

EDUCATION

TEXTBOOK FOR H S FIRST YEAR



ASSAM HIGHER SECONDARY EDUCATION COUNCIL

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Foreword

In order to impart quality education to the students of the Higher Secondary level and also to cater to the need of the hour, Assam Higher Secondary Education Council has been revising its curriculum and syllabi from time to time. It has introduced a revised curricula with effect from 2010-2011 which has its base on NCF-2005. In the context of globalization of the economy, emergence of Information Technologies and application of new technologies in production processes, the National Council of Education Research and Training has proposed a new National Curriculum Framework (NCF-2005) for grades I-XII. This framework, which addresses the emerging developmental issues and other social concerns, provides a basis for the State to design their curricula, syllabi, teaching learning materials etc. In its endeavour to keep the uniformity with the national level, Assam Higher Secondary Education Council after due deliberation decided to develop its curricula and syllabi on the basis of NCF-2005. Accordingly, textbooks have been prepared to materialize the objectives of the curricula and the syllabi.

The preparation of this book was a collective effort of a group of people. Assam Higher Secondary Education Council appreciates the hard work done by the textbook development committee responsible for this book. AHSEC welcomes comments and suggestions which will enable us to undertake further revision and refinement. We would also appreciate feedback from the teachers and the students.

Secretary
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CONSTITUTION OF INDIA

Preamble

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC** and to secure to all its citizen :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all;

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

CHAPTER 1

CONCEPT AND AIMS OF EDUCATION

CONTENT

Introduction

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Etymological meaning of the term “Education”

Definition of Education.

Narrow and wider meaning of Education.

Education as Bi-polar and Tri-polar Process.

Education as a life long process.

Education as modification of human behaviour.

Education as an instrument of social change.

Scope of education.

Types of Education.

Formal Education.

Informal Education

Non-formal Education.

(B) Aims of Education

Individual aim.

Social aim.

Vocational aim

Democratic aim

(C) Relation of Education with other subjects

Relation with Biology

Relation with Sociology

Relation with Philosophy

Relation with Economics

Relation with Statistics

Objectives

After reading this chapter, you will be able to

- ☞ Understand what is meant by the term “education”.
- ☞ Discuss the scope of “Education”.
- ☞ Illustrate different types of Education.
- ☞ Explain aims of Education forwarded by different educationists.
- ☞ Understand its relationship with other disciplines like Biology, Sociology, Philosophy, Economics and Statistics.

Introduction

When you first decided to opt for “Education” as a subject in the first year after your school education, your parents, friends, relatives or even teachers might have asked you what prompted you to go for this subject. Your answers will be wide ranging. Your justification apart, you are probably not too sure of what you are going to learn in Education. The word “Education” has a very wide connotation. In our journey to this field of study we will take you through all the aspects of education and help you to have a clear understanding of the subject.

In this unit you will be introduced to the concept and aims of education which is described as a process of development in man. Education is as deep as life itself and its meaning changes from time to time. You will learn about the true significance and proper implication of its concept. All the thoughts, activities and programmes that make living a fuller and better life of a man possible comprise the scope of education. Along with the scope you

will learn about the different types and aims of education. At the end of this unit you will learn the relation of Education with Biology, Sociology, Philosophy, Economics and Statistics.

(a) What is Education

Education is a very comprehensive term. It is very ancient. Different philosophers and educationists have defined education in a different way. For some, education is the attainment of experience. For the other, it is nothing but the adjustment to the environment. It is designed to help not only children but also the adult people whose education has been neglected in childhood and youth. It is a deliberate and planned activity undertaken by the educator and the educand for moulding the character of the latter.

Etymological meaning of the term “Education”

Etymologically the word “Education” has been derived from the two Latin words “E” and “Duco”. “E” means “Out of” and “Duco” means “I lead”. So, Education

implies that out of the native potentialities I can lead or develop.

Another Latin derivation is “Educare” which means “to enhance”, “to develop”, “to improve”, “to draw out” or “to lead out”. It implies that education is an act of drawing out or leading out something from within the person.

According to some other educationists “Education” has been derived from the Latin word “Educare” which means “to nourish”, “to bring up”, “to foster”, “to raise” the child for development. Education, here is considered as a process, not as a product.

“Educatum.” is the other derivation of the term Education.”. It means “the act of teaching or “training””.

The emphasis on education is based on certain facts. In the first place, the human infant is in a distinctly helpless condition. Without the protection and care of parents and

other adult persons he can not survive.

He is dependent upon the mother for food, comfort and everything that makes life comfortable. During the process of development the parents and adults protect, take care of and educate the young. Through this process of education children grow to become adults. In the course of their growth they learn many activities, know many things encounter many facts and develop ideas.

But during this long period of learning children are not left to learn all these activities and things by themselves. Society brings into existence institutions where they are educated. The educational institutions like the schools and colleges are specially designed and the teachers are specially trained to assist the young people to grow along desirable lines. It would thus appear that education is a process by which learning is produced in the

Points to remember

“EDUCO” and “Educare” refers to “Education” as an act of development from within where as “Educare” and “Educatum” imply that education is an act of putting in something from outside sources.

educational institutions. It is a process, it is something which is “on going”. This process should be regarded as a dynamic and life long process, a passage “from the cradle to the grave”. Education begins at the birth and continues throughout our life. It includes all the knowledge and experiences we acquire at home, school, playground etc. The process of education is continuous with our living. As we are subjected to this process of education, there is a continuous modification of our behaviour, character and knowledge.

Definitions of “Education”

Education is such a term that it is difficult to give a suitable definition to it. Educators and philosophers at different times give different definitions of education. Some of these definitions are quoted below :

According to Socrates “Education is the development of the universal elements, which is dormant in every individual.”

According to Plato “Education is the capacity of feel pleasure and pain at the right moment.”

Aristotle speaks of education as “the creation of a sound mind in a sound body.”

Pestalozzi defines education as “the natural, harmonious and progressive development of man’s innate powers.”

John Dewey maintains “Education is the development of all those capacities in the individual which will enable him to control his environment and fulfil his possibilities.”

Sir Percy Nunn says “Education is the complete development of the individuality of the child so that he

Activity 1

Think of a new born baby. After birth he cried– Why? it is the new environment about which he knows nothing. To adjust himself to the environment, he cries, cries and cries, Here, the mother cools him by giving him food and thus the baby grows up. Now visualize yourself in a similar situation of infancy and think how you have attained the present age. Who helped you to come to this stage and will help you in future till you reach old age.

can make an original contribution to human life.....”.

According to M.K. Gandhi “By education I mean an all round drawing out of the best in the child and man body, mind and spirit.”

According to Swamy Vivekananda “Education is the manifestation of divine perfection, already existing in man.”

introduced to the selective course of experience of his social life.

In wider sense education includes the totality of influences and experiences that an individual acquires throughout all the his long life from birth to death. In a wider sense, one’s life is the background of his education. Whatever broadens our horizon, deepens our insight, refines

Activity 2

Prepare a list of Indian and western Philosophers. Mention the definition separately.

Narrow and Wider meaning of Education

In the narrow sense education is a planned and organized process. It is believed that education of the child starts as soon as he enters the school. Here teacher makes deliberate efforts to inculcate certain values, habits or attitudes in children. Proper curriculum, discipline and method of teaching are followed in the school. Education received by children are measured in terms of marks or grades in examination. Education, here means conscious and planned process through which the child is

our reaction and stimulates our thoughts and feelings, educate us.” In wider sense education is a social process. Man develop relationship to every aspect of the society. This relationship makes him educated. In the true sense education is nothing but the development of an individual.

Education as Bi-polar and Tri-polar Process.

Sir John Adams, in his book entitled “Evolution of Educational Theory” has described education as a bi-polar process. In this process teacher represents one pole and students the other. Teachers

personality influences over students personality to modify and develop. The teacher is mainly concerned with giving knowledge and information to his students. Without teachers',

initiative, whole education process will be aimless. On the other hand, without student, the teachers duty will be meaningless. In the Upanishada, it is said "In the bi-polar process–

Points to remember :

In narrow sense	In wider sense
(1) Education is a planned and organized process. (2) It is imparted in school. (3) It is a deliberate effort exerted by mature person on the immature person. (4) The aim of education is to impart knowledge and to pass the examination.	(1) Education is a life long process. (2) It is continuous from infancy to maturity. (3) It is real life that educates individuals. (4) It aims at all round development of the child.

Education

Teacher....><.... student..... knowledge emanating from the teacher to the pupil, connects the two and the instrument is the mutual discussion."

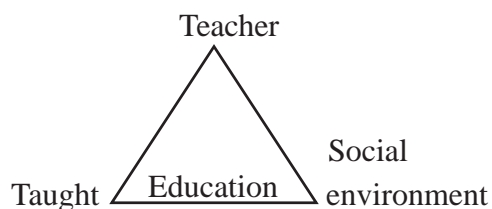
Thus in this process of education interaction takes place between the teacher and the taught.



John Dewey

John Dewey said

"An education proceeds by the participation of the individual in the social consciousness of the race."



John Dewey considered education as a "Tri-polar" process. Along with the teacher and students, there is the society that makes education a success. The child is to live and develop in the community to which he belongs. The teacher designs, plan, execute and evaluate students experiences in the light of social surroundings. He should try to

understand the child's interests, capacities, aptitudes, limitations etc. and act accordingly with that situations. It is the society which will determine the aims, contents, methods of teaching. The teacher tries to modify the personality of the students in the light of the need of the society.

Education as a life long process

Education is the acquisition of experience comprising the whole life of the individual. Formal education has a beginning and an end. It has its definite aim and objective, duration and limit. But in actual, education is related to the life itself. In our day today life we acquire new experiences, modify ourselves, solve problems of our life. Education is considered as a life long process of striving for perfection.

Education as modification of human behaviour

After birth, a baby behaves out of his instinctive tendencies. Education

helps in the process of modification of behaviour. It is education that give rise to the desire and needs for change. The process of modification of behaviour is a continuous one that covers the whole life of man. Education identifies itself through this process of modification.

Education as an instrument of social change

Society changes constantly. Education help to bring such constant changes. It helps the children to know the concept of right and wrong, what should be done and what not. Old customs, faiths and beliefs can be modified through it and bring about progressive changes in them.

Scope of Education

The Scope of any subject is the area it encompasses. Subject like physics, chemistry can be restricted within a definite scope or horizon. But the horizon of Education is such

Activity 3

Make groups in you class, discuss how education can be interpreted in the following areas.

1. Education as adjustment
2. Education as a preparation for life
3. Education as an art and as a science.
4. Education as conservative and progressive.

that it cannot be restricted within specific boundary.

Education means call round development of an individual. It covers all the aspects of human development like physical, mental, moral, social and spiritual. It is the development of man, as a whole. In real sense, education is life which includes manners, values, morals, tastes, skills and attitudes etc. It is a life long process Education begins at the birth and continues throughout our life, It is the complete development of a man's personality. Besides social customs, conditions, languages and beliefs are also included in the scope of education.

It is said that scope of education

refers to the breadth, comprehensiveness and variety of learning experiences, to be provided in educational process. The education process includes the following aspects.

Type of Education

There are three types of education—formal education, informal education and nonformal education.

Formal Education

Formal education is provided in an educational institution in an organised way. This education is consciously planned with a particular end in view. There is fixed courses of study, fixed time table and the period of courses. Qualified teachers are



appointed to teach children. In every step of this education, formal rules, methods and disciplines are maintained. Students evaluation are done on the basis of examination. After passing the examination, certificates, degrees and diplomas are awarded.

- Masters Degree
- Bachelors Degree
- Higher Secondary
- Secondary
- Higher Primary
- Lower Primary
- Pre Primary
- (Formal education)

Informal education

Informal education is more comprehensive than formal education. It is not pre-planned. It is the type of education which the child gets while moving and living in the community with other persons. It is



casual and gained through daily experiences and activities. Agencies of this education are home, religious and social institutions, radio, newspaper, television and the like. Formal rules, disciplines and methods are not followed here. Evaluation is done by observing social adjustment only. No degree, diploma or certificate is awarded at the end of such education. It starts at the very birth of a child and continues till death.

Difference between Formal and Informal education.

Formal education	Informal education
1. Formal education is deliberately planned with a particular end in view.	1. Informal education is purely incidental and spontaneous. It is not pre planned.
2. It is imparted through formal institutions like schools or colleges.	2. This type of education is received from any and every person at any time or place.
3. Formal education has fixed curriculum.	3. Informal education does not. The whole life and experience is its curriculum.

