interviewee.

4. i) Write your own observation.

5. i) Refer section 7.6

7.10 REFERENCES AND SUGGESTED READINGS

- Cherry, K. (n.d.). *Naturalistic Observation*. Retrieved from Classrooms, Studies in Literature and Language, Vol.1, No. 4.

- Cohen, L., Manion, L., & Morrison, K. (2005). Research Methods in Education, (5th ed.). London and New York: Routledge Falmer.

- Gay, L. R., & Airasian, P. (1999). *Educational Research* (6th ed.). New Jersey: Prentice Hall

- Gullotta, T. P., Adams, G. R., & Markstrom, C. A. (1999). *The Adolescent Experience* (4th ed.).San Diego: Academic Press, p. 38.

- Hackshaw, Paul (2001).Classroom Research: Getting started in small-scale research projects in the classroom. *PAC3 Conference Proceedings*. Kyoto Institute of Technology. Retrived from http://psychology.about.com/od/nindex/g/naturalistic.htm on 10/1/2016

- Joshi, A. (n.d.). *Guidelines for Maintaining Cumulative Record Card in Schools*. Retrieved from http://www.preservearticles.com/201105116440/cumulative-records-cards.html.

- Mcleod, S. (2008). *Casy Study*. Retrieved from http://www.simplypsychology.org/case-study.html on 05/10/2015.

- Measuring and Improving Teacher-Student Interactions in PK-12 Settings to Enhance Students' Learning. (n.d.). Retrieved from www.curry.virginia.edu/castl on 11/1/2016.

- Mertler, C.A. (2013). Classroom Based Action Research: Revisiting the Process as customizable and Meaningful Professional Development for Educators. *Journal for Pedagogic Development*, 3(3), pp. 38-41. Retrieved from http://www.beds.ac.uk/_data/assets/pdf_file/0005/2981-30/ Classroom-based-action-research-revisiting-the-process-as-customizable-and-meaningful-professional-development-for-educators.pdf.

- Muhammed, K.V., & Mohamedunni, M. N. (2013). How teachers can recognize and deal with behavioural problems of adolescents in the classroom? Conflux *Journal of Education*, 1(2), p.19.

- Nisbet, J., & Watt, J. (1984), Case study: *Conducting Small-Scale Investigations in Educational Management*. London: Harper & Row.

- O'Brien, Rory (1998). An Overview of the Methodological Approach of Action Research. In Roberto Richardson (Ed.). *Theory and Practice of Action Research*. Retrieved from http://www.web.ca/-robrien/paper/arfinal.htmlon 20/01/2015

- Research Interviews: Forms of Interview. (n.d.). Retrieved from http://www.informat.org/researchmethods/researchmethods-2-00.html on 05/10/2015.

- Susman, G. I. (1983). *Action Research: A Socio-technical Systems Perspective*. London: Sage Publications.

- Watkins,L.(n.d.). Reflective Journals. Retrieved from www.education.vic. gov.au/studentlearning/assessment/preptoyear10/tools/ on 05/10/2015.

- Waxman, H. C. (n.d.). Classroom Observation. Retrieved from http:// education.stateuniversity.com/pages/1835/Classroom-Observation.html on 05/ 10/2015.

- Yin, R. K. (1984). *Case Study Research: Design and Methods*. Newbury Park, CA: Sage Publications

- Zhang, Bennan (nd). *Gazing about with a Checklist' as a Method of Classroom Observation in the Field experience Supervision of Pre-Service Teachers: A Case Study*. 2nd Symposium on Field Experience. Hong Kong Institute of Education. Retrieved from www.ied.edu.hk/fesyon/2A03-005 Full paper. pdf. on 6/10/2015.