4. Formal education has rigid time table.	4. It is free from any rigid time table.
5. It needs qualified and trained teacher.	5. No need for qualified as well as trained teacher.
6. Discipline is strict as well as flexible.	6. Self discipline is followed which comes from social control.
7. Formal education has fixed rules and regulations.	7. There are no fixed rules and regulations.
8. In formal education, students evaluation is done on the basis of examination. After passing examination, degrees or certificates are awarded.	8. No certificate or degree are awarded. Evaluation is done by observing social adjustment.

Non formal Education

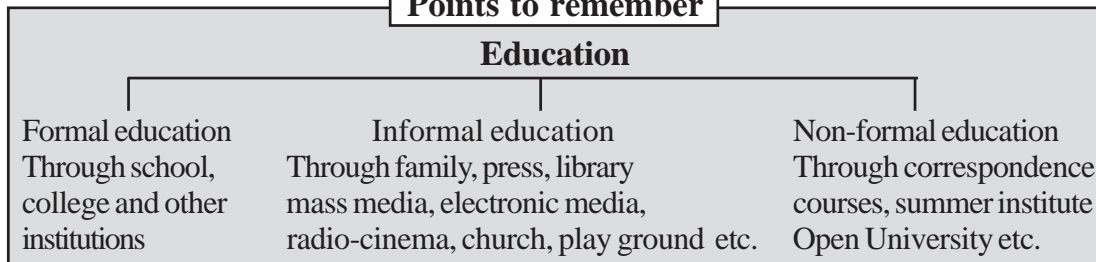
Non formal education has developed as a result of inadequacy of our present system of formal education. The concept of non-formal education was developed by the International Commission. In its report entitled "Learning To Be" the Commission suggests that alternative arrangements should be made for those who can not attend formal education. It is felt that in spite of the vast financial resources being spent on education majority of people do not get the desired education. They may find it difficult, due to their pre-occupation in earning, to join formal educational institution during specific working hours. In order to provide education to all, Indian

government introduced the concept of non-formal education.

Non-formal education is organized and pre-planned but not strictly formal. It aims at all round development of man. It is learner dominated where all efforts are being made to make it easily available to the learner with economy of time and effort. It is continuous and flexible. It is flexible in the sense of entry and exit, re-entry and re-exit. curriculum and maintenance of discipline etc. There is no strict control of the teacher and it is open to all people of the society whether rich or poor, young or old. At the end of the course, students are given certificates and degrees on the basis of evaluation.

Difference between Formal and Non-formal education.	
Formal education	Non formal Education
1. Formal education has fixed concepts and contents in its curriculum. 2. It is time bound. 3. The source of education are school, college, university and other institution. 4. It is imposed by the teacher on the students. 5. It has rigid curriculum strict discipline and fixed goals of education. 6. Certificates, degrees are awarded on the basis of examination. 7. It has age limit 8. It does not utilise all the human resources.	1. Non-formal education has a diversified curriculum responsive to the learners need. 2. It is life long. 3. The source of education are open school, distance education system. part time education etc. 4. In encourages self learning. 5. It has flexible curriculum, inner discipline and self awarness program. 6. Certificates, degrees are awarded on the basis of evaluation. 7. It has no age limit. 8. It is based on the principle of maximum utilisation of human potentials.

Points to remember



Activity 4

Compare formal, informal and non-formal education in terms of aims of education, curriculum, method of teaching, discipline and the process of evaluation.

(b) Aim of education

According to Aristotle “the main aim of education is to create a sound mind in a sound body.”

Education is a purposeful, deliberate and planned activity which endeavours to modify the behaviour of the learner. To live a meaningful

life, it must have proper direction and this is provided by aims of education.

Every one of us, as student or as parent or as teacher is directly interested in education. But there can not be single aim of education which will be acceptable to all. The ideals of education change from time to time. The ideals are not same in the different societies. We are concerned with a changing world and not with an unchanging heaven. As such, an educational aim, however excellent it might be, may not be acceptable to all the societies at all the time. In a wider sense, education is life and life itself is education. Therefore, there can not be a universal aim of education. In ancient India for example, self realization and self purification were regarded as the highest ideals of life and the educational system was devised for the realization of these ends. Whereas, in the modern India, more emphasis is given on democratic citizenship. According to Herbert Spencer “the aim of education is preparation for complete living.”

Plato says “the purpose of education is to give to the body and

to the soul all the beauty and perfection of which he is capable of.”

Pestalozzi believes that the main objective of education is not to teach but to develop.

According to Froebel “the object of education is the realization of a faithful, pure, inviolate and hence holy life.”

Educationists and philosophers gave different aims of education at different times to reflect the ideals of life of that society. Even though ideals of life are similar in outlook, there can not be the same aim of life for two persons. Therefore Percy Nunn believes that the fullest development of the individuality should be the aim of education.

Different educationists have put forward different aims of education. Some of them are discussed below.

Individual aim of Education :

“Individuality is the ideal of life”
Sir Percy Nunn.

A child is born with certain qualities. He is endowed by nature with certain possibilities. Education should aim at developing these

Activity 5

All of us offer prayer in the morning. What do you think is the aim of morning prayer?

qualities and possibilities of a child into a distinct individuality. Each child is an individual distinctly different from others. The central aim of education is the free development of each individual child. According to Percy Nunn, we should value of scheme of education by its success in developing the highest degrees of individual excellence. Education must teach every child to respect the individual life. The individual life is not a private possession but the means by which real value can enter the world. Nunn makes his position clear when he says that nothing good enters into the human world except in and through the free activities of individual men and women.

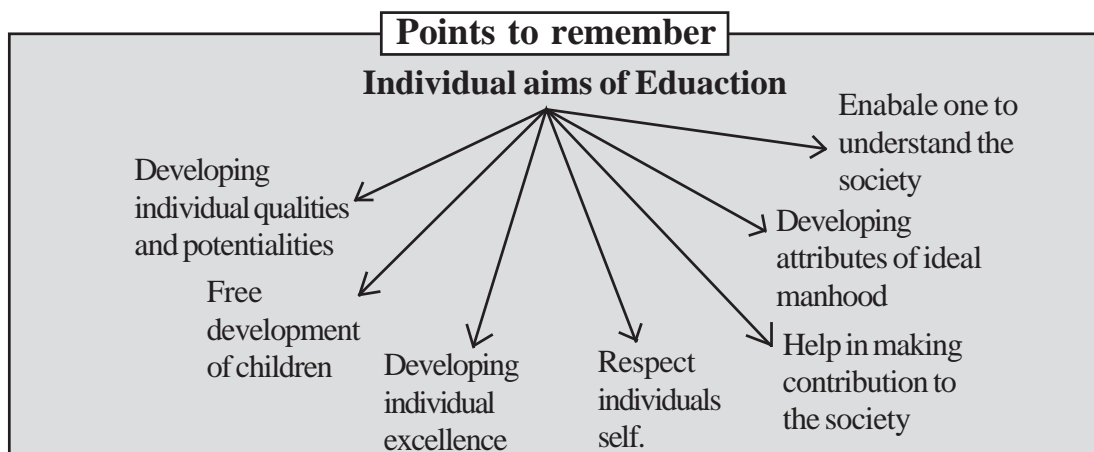
Education should develop the individual fully and thereby help him to make his individual characteristic contributions to human welfare.

Education should therefore “foster the growth of individuality, helping every boy and girl to achieve the highest degree of his or her individual development.”

Education should aim at developing the general attributes of ideal manhood or womanhood in a given society.

Society is not a sum total of individuals. When we consider society and individuals apart they are both abstraction. Therefore we should take into consideration both individual and social aspects of man to arrive at a comprehensive view of education. Education should not only develop the individual excellence of each child but should enable him to understand the society.

Education should be spontaneous, self-guided and self-directed. Individual freedom is very essential to develop individual quality.



Strengths of individual aim of education :

- (1) Biologists say that main aim of education should be to bring forth the dormant potentialities of the individual. Stress should be given on the development of the individual in accordance with his nature.
- (2) Psychologists say that individuals differ basically so far as the biological heredity and genetic qualities are concerned Educational aim should not ignore biological potential and limitations of individuals.
- (3) Spiritualists view “Let everyone be perfect in himself.” Aim of education is to develop capacities of each individual to realize himself.
- (4) Social development depends on individual development. Social achievements are made possible by great persons only.

Weaknesses :

Individual aim has been criticized on the following ground.

- (1) It gives importance on individual development and denies the social development. In order to develop the individual qualities we need a society and unless the society is developed we can not expect to have our own development.
- (2) Individual aim generally emphasizes only on biological heredity but denies the social heredity which is equally important.
- (3) It makes a person selfish and economical because it emphasizes only on development of individual quality and not on development of society.
- (4) Individual freedom advocated by this aim is not always very sound because if little children are given more freedom they may misuse it and might cause more harm.
- (5) Society is considered as a means to develop individuality. Family, school, states are there in the society for promoting individual welfare only.

Activity 6

List down some other areas of strength and weakness of individual aim of education you can think of.

Social aim of education

The concept of social aim was developed in the education system of city of Sparta in ancient Greece which emphasized that each man was born not for himself, but for his country. It was thought that the state has absolute control over the lives and destiny of individual living in it.

John Dewey, the chief advocate of social aim, in his book “Democracy and Education” and “School and Society” emphasized that the development of society is of prime importance for the development of individuality.

It is said that through education, society can formulate its own progress, can organize its means and courses, thus shapes itself in the direction in which wishes to move. Here school is regarded as the primary and most effective instrument of social progress and the teacher is regarded as engaged not only in training of individuals but in the formation of proper social life. John Dewey believes that the school is not a preparation for education life, it is life itself. Life has its own needs and aspirations, which must be satisfied by the method of teaching. As a social

institution, the school must represent life – life as real and vital – life which a person carries on in the home and in playground. School should continue the activities with which the child is familiar in the home.

Education is a process of adjustment and therefore it must aim at helping to adjust person to person. It should prepare a child to live as an effective member of society.

Society is the end of which individual is a means. Education should aim at welfare and progress of the society. It should train individuals to conform to the ideals of the State.

Man is an animal by instinct. It is the society that moulds and makes him a perfect human being.

Social aim emphasizes on establishing close relationship between the school and the outside world.

Individual needs and hopes can be achieved through a well organized and developed society.

One of the main functions of education is to prepare individuals to serve the society and prepare them to sacrifice their individual interests for the welfare of all.

Activity : 7

Write how to educate a child for the society.
Discuss why this aim is needed.

Strengths of social aim :

1. It makes “man” a human being. Man is an animal by instinct. It is the society that moulds him and makes him socialized and perfect.
2. Society can formulate its own progress with the help of education.
3. Education helps in the process of adjustment. It prepares a child to live as an effective member of the society.
4. Education prepares individuals to serve the society. It should train them to conform to the ideals of the state.

Weaknesses :

1. As there is extreme control of the state the needs, desire and interest of the individual are ignored. In a democracy it can be harmful where the ruling party can try to influence the people of its own ideology.
2. This aim does not give importance on individual differences. Individuals can not

develop equally even if the best kind of education is given to them.

3. It reduces the individual to a non-entry.
4. This aim does not give importance to the concept of self-realization. Society is not above the individuals. Here, individuals should be given the opportunities to develop critical thinking, power of observation and logical reasoning. This can not happen if the society imposes too many restrictions on the individual.

Synthesis between Individual and Social aim.

Individual aim looks upon the individual as an independent unit which forms the society or the state. The structure and progress of society depends upon the way in which the individual life is developed. Every individual has a separate entity of his own. As such, it should be the duty of the society to offer scope for individual perfection.

Difference between the individual and social aims of education

Individual aim of education	Social aim of education
<ol style="list-style-type: none"> 1. Individual aim is based on the philosophy of naturalism. 2. Its gives importance on the biological heredity of a man. 3. It aims at development of man’s biological potential. 4. This aim gives full freedom to individuals for development. 5. It says that social development is subordinate to individual development. 	<ol style="list-style-type: none"> 1. Social aim is based on the philosophy of pragmatism. 2. It gives importance on social heredity of man. 3. It aims at attainment of social efficiency of man. 4. This aim gives full freedom and power to the state. 5. It maintains that individual development is subordinate to social development.

Social aim of education says that man is born in society and it is the society that creates him. what the individual considers to be his own. is borrowed from society. Social life is greater than the individual life. Society is not merely a collection of individuals. The development of man depends on the development of society.

Present age is regarded as the age of synthesis in which all the diverse thoughts and ideals are harmonized. Individual and social aim should not be viewed separately. We should not emphasise on individuality to the extent of ignoring the interest of the society. Every individual develop in terms of his own nature which is as truly social as self regarding. Cut off

from the society, the individual can not realize himself. Every human being is social by nature and he is capable of reaching his fullest development only in the society. Percy Nunn also believed in the need of a social environment where the individuals could develop their goodness.

On the other hand, we should not emphasise the claim of the society too much by ignoring the innate abilities and potentialities of an individual. Society should provide ample scope for the development of the powers and the capacities of the individual. Similarly, every individual should try to contribute towards the welfare of the society. In other words, education should aim at developing some social individuals.

Individual and social aims of education are not contradictory but complementary to each other.

John Dewey, the chief exponent of social aim was not indifferent to the individual aspects of education.

Vocational aim of education

In the past social life was very simple. The son usually adopted the profession of his father. In modern times, with great advancements in the field of science and technology, the simple social structure of the past has no place. Parents seldom find any time to impart the necessary education and training to their own children in the vocation, they are themselves engaged in. The result is that educational institutions have to perform their function also, along with imparting general education.

T. Raymont supported for introducing vocational subjects in the education system.

Mahatma Gandhi was the chief supporter of this aim of education. He believed that the child should be given education through some vocation.

It is believed that children are to bear future economic responsibility. To fulfill basic needs of life, education should enable the child to earn his bread when he is grown up. Hence the aim is sometimes called the

“Bread and butter aim” or “the Utilitarian aim”.

Vocational aim makes an individual self sufficient in life and this makes him mentally and morally strong, satisfied and self confident.

State is responsible to train its people in making them economically productive. Vocational efficiency and economic competence are the present need of social reality. The state or the government should serve this need toward social end.

Every individual in a democracy has the right and duty to be performed toward society. Economic involvement of individual may only make him useful, loyal and disciplined citizen. This can be achieved by none other than the vocational ideal of education.

Importance of Vocational aim

1. Vocational aim makes one economically self sufficient.
2. It is the only hope of children with lower intelligence.
3. It helps the State in making effective use of man power resources for country's development.
4. It helps in the creation of good citizen.
5. It is essential for solving the socio economic problems and bridging the gap in society.

Criticism of Vocational Aim

Vocational aim of education is not a complete aim of education. It does not meet all the needs of human life. It gives more emphasis on utilitarian aspect of life. Though education should encourage an individual to select a vocation in life, he can not live by “bread and butter”.

Man has to develop physically, intellectually, morally and spiritually. If his education is reduced to vocational training alone, it will remain only a half way for complete living.

An individual has to acquire, preserve and protect the vast human culture, literature and science and contribute something to the society. He must be conscious of his rights and obligations. He must be able to understand and enjoy a richer and fuller life. Vocational education may produce doctors, engineers but not good man.

Liberal/Cultural aim of Education

The ancient Greek as well as the Indian Philosophers had maintained that education is to liberate or set free our mind or soul from the

bondage of the body. Our soul which is part of the eternal soul is by birth confined to the body and its bodily needs. Education is the means to liberate the soul and to mingle with the eternal soul, the God. This aim is also known as the cultural aim of education. Education here, makes man refined and cultured that may enable him to rise from the animal level to the spiritual level. Liberal or cultural aim serves the aesthetic, moral and spiritual need of man. It helps man in utilising leisure hour in a more healthy and creative way.

Although differences are found between vocational and liberal aim of education, both help in the welfare of manhood.

Democratic aim

By democracy is meant “A government of the people, by the people and for the people.” (Abraham Lincoln).

It is based on the sound principle of equal opportunity for participation by every member of the State. Every citizen in a democratic state should have a clear understanding of his rights and duties to the state.

Activity : 8

What do you want to become in your life-teacher, lawyer, administrator or counsellor? Education is very essential for worth living.

John Dewey said that education is a dynamic process to bring about the progress of all aspects of society social, economic, political and cultural. In a democracy, education must not only to preserve cultural values but also to bring about desirable changes in the society and help the young pupil to adjust with the environment. It must develop four qualities in the students-

- (1) Self realization
- (2) Human relation
- (3) Economic efficiency
- (4) Civic responsibility.

The Primary aim of education is the

- (1) Creation of democratic personalities : Democratic education should evaluate all aspects of personality. Its main aim should be the inculcation of democratic system of values. Members of the school community should be united by democratic philosophy of life.
- (2) Education for citizenship is essential for democratic machineries. In a democracy, every citizen must be fully developed in the know of his rights and duties.

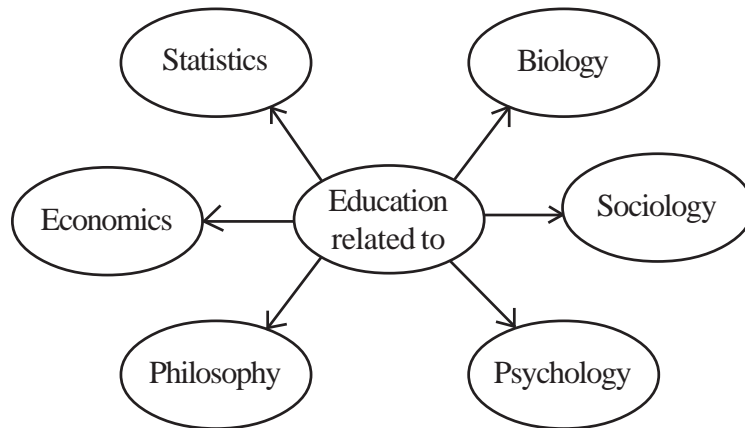
- (3) Developing interests and attitude towards universe : The school should develop worthy interests in the child by providing activity, interest and cooperation. It should develop right type of attitude towards the Universe.
- (4) Developing sound habit of thinking : One of the aim of democratic education is the development of sound habit of thinking. Projects and problems should given. These will provide them material for thinking.
- (5) Mastery of individual and social skill : In a democracy, pupil should acquire mastery over facts and skills that are individual and socially useful to them. Children should get both general and vocational education.
- (6) Capacity for clear thinking : A democratic citizen should be able to think clearly and reasonably. He should be intelligent enough to be able to distinguish between true and false.
- (7) Passion for social justice : Education must be able to develop in the young minds a passion for social justice. He must be sensitive to social evils and exploitation.

(c) Relation of education with other subjects :

Education as a subject tries to determine the norm, goal or ideal that may be generally acceptable. As a normative science it studies various

problems comprehensively and determines into theories, laws and principles that are generally acceptable.

Education is related to various subjects. Some of them are outlined below :



Relation of education with Biology

Education is closely related to Biology. Both Education and Biology study on man and environment. Biology studies on influence of heredity and environment on the development of the individual where as education also studies on influence of both on acquisition of knowledge. While education studies on physical, mental and emotional development of an individual, Biology studies on the physical development of an individual. In case of environment,

Biology deals only with the physical environment and its impact on living beings whild education deals with both physical and social environment and its impact on individuals.

Biology deals with central nervous system, functions of brain, gene, chromosoms, hormone etc. Education helps in widening our knowledge on these areas.

Biology makes a detailed study about the dietary habit of man, what type of food should be consumed by man to achieve proper nutrition and why. Education also studies on

different types of food, their nutritional value and so on.

Relation of Education with Sociology

Education, as we all know is a broad concept referring to all the experiences in which learners can learn something. It is a social endeavour designed to get the maximum from the ability of every member of the society. It involves both teaching and learning process. It focusses on the development of intellectual skills and values. It is perceived as something where children can develop to the fullest extent according to their potential.

The word 'Sociology' has been derived from the latin word 'Socio' meaning companion and Greek word 'Logos' meaning 'Scientific study'.

Sociology is the systematic study of society. It encompasses all the elements of society, i.e. social relation, social stratification, social interaction and culture. The scope of sociology is very wide. It ranges from the analysis of interaction of two persons to the global social interaction in global institutions like UNESCO, UN etc. Sociology can be interpreted as that unknowingly keeps the society going.

The relation between sociology and Education has always been a subject of debate. One school says education is meant to overcome the inequalities of society whereas the other school says that the prime function of education is to promote the equilibrium status of the society. Believers in the first theory say that education is a social effort and hence it runs the way society wants. And Society moves in the direction of the dominant group.

The first school of thought is said to be positive and the second school of thought is termed as negative. Altogether there are diverse opinions as to which theory is most relevant, one thing is clear that education is a social effort and it reflects, rather than directs society. It can be said to be directing and guiding the society because there is a social force behind education.

Relation of Education with Philosophy

Education and philosophy are closely related.

Philosophy lays down the principles and directions for moulding the behaviour of an individual. Education aims at

Activity : 9

Discuss some other areas whrer Biology can be related to Education.

moulding the behaviour of an individual and there by making him perfect.

Philosophy lays down ideals, values and principles of life, Education works out those ideals, values and principles. Philosophy formulates methods and education processes it.

Philosophy and education are nothing but the two sides of the same coin (Ross). Fichte has said that the art of education is incomplete without the help of Philosophy.

Philosophy provides aims of education. Regarding curriculum, method of teaching, maintenance of discipline, influence of Philosophy appears to be very essential.

Every great philosopher has said something on education. Socrates, Plato, Aristotle, Rousseau, Gandhiji, Rabindranath Tagore etc. are known not only for their philosophical but also for their educational ideas.

Rusk siad ‘Philosophy formulates what should be the end of life while education offers suggestions how this end is to be achieved.’

Relation of Education with Economics :

Education and Economics are closely related.

It is seen that some countries are very rich in natural resources but very poor in economic conditions. Where as some other countries are very poor in natural resources but economically they are very rich. Education makes a country economically rich. For Example, Japan is a very rich country because 100% of its population are educated.

Vocational aim of education says that children are to bear future economic responsibility. To fulfill the basic needs of life, education should enable the child to earn his bread when he is grown up. This aim is called “Bread and butter aim” or the “Utilitarian aim”. There are some parents who have this aim when sending their child to school. Here employment is related to education. It is believed that the more educated people are, the higher will be their level of income.

Points to remember

- | |
|---|
| <ol style="list-style-type: none"> (1) Philosophy points out the way to be followed by Education. (2) Education is the best means for the propagation of Philosophy. (3) All great philosophers of the world have also been great educators. |
|---|

Economics teaches man to be better producer, both for his personal benefit and for his country too. This end can be achieved by education only.

Education teaches self realization and gives self satisfaction, which is not possible without a good economic life of an individual.

In our country, “the problem of unemployment” has become more acute mainly because of explosion of population. In order to reduce the burden of the problem of population, on the country in future, individuals are to be made literate and self reliant. It is nothing but. “education” that will bring in the change and make people understand and realize the adverse effects of population explosion.

Relation of education with Statistics :

Statistics deals with collection, analysis and interpretation of data. Some analytical methods and means are used for giving diagrammatic and graphical representation of available

data. Education helps in the entire process from collection of primary data to its final presentation in its diagrammatic form which helps in instant understanding of any problem or issue and providing remedial measures.

Statistics is used in every field such as Economics, Agriculture, Psychology etc. It helps in the vivid presentation of a factual situation and also in its easy understanding and interpretation. Education is the subject which plays a vital role in the entire process.

Statistics with its various methods and procedures helps in providing explanations to the numerical information collected for a given subject. For example, to analyze whether the questions set for an examination achieve its direct result, one can find out by tabulating the numbers scored by the students and then giving a graphical representation of the scores. The questions will be interpreted as difficult if the graph is positively skewed and it will be

Points to remember

Kongo is rich in natural resources but poor in economic conditions. Holland, Denmark are rich in economy but poor in natural resources. It is nothing but education that makes a country economically sound.

interpreted as easy if the graph is negatively skewed. The questions will be interpreted as ideal if the graph is a normal curve. In such a situation intelligence level of the students is considered to be normal.

Various kinds of information can be

presented in the form of bar diagram, graph, pie-chart and histogram etc. Statistics with its different methods helps us in the analysis and study of various subjects in a scientific way. In every stages of education statistics play in important role.

Activity : 10

Find out how many students of your class are interested in Music, Arts, Theatre and so on. Make a table representing the data. It will help you in selecting students for any competition organized by your institution.

Summary :

- ❖ Education is a very comprehensive term. It touches our life at every point, guides and directs our thoughts, feelings and activities. It makes a human being different from other animals.
- ❖ Concept of education may be interpreted in terms narrow and wider sense, education as bi-polar and tri-polar process, education as life long process, education as modification of human behaviour and education as an instrument of social change.
- ❖ Different types of education are – formal, informal and non-formal education. Formal education is imparted through school, college and other institutions; informal education is imparted through family, press,

library, radio, cinema, playground etc.; and nonformal education is given through correspondence course, summer institute, open university etc.

- ❖ Education is a purposeful deliberate and planned activity which endeavours to modify the behaviour of the learner. It is a life long process. To live a meaningful life, it must have proper direction and this is provided by aims of education.
- ❖ Different educationists have put forward different aims of education. Some of them are individual aim, social aim, vocational and democratic aim. Individual aim says that education should give top priority to develop individual excellence. Social aim maintains that development of society is of prime importance for the development of individuality. Vocational aim makes a person self-sufficient. It says that to fulfill basic needs of life, education should enable the child to earn his bread when he is grown up. Democratic aim maintains that education must develop four qualities in the students namely self realization, human relationship, economic efficiency and civic responsibility. It should help the young pupil to adjust with the environment and to make desirable changes in the society.
- ❖ Education is closely related with Biology, Sociology, Philosophy, Economics and Statistics.

QUESTIONS

1. What is education? Explain its meaning by giving suitable definitions.
2. From which word, the word “Education” has been originated?
3. Explain the scope of Education.
4. Write in brief about the narrow and wider meaning of education.
5. Education is a “Bi-polar” as well as “Tri-polar” process. Discuss.
6. Explain the following concepts-
 - (a) Education as a life long process.

- (b) Education as modification of human behaviour.
 - (c) Education as an instrument of social change.
7. Write briefly on -
 - (a) Formal education
 - (b) Informal education
 - (c) Non-formal education
 8. Distinguish between -
 - (a) Formal and informal education
 - (b) Formal and Non-formal education.
 9. Who was the chief supporter of individual aim of education?
 10. What is meant by education for individuality? How far do you accept this view?
 11. Explain the social aim of education with its merits and demerits.
 12. Make a difference between individual and social aim of education.
 13. The individual and social aim of education are not contradictory but complementary to each other. Discuss the statement.
 14. What is vocational aim of education? What makes this aim so important for the society.
 15. What should be the aim of education in a democracy?
 16. Write briefly on the relation of education with
 - (a) Biology
 - (b) Sociology
 - (c) Philosophy
 - (d) Economics
 - (e) Statistics

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CHAPTER 2

STAGES OF HUMAN DEVELOPMENT

'Plants are developed by cultivation and men by education'

– J.J. Rousseau

CONTENTS

Introduction

(A) Growth and development

Elements of development
General characteristics of development. Determination of stages of human development.

(B) What is infancy?

Psycho-physical characteristics of infancy
Psycho-physical needs of the infants
Influence of home on child's development
Educational provision for infants

(C) What is childhood?

Characteristics of childhood
Educational provision for childhood.

(D) What is adolescence?

Characteristics of adolescence
Need of the adolescent
Problems of adolescence
Educational provision for the adolescents
Highlighting key points

Objectives of this unit :

- ☞ To impart education about development and its characteristics.
- ☞ To discuss about the stages of human development.
- ☞ To discuss the role of home on child's development.
- ☞ To discuss about educational provision of first three stages of development.

Introduction

A new born baby has to adjust with the external world. At the early stage of human life the baby is helpless. He or she can not eat or dress without the help of parents or other. With the help of parents or others the baby is in the process of gradual development. His or her course of development has been classified into four major stages as infancy, childhood, adolescence and adulthood, Since human development is a continuous process it can not be distinctly divided or separated one from the other. It is for our convenience that we proceed to study them separately. It is to be mentioned that there are different views regarding the time limit and stages of development among the educationists and thinkers.

Growth and Development :

Generally the term 'growth' and 'development' are not the same. Growth is used in physical sense. It usually refers to the changes in the quantitative aspects like increase in size, length, height and weight, On the other hand development is a much broader term. It implies all round

changes in shape, form or structure resulting in improved worth or functioning. It means changes in the qualitative aspects of human life.

Development has four basic elements :

1. Growth
2. Maturation
3. Experience
4. Social transmission

General characteristics of development :

From the point of development, different individuals manifest different characteristics. As there is individual difference among individuals, so the development process also manifest differences, These differences can be seen either in physical or in mental dimension or sometimes in both. The development characteristics of an individual may be observed in general up to the age of maturity. Some of general nature and significance of development may be identified below.

1. Developmental process is influenced by two important factors. These are hereditary or the

genetic factor and the environmental factor. The interaction of both factors lead to the proper development of an individual.

2. The rate and speed of development can not be uniform and regular. There is a cyclic order that maintains in such development.
3. Development is a continuous, comprehensive and long term process. A clear line of demarcation can not be made between the two distinct stages.
4. The process of development differs from sex to sex. It has been

observed that in general the rate of development in the girls accelerates the boys about two years.

5. Development may take place in four major areas or aspects as physical, mental, emotional and social. All these four major aspects of development have close relationship. All these aspects influence each other.

Determination of the stages of human development :

The Division of the stages of human development as made by the educationists and thinkers may be described below.

Points to remember

- Growth and development :
Growth and development are not the same. There are difference between the two.
Development has four basic elements. Such as– (1) Growth, (2) Maturation, (3) Expenses and (4) Social transmission.
- Development has some general characteristics.
- Determination of the stages of development :

Stages of human development

Rousseau's division : *The first attempt to divide human life into four stages was made by Rousseau. This division is the first comprehensive and dependable division. In his great book 'Emile' he wrote on the stages of development of human life. He had also made necessary educational provision for each of these stages. The age limit and stages of development made by Rousseau was as follows :*

1. *From birth to 5 years – infancy*
2. *From 5 to 12 years – childhood*
3. *From 12 to 15 years – Early adolescence.*
4. *From 15 to 20 years – Late adolescence.*

Earnest Jone's Division : *Keeping conformity with Rousseau's division Dr. Earnest Jone's has divided into four stages of development. They are – infancy, late childhood, adolescence and maturity. According to him adolescence and adulthood are the recapitulation of infancy and childhood respectively. His division may be described below :*

1. *From birth to 5 years – Infancy*

2. *From 5 upto 12 years – late Childhood.*

3. *From 12 upto 18 years– Adolescence*

4. *From 18 to above– Maturity*

Ryburn's Division : *W. M. Ryburn has given us a special division of the stages of development, which is somewhat more analytical in nature. His division are infancy, early childhood, transition period, late childhood. early adolescence and adolescence. Thus Ryburn has outlined six stages of development through which he tried to make detail analysis of the childhood and adolescence stage. He had also drawn our attention to the physical and mental development which generally take place during childhood and adolescence. His analytical nature of the division may be presented below :*

1. *Infancy – 0 to 2½ or 3 years*

2. *Early childhood – 3 to 6 or 7 years – period of mental growth*

3. *Transition period – 6 or 7 to 8 years– period of physical growth*

4. *Late childhood – 8 to 12 years – period of mental growth*

5. *Early adolescence – 12 to 14 years – period of mental growth*

6. *Late adolescence – 14 to 18 years – period of mental growth.*

From above divisions of the stages of development it is observed that educationists and thinkers differ in their options. Whatever may be the views of the educationists and thinkers regarding the stages of

development in more general and accepted way, they may be divided into four stages as infancy, childhood, adolescence and adulthood. Among all these four stages, the first three stages are discussed below. Because these three stages are more important from the point of view of development and education.

Points to remember

❖ **Rousseau's division :**

1. *Birth to 5 years – Infancy*
2. *5 - 12 years – childhood*
3. *12-15 years – early adolescence*
4. *15-20 years – late adolescence*

❖ **Earnest Jone's division :**

1. *Birth to 5 years – Infancy*
2. *5-12 years – Late childhood*
3. *12-18 years – Adolescence*
4. *18 to above – Maturity*

❖ **Ryburn's Division :**

1. *Infancy – 0 to 3 years*
2. *Early childhood – 3 to 6 or 7 years*
3. *Transition period – 6 or 7 to 8 years*
4. *Late childhood – 8 to 12 years*
5. *Early adolescence – 12 to 14 years*
6. *Late adolescence – 14 to 18 years.*

Generally stages of development has been divided into four parts – infancy, childhood, adolescence and adulthood.

What is infancy?

Infancy is the first stage of human life. It covers the period from birth to 5 years. It is considered as the most important stage of development. Because it is the foundation stage of human life. Psychophysical characteristics of infancy may be described below :

1. Quick physical growth : Rate of physical growth is the highest in very first year of life. Normal birth weight of the baby increase to double within five months and to triple within one year. At first the baby is immature and helpless. He or she needs all physical care and attention of parents or elders. The baby develops certain mature abilities from the prenatal state. At the initial stage he or she does not have control of his motor movement and coordination. But gradually he acquires the fundamental motor ability of sitting, standing, crawling, walking, running, jumping etc. within three years.

2. Dependence : The infant depends on others for his works. He depends on mother or other for bathing, feeding, dressing etc. but gradually

the infant able to do some essential works.

3. Playfulness : The child likes to spend most of the times in different plays. Development of motor ability makes a child playful. Play helps a child to acquire motor skill and efficiency. It also develops in the physical and mental development of the child. Through play a child can adjust with his friend and society.

4. Language development : Infants begin to learn language at this stage by initiating the parent or elders in the family circle. The child learns some meaningless words at about six months. He can use single word in one year. Gradually the number of vocabulary increases and he is in a position to speak his mother tongue at the age of three years.

5. Sensory Development : A baby can not make adequate response to his physical situation within a few days of birth he shows gradual awareness and sensitivity to experiences more particularly to visual, auditory and tactile senses within three months his physical reaction appear to be more meaningful.

6. Curiosity : The infant is very curious during this period. He becomes curious towards his environment, when he comes in contact with it. Due to his nature infancy is known as the 'questioning age'. The parent and elders should try to give simple answer to their questions as far as possible. It helps in mental and intellectual development of the child.

7. Imaginativeness : Child lives in the world of imagination. He shows his imagination through his play activities. Little imagination gives joy to the child but too much of imagination may make him confused between reality and imagination.

8. Imitativeness : The infant is imitative by nature. Children learn everything by imitating his parent and other elder members of the family. He learns to eat, sit, dress, and speak etc. by imitating others.

9. Animism : A typical nature of child's mental life identifies itself with the sense of animism, As the sense of reality is immature, the child thinks that every objects and things have life. Everything can feel

pleasure and pain, joy and sorrow like him. As for example, when the child falls on the ground then he begins to cry. When someone hits the ground then he feels pleasure.

10. Instinctive tendency : The behaviour of an infant is dominated by instincts. His instincts and imprints are quite natural and need based. Physical satisfaction give him joy and dissatisfaction the sorrow. His main emotions are fear, anger and love. The emotion of an infant change frequently.

11. Narcissism : Sexual life of infancy has been described as narcissism or self-love. According to psycho-analysts like Sigmund Freud said that the infant has own sexual life. He deserves sexual satisfaction out of the pleasurable excitation of his own body. The body sentiment or sex pleasure at this stage has been derived from oral, anal and skin sensation.

12. Ego-centrism : The child is egocentric. The child is more concerned for his own needs and interest. He does not like to share his

beautiful things with others. The child always seeks to centralize the attention of everybody towards himself.

Psycho-physical needs of the infants :

The child feels some psycho-physical needs. Some of the important needs of the child are given below :

1. Physical needs : Though man is the supreme creature of God, yet during the stage of early infancy a baby can not do anything without the help of others. The baby is totally dependent on others for his works. He has the need of food and cloth, physical care, rest; sleep etc. Satisfaction of these needs make the process of normal growth and development very easy. The child is mainly depends upon the mother for health, nutrition and hygienic condition.

2. Need of play : Play is the vital physical and psychological need of the child. Play gives pleasure. Play makes his respiratory, circulatory, muscular and digestive system normal. Emotional maturity, social adjustment, language development etc. possible through play.

3. Need of love : Need of love and affection is very essential for the child. The child passionately seeks to be loved by all the persons concerned to his association. It helps in mental and emotional development of the child. It may grow self confidence in him and make his early personality more attractive. It saves him from the harmful effects of repression and delinquency.

4. Need of emotional security : The child needs emotional security from the family members. He must feel emotionally safe and secure under the loving care of the parents and elders. It may give a new vitality and strength to his thought, feeling and activity. In the absence of such security child's emotional life may be crippled.

5. Need of status : During the stage of infancy the child is self-conscious of his own status, and honour in the family. He wants the elder members to give due share of his rights and duties to be performed. He also wants to get recognition from others. When the child fails to get due recognition, status etc. in natural way he is frustrated.

This frustration may harm him. This harmful state has negative effect on the personality of the child. So everybody should pay attention to his status.

6. Need of freedom : Naturally the child is the lover of freedom. So he seeks freedom from all sides. In thought, feeling and deed the child seeks to be free. A state of natural freedom is necessary for his self expression and development. According to some psychologists and educationists freedom is necessary for educational development.

7. Need of satisfying curiosity : By nature children are curious to know all the new things. Infancy is the stage of questioning. So he puts questions to his parents and elders to know all unknown things and beings. Everybody should try to give the satisfactory answers of the child's questions. It helps in mental and intellectual development of the child. Influence of home on child's development: home is best place for development of the child. It forms the basis of his super structure of personality. In regard to influence of

home attention may be drawn to the following points.

1. Physical influence : After birth the child comes under physical influence of home. He depends upon the mother for health, nutrition and hygienic condition. Proper physical care is necessary for healthy child.

2. Emotional influence : An atmosphere of love and affection and close understanding of the member of family may give emotional security to the child. This is important for healthy growth of his personality. It gives him bravery and self confidence. Without love and affection frustration and repression may lead to all sorts of complexities in the later years.

3. Cultural influence : A child acquires all the social customs, traditions, faith, belief, religion etc. from home and identifies himself with them. Communal characteristics are formed to a child through these influences.

4. Influence of material condition : Material condition of home influence on child's development. On the other

hand, poorer material condition has its negative effect on the child.

5. Moral Education : The infant is imitative by nature. He learns moral sense or moral sentiment from parents or other members of the family. Moral way of life and standard maintained by the elder members may have their relative effect on the child. He acquires the knowledge of moral values like justice-injustice, right-wrong, vice-virtue etc. from the family. So development of moral sense and formation of moral sentiment in child mind depend on home.

6. Influence of discipline :

Disciplinary life and standard of the child is built at home. Good discipline at home, develops the sense of subordination, punctuality, regularity and sincerity in his mind and behaviour. Discipline is of great importance in every walk of life. There can be no peace and happiness in the family if there is no discipline at home. Complicity may be arised from indiscipline.

From above discussion it may be said that home is the best place of development of child's personality.

Educational provision for infants :

Infancy is the first stage of human life. During infancy educational provision should be made keeping in view of their psycho-physical characteristics and educational provision for infants may be summerised with the following points.

1. Proper care is needed for awakening the dormant qualities of child.
2. Calm and peaceful environment for education should be made.
3. Play, music, dance etc. should be the most important part of education. Because through these the child gets joy. Moreover they help in the physical and mental development of child.
4. Parents and teachers should take proper care for physical, mental, emotional and moral development of the child.
5. Wishes and desires of the children try to be fulfilled. These should be utilized in proper path.
6. Importance should be given for development of thinking, reasoning and imagination of the child.

7. Child should be taught through mother tongue as far as possible. Because infancy is the first period for language development.
8. Since the child wants to know everything surrounding him, instinct of curiosity should be fulfilled.
9. Instruction be given to maintain neat and clean.

Points of remember

- ❖ Infancy covers the period from birth to 5 years.
- ❖ Psycho-physical characteristics of infancy are –
 1. *Quick physical growth*, 2. *Dependence*, 3. *Playfulness*, 4. *Language development*, 5. *Sensory development*, 6. *Curiosity*, 7. *Imaginativeness*, 8. *Imitativeness*, 9. *Animism*, 10. *Instinctive tendency*, 11. *Narcissism*, 12. *Ego-centricism*.
- ❖ **Psycho-physical needs of the infants :**
 1. *Physical need*, 2. *Need of play*, 3. *Need of love*, 4. *Need of emotional security*, 5. *Need of status*, 6. *Need of freedom*, 7. *Need of satisfying curiosity*.
- ❖ **Influence of home on child's development :**
 1. *Physical influence*, 2. *Emotional influence*, 3. *Cultural influence*, 4. *Influence of material condition*, 5. *Moral education, influence of discipline*.
- ❖ **Educational provision for the infants:**
During infancy educational provision should be made keeping in view of their psycho-physical characteristics and needs.

C. CHILDHOOD

What is childhood?

Childhood is the second stage of human development. Generally childhood comprises the period of 6

years to 12 years of age. This period is further divided into two stages early childhood from 6 to 8 years and late childhood from 9 to 12 years. The child enters the primary school at the early childhood stage. He is mentally

fit for receiving formal education. Therefore it is called the schooling age.” In this stage the child is able to read and write.

Characteristics of childhood :

Characteristics of childhood is given below :

1. Physical development : At early stage of childhood physical development of the child is not so speedy like infancy. But later childhood is a period of rapid and notable physical development. There is increase of height and weight. Motor ability increases. They love to run, jump, swim etc.

2. Intellectual development : The child is able to perform intellectual activities at this stage. He is in a position to exercise his power of memory, attention, thinking and imagination and can solve problems intelligently. During the stage of childhood the brain develops nicely. The I.Q. of a child is considerably developed at this stage.

3. Capacity to learn : Child acquires mental readiness to learn at this stage. He is able to pay attention to anything and develops interest in

reading, writing and arithmetical activities. The period childhood is fit for primary education. He shows awareness and sense of subordination to the school rules, laws and discipline. He develops a little sense of responsibility.

4. Social development : Social development takes place in a child at this stage. Primary school provides an ideal situation for socialization of a child. Class room and play ground situation train him how to feel, think, and get together with others, share joy and sorrow with them, sense of cooperation, competition, friendship etc. develop through play activities.

5. Extrovert nature : The child becomes extrovert at this stage. He wants to know everything around him very well. This inquisitiveness makes the child extrovert in nature. So he is more attracted to external situation and things. The environment of home becomes narrow for him. He like to seek pleasure by taking part in games and other external activities.

6. Gang loyalty : Children have their own groups. They play in group. They develop a strong sense of loyalty and

allegiance to the gang. They form certain rules and code of conduct of the gang and uphold them quite faithfully and obediently. They select their own leader and follow him. If anyone violates the rules of the group he/she may be expelled from the group. Gang loyalty develops democratic sense.

7. Playfulness : Playfulness is one of the important characteristics of child's life. Children like to play outside with their groups. They get joy through play. The remarkable characteristic of this period is that they like to play in group instead of individual.

8. Homo-Sexuality : Sex life of childhood is described as homo-sexual. Boys love playing with the boys and the girls love playing with the boys and the girls love playing with the girls at this stage. Every body remain quite indifferent to the opposite sex.

9. Acquired interest : In the childhood stage child develops acquired interest and sentiment towards specific subjects and fixed of

activities. The child becomes interested to music, dance, drawing, painting etc.

10. Development of creative power : During the stage of childhood, specially at the late childhood, creative ability of the child's noticed. Innate potentialities are manifested indifferent creative works. Instead of remaining as blind imitator, the child gives evidence of his creative ability in thought, feeling and action. They start expressing their native latent in arts, science etc.

Educational provision for childhood.

Child acquires mental readiness to learn at this stage. Educational provision should be made according to different characteristics of child at this stage. Importance should be given on the following points.

1. The child becomes realistic and extrovert in nature at the stage of childhood. Education should be given on real experience. So importance should be given on learning by doing.

2. Opportunities should be given on proper development of their creative power. Instead of remaining as blind imitation at the state of later childhood, the child gives evidence of his creative ability in thought, feeling and action.
3. Importance should be given on proper development of instinctive behaviour of the child.
4. Importance should be given on group play and group activities. It help them in physical and social development.
5. Preliminary health education should be given at this stage. Instruction be given to maintain neat and clean.
6. Tour programmes to different important places should be arranged to fulfill their curiosity.
7. During the childhood tendency for homo-sexuality develop. Therefore there is no problem to impart co-education at this stage.
8. Educational should be given according to the interest and will of the children. Teacher should teach their students with love and care.

Points to remember

- ❖ *The stage of childhood range from 6-12 years. It is divided into two-early childhood and late childhood.*
- ❖ *Characteristics of childhood are –*
 1. Physical development, 2. Intellectual development, 3. Capacity to learn,
 4. Social development, 5. Extrovert nature, 6. Gang loyalty, 7. Playfulness.
 8. Homo-Sexuality. 9. Acquired interest. 10. Development of creative power.
- ❖ **Educational provision for childhood :**
Educational provision should be made according to different characteristics of child at this stage.

D.ADOLESCENCE

What is adolescence?

Generally the stage of adolescence comprises between 12 years and 18 years of age. The term adolescence is derived from the word 'adolescence' which means 'to grow'. Thus the etymological meaning of the term is growth. It is period of rapid physical growth. Attainment of puberty gives the reproductive capacity and fertility of the sex gland. Hetero-sexuality is a remarkable characteristics of adolescence. Attainment of menses is a special sign of girls. It is said to be the most important and critical period of human life. According to Stanely Hallm. "Adolescence is a period of great stress and strain, storm and strife". Rapid physical, emotional social, intellectual and sexual development accompany this stage of adolescence. Dr. Earnest Jones has described the state of adolescence as a recapitulation of the stage of infancy.

Characteristics of adolescence :

Characteristics of adolescence are given below :

1.Physical development : Rapid physical growth and development takes place during the adolescence

period. Bio-chemical changes in the organism brings about fertility of the endocrine glands that effect secretion of hormone. Consequently there is rapid increase in the height and weight. The sex organs develop and public hair appear in the specific regions. Voice of boys become harsh and of girls become sweet. Respiratory, circulatory and digestive system are developed. Physical growth and development bring about the sense of masculinity and femininity in the boys and girls. In girls menstruation is the specific sign of achieving the stage of adolescence. Sometimes the girl achieves the stage of adolescence ½ years earlier than the boys.

2. Mental development : Adolescence is the stage of rapid mental development. It is the stage of intellectual development to its maximum. Thought process becomes more logical, scientific and systematic. Power of analysis and synthesis make thinking more organized and systematic. Acquired interest makes the boys and girls more selective of their learning.

3. Emotional development : During the stage of adolescence emotional

aspect of the child is well developed. Emotion of love makes them quite sensitive and blind. Emotion of anger, fear, shame and disgust make them quite explosive of the situation. Too much of emotion without the power of control may often result in emotional violence in them. They may become extremely optimistic. Pessimistic, moody, depressed, desperate, violent and delinquent.

4. Social consciousness : Adolescents are socially very conscious and active. They have the sense of social environment and social belongings. They feel that they are the important part and parcel of society. Therefore they have important role to play for the development of society. They try to lead the social forces for immediate solutions of the problems the society faces. They try to understand social customs and traditions, rules and laws, faith and belief and try to be loyal to those. A sense of patriotism also develops in their mind.

5. Moral consciousness : Adolescents have moral sense. Moral sentiment helps them to distinguish between right and wrong, truth and false, virtue and vice etc. they fight

against social injustice and inequalities. They keep faith in God.

6. Hetero-sexuality : Sex life of adolescence is known as hetero sexual. They develop strong urge to the opposite sex. The boy loves the girl and the girl loves the boy. Fertility and reproductive capacity add new strength and dimension to their sexual life.

7. Creative imagination : In adolescents, the spirit of creative imagination is very strong. Flood of sexual life at this stage gives birth to colourful imagination in mind. They are capable of making use of their creative talent through art, literature, science etc.

8. Hero-worshipping : Adolescents want to built up their own philosophy of life. They are more conscious and selective of their future life goal. They want to select an ideal hero or heroine in their life. They follow and imitate the personality of their own heroes and heroines.

9. Spirit of adventure : The spirit of adventure is very strong in the adolescent mind. Exuberance of physical energy, courage and confidence naturally develop the spirit of adventure in their mind. They

try to achieve the unachievable. Nothing is impossible for them. Strong will force make them self-confidence. They undertake adventurous activities like climbing mountain, crossing river etc. to exhibit their heroic attempt. Some of the adolescents develop thirst in mind to go to distance places.

10. Self-dependence : Self-dependence is an important characteristic of adolescence. They develop faith in their own capability of doing things. A sense of dignity, honour, freedom and democracy prevails in their thought, attitude and behaviour. They demand self respect from elders in society. They can not tolerate humiliation and disrespect from others.

Need of the adolescent

Adolescents feel some needs. Need of adolescents may be discussed as the given below :

1. Physical need : Physical growth and development is very rapid during the stage of adolescence. As a result, balanced diet and physical exercise are necessary for them. Dress should be hygienic. Instruction be give to maintain neat and clean. To keep life away from serious illness, the

physical needs are to be fulfilled properly.

2. Sex need : During the period of adolescence boy and girls feel the need of sexual satisfaction due to the maturation of sex instinct. Adequate sex education is necessary for the adolescents, so that sex instinct may be conducted through proper path.

3. Intellectual need : During the stage of adolescence, intellectual development is a rapid as emotional development. They always try to get new knowledge on new subjects or things. Everybody should take special care for the satisfaction of the intellectual need of the adolescent.

4. Need of social security : The adolescent has the need of social security. They can not live without society. They like to stay in group. They want attention and affection from the elders.

5. Need of social approval : Adolescents want recognition from the society. They want recognition in the form of praise, a prize, a gift or a renewal. They are ambitious of achieving success and getting public applause for their works.

6. Need of freedom : Adolescents need freedom of action. Therefore

guardians and teachers should not keep them always under control.

Problems of adolescence :

Adolescents are not free from problems. It is known as a period of storm and stress. Their problems remain not merely confined to them but may affect the society as a whole. Some of the vital problems of adolescence are described below :

1. Sex problem : This is one of the major problems of adolescence. During this stage the adolescents attain puberty which gives rise to physical excitement. It also develops in them anxiety, fear, sense of shame and guilt. They feel very awkward as they are not at all prepared for all this. This may lead to sexual mal-adjustment.

2. Emotional problem : Adolescents have excessive emotion but without sufficient control over them. They become more emotional when they fail to fulfill their need according to their own approaches and expectations. Violent behaviour, destructive approaches, anxiety, suspicion, jealousy, frustration, feeling of revenge etc. are the result of emotional stress of adolescents.

3. Social problem : Adolescents always want recognition from society. They want to involve themselves in the upliftment of the society. Their attitude and outlook is more progressive than the elders. The elders do not want to accept the new ideas and values of the adolescents. They remain conservative and more skeptical of changes. They insist on conservation of the old order and social heritage by their followers. This generation gap always leads to a conflict between the elders and the youngsters for which the adolescents face a problem of social adjustment.

4. Educational problem : Frustrating educational situation in the secondary school may create problems to adolescents. Unrealistic educational aim and objectives, traditional curriculum, defective verbal method of teaching and examination, repressive and rigid measures of discipline adopted in school are largely responsible for such educational frustration. Lack of education for leisure, lack of provision for vocational education add more complexity to it. They cannot fulfill the needs of the adolescents. As a result, they become

disinterested for traditional system of education.

5. Problem of leisure : Lack of leisure time education is a great problem faced by the adolescents. There is no provision of healthy recreational facilities for adolescents. They have a lot of energy in them, which is wasted and remains unused. Sometimes they may involve in unsocial and criminal activities.

6. Problem of delinquency : Delinquency is another burning problem of adolescents. Problem of leisure, problem of unemployment, moral degradation of society, use of drugs, dirty politics, easy money and black money, craze for power, terrorism and fatalism etc. have created a delinquent environment in society to which the adolescent fall an easy victim.

Educational provision for the adolescents :

Educational provision for the adolescents may be designed keeping in view of their characteristics, needs and problems. They may be summarized with the following points.

1. Keeping in view of diverse interest and aptitude of the adolescents, curriculum for secondary stage should be diversified. The principle of freedom and flexibility should be taken into consideration.
2. The adolescents by nature of their development possess a lot of physical energy. Provision should be made to organize variety of games, sports, yoga etc. in view of keeping physical health and hygiene of the youth. Physical education may be considered very essential.
3. The secondary education should be based on the principle of vocationalisation. Useful vocational subjects should be more motivated to those, who are unfit for higher education.
4. Provision should be made in the school for giving educational, vocational and personal guidance to students. It help them to choose proper path in their life.
5. Enough provision should be made for leisure time education. Children should be taught to develop good hobbies. Importance should be given on co-curricular activities in the school.

6. Adolescents are very adventurous by nature. Some of the adolescents develop under thirst in mind to go to the distance places. To fulfill this need they can be taken to excursion by the school.
7. Provision should be made for sex education, so that it may remove small illusion and misconception on sex and its related problems.
8. Social sense of friendship and cooperation and the democratic values of equality and social justice should be promoted in them through active participation in social situations.
9. Adolescents should be given leadership training. Sense of discipline, loyalty and obedience should be developing through scout, guide, N.C.C. etc.
10. The school should organize national integration camps, summer camps etc. for the development of emotional integration among the adolescents.

Points to remember

- *The stage of adolescence ranges from 12-18 years of age.*
- *Characteristics of adolescence are–*
 1. *Physical development,*
 2. *Mental development.*
 3. *Emotional development.*
 4. *Social consciousness.*
 5. *Moral consciousness.*
 6. *Hetero-Sexuality.*
 7. *Creative imagination.*
 8. *Hero-worshiping.*
 9. *Spirit of adventure,*
 10. *Self-dependence.*
- *Need of adolescents are –*
 1. *Physical need,*
 2. *Sex Need,*
 3. *Intellectual need,*
 4. *Need of social security,*
 5. *Need of freedom.*
- *Problems of adolescence are–*
 1. *Sex problem,*
 2. *Emotional problem,*
 3. *Social problem,*
 4. *Educational problem,*
 5. *Problem of leisure,*
 6. *Problem of delinquency.*
- *Educational provision for the adolescents.*
Educational provision for the adolescents may be designed keeping in view of their characteristics needs problems.

Summary

Growth and development are not the same. Growth is used in physical sense. It usually refers to the changes in the quantitative aspects like increase in size, length, height and weight. On the other hand is much broader of the human life. The four basic elements of development are— growth, maturation, experience, and social transmission. Development has some characteristics. Stages of development has been divided into four stages. Such as infancy, childhood adolescence and adulthood. There are different views regarding the time limit and stages of human development among the educationist and thinkers.

Infancy

Infancy covers the period from birth to 5 years. Infant has some psychophysical characteristics. Quick physical growth is remarkable at this stage. The child loves to play. The child feels that all things have lives like him/her. A sense of animism is developed at this stage. The child learns everything by imitating others. At the early stage he depends on others for his works. Infancy begins to learn language by imitating parent or others. The infant becomes curious towards his environment. He lives in the world of imagination. He does not realise the difference between reality and imagination. The behaviour of infant is dominated by instincts. Sexual life of infancy has been described as narcissism. The child is ego-centric.

The infant has some psycho-physical needs. Infant is totally dependant on other for his needs. The child mainly depends upon the mother for health, nutrition and hygienic condition. play is the vital need of the child. Play gives pleasure. It helps his physical, mental and emotional development. The child needs emotional security from the family. He needs love and affection from the parent and others. The child is self conscious of his own status. He wants recognition from others. He seeks freedom from all sides. The child is curious to know all things. Everybody should try to satisfy his needs.

Home is the best place for development of the child. It forms the basis of his super structure of personality. It has some influence on child's development. After birth the child comes under physical influence of home. He is

physically helpless for which home is to give all sorts of physical help and protection. An atmosphere of love and affection and close understanding of the members of family may give emotional security to the child. A child acquires all the social customs, traditions, faith, belief, religion etc. from home. To fulfill psycho-physical needs of the child improve material condition is necessary. He learns moral education by the member of family. Disciplinarian life and standard of the child is built at home. Educational provision should be made according to characteristics and needs of the infant.

Childhood

The stage of childhood ranges from 6-12 years. It is divided into two parts– early childhood and late childhood. There are many characteristics of childhood. At the early childhood, physical development is not so speedy like infancy. But later childhood is a period of rapid physical development. Childhood is the period of school age. The child acquires mental readiness to learn at this time. Social development takes place this time. Social development takes place in a child at this stage. The child becomes extrovert at this stage. He develops a strange sense of gang loyalty. Children like to play outside with their groups. Tendency of homo-sexuality develops at this stage. The child acquires interest and sentiment towards some specific subjects. During the stage of late childhood. child gives evidence of his creative ability in thought, feeling and action.

Educational provision should be made according to different characteristics of the childhood at this stage.

Adolescence

Generally the state of adolescence comprises between 12 years and 18 years. It is a period of rapid physical growth. Attainment of puberty gives the reproductive capacity and fertility of the sex gland. Hetero-sexuality is a remarkable characteristic of adolescence. Physical development and growth brings about the senses of masculinity and femininity in the boys and girls. Muscles of the body becomes mature and strong. A lot of changes is seen among the boys and girls in body structure, ability and voice. Adolescence is

the stage of rapid mental and emotional development. Thought process becomes more logical, scientific and systematic. Too much of emotion without the power of control may often result in emotional violence in them. Adolescence have social and moral consciousness. They develop strong urge to the opposite sex. Hetero-sexuality appears at this stage. In adolescents, the spirit of creative imagination is very strong. Adolescents develop a sense of hero-worshipping. They want to select an ideal hero or heroine in their life and follows him. The spirit of adventure is very strong in the adolescent mind. They becomes self dependant.

Adolescents feel some needs. For physical need balance diet, physical exercise is very important. Adolescents feel the need of sex. They feel intellectual need and always try to get new knowledge on new things. The adolescents have the need of social security. They want recognition from the society. Adolescents like freedom.

Adolescents have some problem. Sex problem, emotional problem, social problem, problem of leisure, problem of delinquency are the remarkable problems of adolescents. If the problems of adolescents can not be solved, they may involve some unsocial works. Every body should try to realized the problems of the adolescents.

Educational provision for the adolescents may be designed keeping in view of their characteristics needs and problems.

Questions

- | | |
|---|---|
| 1. What is the difference between growth and development? | 1 |
| 2. How many stages of development in human life? | 1 |
| 3. What is the name of the stage from birth to 5 years. | 1 |
| 4. What is the name of the stage between 12 to 18 years of age? | 1 |
| 5. Write three characteristics of development? | 1 |
| 6. Why childhood is called the age of schooling? | 1 |
| 7. Why do infants frequently ask questions? | 1 |
| 8. What is infancy? | 1 |
| 9. Write five characteristics of infancy. | 5 |

10. What is childhood? Write three characteristics of childhood.	2+3 = 5
11. What is adolescence? Why adolescence is called the period of storm and stress?	2 + 3 = 5
12. Mention five psycho-physical needs of infancy.	5
13. Mention five psycho-physical needs of adolescence.	5
14. Write five problems of adolescence.	5
15. What is gang loyalty?	3
16. What is hetero-sexuality?	3
17. What is animism?	3
18. Write briefly about the educational provision of infancy.	5
19. Write briefly about the educational provision of childhood.	5
20. Write briefly about the educational provision of adolescence.	5
21. Write briefly about the influence of home on child's development.	5

ACTIVITIES

1. Ask a four year old girl showing a doll and a book, which she will prefer. Examine with her answer whether there is any similarity with the characteristics of infancy.
2. In which stage you will include a ten years old boy? Ask him whether he loves to play with a boy or a girl. Examine his answer whether there is any similarity with the characteristics of development.
3. Which is your most favorable stage of development? Ask your companion about it and compare whether there is any similarity with your answer.

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CHAPTER 3

SCHOOL AND ITS ORGANISATION

CONTENTS

INTRODUCTION

(A) **Meaning of school Plant**

(B) **Physical Resources**

Land, School Building. Class room, Library, Science Laboratory, Other equipments.

(C) **Role of technology in Education**

Meaning and advantage

Computer, Internet, E-mail, CD-ROM, Website, Tele conferencing.

(D) **Teacher**

Personal and professional qualities

Role of teacher as facilitator motivator and counsellor.

(E) **Students**

(F) **Curriculum**

Definition, Types, Defects of curriculum, principles of curriculum construction.

Co-curricular Activities

Meaning, types, objectives and advantages.

(G) **Guiding agencies**

NCERT, UGC, SCERT, DIET

After reading this chapter, you would be able to

- ☛ *Understand the concept of a school plant and its organization.*
- ☛ *Know about the various resources required for a school plant.*
- ☛ *Understand about the role of technology in education.*
- ☛ *Understand about the qualities and role of teachers.*
- ☛ *Know about the different types of students.*
- ☛ *Understand the concept of curriculum and co-curricular activities and their importance.*
- ☛ *Know about the defects of our curriculum and principles of curriculum construction.*
- ☛ *Know about NCERT, UGC, SCERT, DIET and their functions.*

INTRODUCTION

School : School is the main institution of formal education. Knowledge of a wide variety of subjects is provided to the students in the school. Moreover, alongwith theoretical knowledge due emphasis is given to discipline, punctuality and formation of good character leading to all round development of students. School education may be divided into 4 stages– Pre-primary (3-6 years), Primary (6-9 years), High Secondary (10-16 years) and Higher Secondary (17-19) years.

MEANING OF SCHOOL PLANT

School plant is a very broad term which includes the school building, play ground, school furniture, other euqipment, apparatus, the human resources– the studnets, teachers and other employees. It is an integral part of learning environment. A good school plant helps in effective teaching learning process.

According to **K.G. Saiyadin** **“Ideally a school building should be planned spaciosly, functionally with pleasing arechitectural fueatures. It would stand out in the**

village or the city as something of which the local community can be proud. In fact in some educationally advanced and wealthy countries, school are housed in beautiful buildings which are not only stimulating centers of education for children but also vital centers of community life.”

From the above abservation it is clear that a nice school building and a good environment motivates the students to learn better. They spend a good deal of their time daily in the school. So, the evnironment has to be such that they feel proud to be a part of it and feel like staying there with heart and soul. A well planned shcool campus also motivates the teacher to create a healthy teaching atmosphere. A school cannot be just opened everywhere and anywhere. Some says, **“Nothing in the whole educational program is more conductive to co-operative attitude among the pupils and a love of school than an attractive and wholesome environment.”**

The school plant includes the following factors :

1. Physical resources

2. Human resources
3. Curriculum and co-curricular activities.

MEANING OF PHYSICAL RESOURCES

In order to fulfil the objectives of school education, physical resources of a good standard is an urgent requirement. Physical resources of a school implies land, school building, classroom, library and important appliance like black-board, desk-bench, play materials and other important teaching, learning materials. Infact, pupils may not be benefitted from the school authorities if they are not housed properly, no access to teaching aids, no playground and without a healthy surrounding.

PHYSICAL RESOURCES

The physical resources of a school plant include the following :

- i. Site or land
- ii. School building and play ground
- iii. Class room
- iv. Library
- v. Science Laboratory
- vi. Other equipment.

SITE OR LAND

While selecting the site or land for the establishment of a school plant following points should be kept in mind-

- a. The site should not be very close to the main road nor far from it. The surroundings should be healthy.
- b. It should have a good communication facility.
- c. The level of the area should be little raised so that water logging does not take place.
- d. The rooms should be constructed in such a way so that each one of them gets sunlight and air.
- e. The shape of land should be preferably rectangular.
- f. There should be scope for further expansion in future.
- g. It should not be near to public places like bus stand, market etc.
- h. The land should not be near stagnant pools, cattle pound or other unhealthy surroundings.
- i. It should not be near any place of entertainment like the cinema hall.
- j. There should be no cremation or burial ground near it.

- k. If possible there should be a medical dispensary or hospital near by.

SCHOOL BUILDING

- a. The school building should be planned and constructed in such a way so that it is able to serve the various academic needs and interests of the students.
- b. The school building may be constructed in I,L,T,U,E or H pattern. The E pattern is however the most suitable one.
- c. The school plant must provide all the necessary facilities needed for curricular and co-curricular activities.
- d. While constructing the school building proper ventilation, provision for light and air should be kept in mind.
- e. As far as possible, the building must be well constructed.
- f. The school building should be economical in construction and maintenance.
- g. The building should be constructed in such a way so that the teachers and students can move freely in the building.

- h. The rooms should be constructed keeping in better co-ordination of the staff and the principal.
- i. The design of the building should be simple but artistic.
- j. There should be a good provision of sanitation and supply water.
- k. There should be provision in the school building for indoor games.
- l. The school should have a playground for out games and sports.

CLASSROOM

The **Kothari commission** had remarked **“Destiny of the nation is being shaped in her classrooms”** from this very statement we can understand about the importance of class room in a school building.

- (a) The minimum size of a classroom depends upon the number of students to be accommodated.
- (b) The standard class room is a square sized one.
- (c) Light in the room should fall from the left side.
- (d) The colour of the walls should be such that it does not disturb the eyes of the students.
- (e) There should be enough windows for proper lighting and ventilation.

- (f) The teacher's table should be placed on a raised platform so that he can keep on eye on all the students.
- (g) The blackboard should be attached to the wall facing the students and on the back of the teacher's table.

LIBRARY

The Secondary Education Commission remarks, **“The library will be the hub and the centre of the intellectual and literary life of the recognized school and play the same part vis-a-vis all the other subjects. As the laboratory plays for science subjects and the workshop for technical subjects. Individual work the pursuit of group projects, many academic hobbies and co-curricular activities postulate the existence of a good, efficiently managed library”**. So— a good library is one of the essentials of a school.

Therefore, a good library should fulfill the following conditions :

- a. A library must have books for everyone— for young children, teacher and adults.
- h. The library should be equipped with comfortable furniture

shelves. charming pictures, wall hangings etc.

- c. It should have a well qualified librarian.
- d. The library should maintain some rules and regulations with regard to lending, borrowing and reading of books.
- e. The teacher should give occasional talks to pupils on the importance of extra-reading.
- f. As far as possible open shelf system should be introduced so that the students may have free access to books.
- g. The library should be made the most attentive place in the school so that it may attract the students in great number.
- h. The school library should be kept open during the vacation and long holidays.
- i. Library day may be organized once a year to popularize the school library if possible.

SCIENCE LABORATORY

Science laboratory is a must in every school.

- (a) It should be constructed at any one side of the school building, a bit far from the main building.

- (b) Provision should be made for regular supply of gas, water and electricity to the room.
- (c) Arrangements should be made to display the films and slides with the help of projector and screen.
- (d) The costly and dangerous chemicals should be kept safely inside almirah.
- (e) A laboratory assistant should be appointed to keep record of the materials and for their maintenance and care.

Resources of a school Plant

Physical	Human
Site or land	Teacher
School Building	Students
Classroom	Employees
Library	
Science Laboratory	

EQUIPMENTS :

Along with the physical resources of land, building, classroom etc. we also require some equipments that facilitate the teaching learning process. They are–

1. Furnitures for classroom as the desk, benches, teacher's table and chair etc.
2. Black boards with duster.

3. Almirah in classrooms to keep the copies of the children.
4. Almirahs and shelves for library.
5. Scientific equipments for laboratory.
6. Audio-visual aids of teaching like radio, overhead projector, tape recorder, television etc.
7. Modern schools also require computers.

ROLE OF TECHNOLOGY IN EDUCATION

Modern age is known as an age of science and technology. Today just with a push of a button we can bring whole world in our drawing rooms. Our education system has to prepare the children to be able to adjust with the technological developments taking place in the world. Some of the inventions of science has become a part and parcel of our life. Today education has to be imparted with the help of technology, the use of technology in education is known as “**Educational Technology.**” **Educational technology may be interpreted as**

- (a) to describe the use of technology in education.

Points to be remembered

Advantages of Educational Technology :

- (a) To impart instruction through technological knowledge.
- (b) To bring objectivity in the educational experiences.
- (c) To expand the nonformal education system with technological advancement.
- (d) To find solution of several educational problems with the mass communication media.
- (e) To develop the scope and quality of education with educational technology.

(b)to imply the concept of technology of education.

Technology in education is useful in making learning experience partial and therefore better related to life's goals. It can be used effectively for informal, non-formal systems of education of whatever level it may be. According to **Stolourous, use of technology in education in necessary due to**

- (a) The exploding world population.
- (b) The exponential rate at which new knowledge is being generated.
- (c) The changing science and technology of our society.

Technology includes :

- (a) Preparing pupils for learning experiences

(b) Reinforcing their values while pupils are sharing the experience.

(c) Relating the experience with the lesson and thus stimulating further learning.

Here we will precisely discuss about the use of the technologies like computers and teleconferencing in education.

COMPUTERS

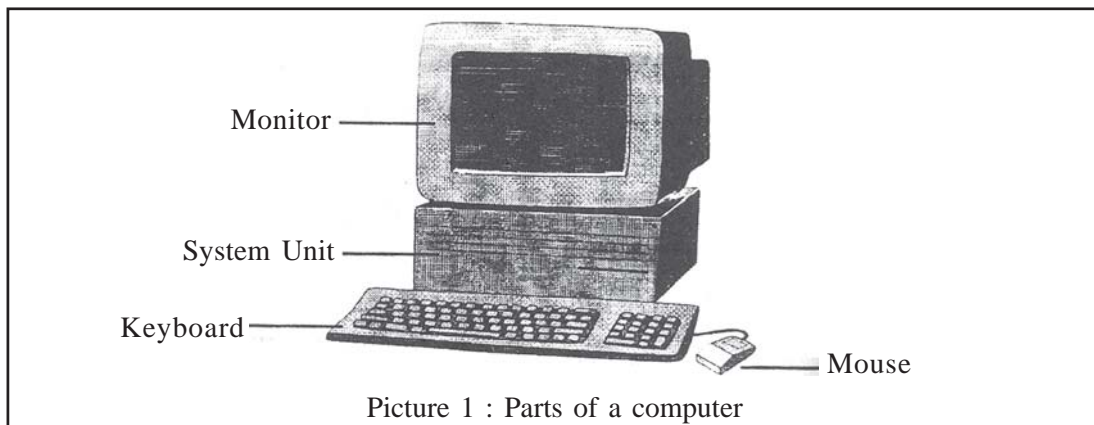
The word '**Computer**' is closely related to the word '**compute which means to determine by calculation**' and '**computing**' which means '**determining by calculation**'. From these meanings we can say that computer is a device which helps in solving problems of various subjects and various topics. It is a tool which

enables an individual to perform special tasks. The demand of computer is increasing day by day the various fields of education. It is a calculating device that can perform arithmetic and logical operations at numerous speed. Computer may be described as an electronic brain. It is a huge system composed of several related functional units which act under a common control to achieve common objectives. It is not a thinking machine but can be rightly described as a thinking man's machine.

History of Computers :

Computer was first invented by '**Charles Babbage,**' an Englishman between 1791 to 1871. In 1945 and 1956, the first generation computers were built using vacum tubes for calculations and magnetic tapes for

memory. The second generation computers developed between 1956-1963 had all the components of a modern day computer. Printers, tape storage, disk storage, memory, operating systems and stored programmes. The IBM 1401 was the most commonly used computer. In 1981. IBM introduced its personal computer (PC) for use in homes, office and schools. During 1980s there was an expansion in computer use in all arenas as clones of the IBM PC made the personal computer even more affordable. While in the past computers were owned only by government and very large corporations, the decreasing cost and size has made computers available within the reach common people. Today individuals own personal computers or PC.



Points to be remember

(a) Monitor (b) Keyboard (c) System Unit (d) Mouse (e) Printer
--

Today we have laptop computers which fit inside a briefcase and also a palmtop which fits inside a breast pocket.

Parts of a computer :

A computer consists of five basic parts. They are :

- (i) Input equipment
- (ii) Output equipment
- (iii) A memory store
- (iv) A processing unit
- (v) A control unit.

A complete computer unit consist of the following parts –

- (a) Monitor
- (b) Keyboard
- (c) System Unit
- (d) Mouse
- (e) Printer

Use of Computer :

Computers has made considerable advance in the developed countries of the world. It is of great use in the following ways :

- (i) Trade and industries as well as financial and administrative accounting have been using

computers and achieved great success.

- (ii) Scientist and research worker process their data on computers to achieve accuracy, proficiency and speed in their work.
- (iii) Computer helps the people to interact in a changed way.
- (iv) Computer establish direct contact between the individual and the machine which helps in stimulating new concepts in design and manufacture.
- (v) It can be used for scientific research in hospitals, industries etc.

Characteristics of computer :

The characteristics of computer are :

- (a) Computers are very fast.
- (b) The speed of the computer in carrying out instructions is less than a millionth of a second.
- (c) Computers are very accurate. If the input is right, they never make mistakes.
- (d) Computers work in the same manner all the time.

- (e) A computer can store large amounts of information in its memory.
- (f) If a task has to be performed several times the computer just needs to be instructed only once and it automatically completes the task.
- iv) It can assist teachers in the development of instructional materials.

Advantages of computer Aided Instruction :

- i) It is capable of individualizing the means and ends of instruction.
- ii) It is capable of doing research on teaching under controlled conditions and on various modes of teaching.
- iii) It is capable of collecting detailed records of student performance.

EDUCATIONAL VALUE OF COMPUTERS :

Computers have a great educational value. Since various types of information can be easily stored in a computer, it can help the students to get every type of guidance and answer to their questions without any fear and hesitation. They can easily get valuable information about the subject related to school curriculum. It also helps the students to immediately check the answer to his question. For example : a computer

Points to be Remembered

Education value of computer–

- (a) students can collect relevant information through information storage in a computer.
- (b) With application of computer in the educational field, students can actively engage themselves.
- (c) All levels of students exceptional, average and backward can proceed according to own pace of learning.
- (d) Students are continuously accessed through teaching machines.
- (e) Computer is liked by a teacher as due to a (CCTV) supervision becomes very easy for teacher.

may display on its screen a particular problem to be solved by the students. A student may respond by typing his answer through keyboard. If the answer is not correct, the computer instantly displays the word 'wrong'. It helps the students to develop problem solving ability and creativity among them. Exposure to computers and its application in the field of education have been found to be very useful in the following ways.

LIMITATIONS OF USING COMPUTERS IN EDUCATION :

Though computers are of great use in the field of education, there are also certain limitations in using them.

- i) Computers are very expensive.
- ii) Softwares used presently may possess some defects.
- iii) Specially trained teachers will be required to provide such instruction.
- iv) The screens being small may not be visible to the whole class.
- v) Our schools have a lack of sufficient equipment, adequate software, furnished rooms, trained staff.

INTERNET :

The internet is a network of networks. It is network of countless computers all over the world for accessing information. In a network a group of computers are connected through cable and satellites. Computers communicate with each others through protocol, which is a set of rules that govern how computers share information.

Internet was started as **ARPANET– Advanced Research Projects Administration Network** by department of defence of USA in 1969. Later in 1984, the National Science Foundation allowed schools to join the network. More and more networks joined giving birth to the Internet.

The main advantages of using internet are as follows :

- (a) Accessing information on the internet.
- (b) Reading latest news.
- (c) Listening to Music.
- (d) Sending and receiving e-mail.
- (e) Playing games.
- (f) Shopping on the internet.
- (g) Advertising on the internet.

Points to the remember

- (a) Internet is a network of networks.
- (b) The connection of computers through cable and satellites is known as network.
- (c) When network communication is established among computers it is we get internet service.
- (d) Internet was first started in USA.
- (c) For an internet connection following things are important.
 1. A computer.
 2. A communication software.
 3. A telephone line.

In order to connect to the internet we have to have

- i) a computer
- ii) a communication software and
- iii) a telephone line.

Internet has great educational advantage :

- i) The students can collect information on any topic they want to through the various websites.
- ii) It helps them to get the latest information on any subject they want to know about.
- iii) The information can be assessed from any corner of the world.

E-MAIL

The full form of E-Mails is **Electronic Mail**. Therefore, it can be well

understood that mail sent with the help of an electrical device is e-mail.

Sending letters through internet is known as e-mail. Through this system a number of computers or rather say a network of personal computers are connected with each other throughout the world. **To make use of e-mail we need :**

- i) A computer
- ii) A modem
- iii) A telephone line
- iv) Internal service provider
- v) Internet software
- vi) E-mail address of both the sender and the receiver

Functioning of e-mail :

In this system, it is very much necessary that both the sender and

receiver have their e-mail address. They also have a personal password which works as their identification mark and is known as E-Mail ID. The sender just have to type the message on the keyboard and send it to the respective e-mail address. The receiver can read it on the computer itself by opening his E-mail ID account, with the help of his password. If required he may even download the letter or message with the help of a printer.

Advantages of E-mail :

- i) E-mail is very fast compared to postal services.
- ii) No postage stamp is required.
- iii) There is no delay in sending and receiving message. It just takes a second to deliver a message.
- iv) It is a very cheap mode of communication.
- v) Through e-mail we can communicate with anyone in any part of the world.
- vi) As all the educational institutions have their own e-mail addresses, the students can communicate with them through e-mail and access answers to their queries at

a very cheap rate and also very fast.

- vii) It helps in maintaining the privacy and confidentiality of the message sent by the sender.
- viii) We can also send pictures along with sound and music to the receiver.

CD-ROM :

The full form of CD-ROM is Compact Disc-Read only memory.

In computers, CD-ROM technology is a format and system for recording, storing and retrieving electronic information on a compact disc that is read using an optical drive. A CD-ROM player or drive does not allow writing to the disc.

Characteristics of CD-ROM :

- i) Compact disc is an optical storage device that has a huge storage capacity.
- ii) The advantage of a CD-ROM is that the data present in it is less prone to damage.
- iii) It is removable and is a read only memory.
- iv) Being read only, the data present in a CD-ROM cannot be changed and is mainly used to store

programs and multimedia applications.

- v) It can help the students to store their important informations in it.

Advantages :

- i) One disc can store a large number and variety of information.
- ii) The cost of maintaining records is very low.
- iii) The text, picture, message or any other information stored can be preserved for a very long period.
- iv) It helps in easy transformation of data from one computer to another.

WEB-SITE :

A web site is a collection of web pages. A web page again is a document on the web, which many include text, images, sound and video. Every web site starts with www, which is a service of services

that are connected through hypertext. Web pages can be assessed from a web server through a browser, which helps us to read, search for and download documents, photos, sounds and video from any computer on the web.

The first page of a web site is known as a home page. Each web page has its own web address known as **Uniform Resources Locator (URL)**, Web pages can be viewed by clicking links on a web-page.

Advantage of Web-Site :

- i) Every institution can create their own website and store all the informations about their institution in their website.
- ii) Whenever anyone wants to know anything about the institution they can click on the website and access any information they want to.

Points to be remembered

- (a) Web-site is a collection of web pages.
- (b) Each webpage has its own web address.
- (c) Website starts with www.
- (d) Web pages can be assessed from a web server through a browser which helps us to draw necessary information.

- iii) Every educational institution in every part of the world have their own websites.
- iv) The students can get all information about the univeristy such as its location, courses offered, its admission procedure, its staff, its fees, scholarships offered or any other information needed by them.
- iii) It is also less expensive compared to other medium of education.
- iv) It is a flexible medium.
- v) It can be adjusted according to the number of students.
- vi) As this method is based on discussion, it creates interest in the minds of the students.
- vii) It helps the students to ask questions to the instructor and get immediate answer.
- viii)Its standard of education is also very high.
- ix) If used effectively this medium can prove to be one of the most efficient agencies of education.

TELECONFERENCING :

Teleconferencing is the best method of distance education system. This method has become very popular all over the world. In this system two or more people living at different places can engage themselves in discussion. **It is basically of three types. They are :**

- (a) Audio teleconferencing.
- (b) Video teleconferencing.
- (c) Computer teleconferencing.

Teleconferencing also has got great educative value.

- i) In distance education system there are a large number of students spread all over the country.
- ii) Teleconferencing can be of great help for such students.

Technology used in education

Computers
Internet
E-mail
Tele conferencing
Web-Site
CD-Rom

HUMAN RESOURCES :

The human resources are equally important part of a school plant. The human resources of a school includes-

- (i) Teacher
- (ii) Students
- (iii) Employees

3.4 TEACHER :

The teacher is the most important human resource required to have a complete school plant. It is the teachers who play an important role in moulding and shaping the attitudes, habits, manners, the character and the personality of the students.

Alexander the great conqueror said, **“Teachers who educate children deserve more honour than parents.”**

Zakir Hussain, former President of India said, **“They (teachers) are literally the arbiters of a nation’s destiny.”**

Sarvapalli Radhakrishnan says, **“The teacher is like the candle which light others in consuming itself.”**

Secondary Education Commission remarks **“He that governs well, leads the blind, but he that teachers gives him eyes.”**

Rabindranath Tagore said, **“If there is any profession of paramount importance, I believe it is that of the school master.”**

In **vedic prayer** it is stated that. **“The teacher is the real maker of history.”**

From the above sayings it becomes clear that the teaching profession is regarded as a very sacred profession and therefore, the teacher has a great responsibility towards moulding the character and personality of his students. The teacher has to perform manifold roles that of a facilitator, motivator as well as a counsellor. Here we will discuss about the qualities of teacher in details.

PERSONAL QUALITIES OF A TEACHER :

- (1) He should act as a friend, philosopher and guide for his students.
- (2) He should have love and respect for teaching profession.
- (3) He should have natural love of children.
- (4) He should have a loud and clear voice.
- (5) He should very punctual.
- (6) He should have a sense of humour
- (7) He should be healthy both physically and mentally.

- (8). The greatest quality that he should have is to be impartial while dealing with his students.
- (9) He should be polite and well behaved.

PROFESSIONAL QUALITIES OF A TEACHER :

Apart from the personal or inborn qualities a teacher also has to develop some professional qualities. They are—

- (i) **Mastery of the subject matter :** The teacher must have complete mastery over his own subject. Any weakness on his part will lower his prestige in the eyes of his student. He should also keep on updating his knowledge on his subject through reading journals, books or attending training courses.
- (ii) **Grasp over the method :** The teacher should adopt proper methods of teaching. This will

help him make his teaching more effective.

- (iii) **Planning and preparation :** The teacher should properly prepare himself for classroom teaching. He should plan and prepare in advance what he is going to teach in the class. A well prepared lesson helps him to overcome the feeling of nervousness and insecurity when asked any questions by the students.
- (iv) **Respect for the individuality of each child :** The teacher should understand that every child has his own individuality. He should give due importance to the feelings and views of the child.
- (v) **Knowledge of child psychology :** The teacher should have a knowledge of child psychology and also educational psychology. This will help him to understand the learning problem of the

Points to be Remember

- (a) Mastery of the subject matter.
- (b) Grasp over the method.
- (c) Respect for the individuality of each child.
- (d) Knowledge of child psychology.
- (e) Judicious use of praise and blame.

students and solve them efficiently. This knowledge will enable him to understand each and every child properly.

(vi) Skill in questioning : The teacher should be a skilled questioner. He should know the art of questioning. It is said that one who questions faultlessly, teaches effectively. Putting right type of questions helps him lead the students from dark and unknown to the bright and known.

(vii) Thirst for knowledge and experimental spirit : A teacher must refresh himself by constant reading not only about his subjects but books which touch life at every point.

(viii) Interest in co-curricular activities : The teacher should try to develop an interest in the co-curricular activities and other functions of the school.

(ix) Awareness of the rules and regulations : A teacher must keep himself fully acquainted with the rules and regulations of the school.

(x) Judicious use of praise and blame : The teacher should

praise or punish the child only whenever needed. Praise and blame are the two important weapons in the hands of the teacher and he should use them judiciously.

ROLE OF TEACHER AS FACILITATOR :

The teacher has to play a great role as a “**Learning facilitator**”. He should teach in such a way that the students can understand it easily. **As a facilitator he should take the following steps :**

- (i) The teacher should have everything ready to start class work and ensure that every child pays attention.
- (ii) The teacher should make use of a variety of teaching aids.
- (iii) He should ask questions unevently, should not repeat them and allow the students to take their time in answering them.
- (iv) He should encourage students to answer questions.
- (v) He should check the written work of the students carefully and explain them about their mistakes.

- (vi) He should use various methods of teaching and learning.
- (vii) He should provide problem situations to the students by putting though provoking questions.
- (viii) He should explain the errors of the students individually rather than before class.

TEACHER AS A MOTIVATOR :

A teacher can become a motivator of learning for his students, if he follows the following rules –

- (i) He should be able to give a clear and vivid knowledge of the subject.
- (ii) He should use a variety of teaching aids to make his teaching effective and interesting.
- (iii) He should take his classes in a special room fully equipped with the necessary material related to his subject which helps in creating the necessary type of atmosphere.
- (iv) From time to time specialist teacher should interact with the students which will broaden their outlook.
- (v) The teacher should always keep on adopting new methods of

teaching which will remove the dullness of classroom teaching.

- (vi) The same teacher should teach the students class to class which will enable him to make the best use of this previous knowledge about the students.
- (vii) The teachers should make use of instances of examples while teaching.

TEACHER AS A COUNSELLOR :

A teacher has to understand his students. He should act as a friend, philosopher and guide for his students. The students always look forward to their teachers for any type of guidance or counselling. **The teacher can adopt the following principles to act as a counsellor for his students.**

- (i) He should be acquainted with the home conditions of the child.
- (ii) Study the health records, test scores, anecdotal records etc. of each student.
- (iii) He should be able to recognize individual differences among the students.
- (iv) He should be able to develop a feeling of friendliness so that each child feels free to ask his

- assistance in personal and academic problems.
- (v) He should maintain up-to-date cumulative records of his students.
 - (vi) He should evince continued interest in assisting students to solve their problems.
 - (vii) He should share his knowledge and understanding of students with other teachers.
 - (viii) He should co-operate with other guidance workers for finding satisfactory solutions to the problems of his students.
 - (ix) He should be able to help the students to solve their personal as well as academic problems.

CHALLENGES BEFORE THE TEACHERS IN THE NEW CONTEXT :

The role of the present day teacher has become very challenging, complex and multifaceted for the following reasons :

- (i) Explosion of knowledge is taking place in all spheres of life and all disciplines. This makes the task of the teacher more challenging.
- (ii) He has to acquaint himself with the new concepts like individualised instruction, microteaching, programmed learning, de-schooling etc.
- (iii) The ever growing influence of the mass media specially the radio and television demands from the teacher that he makes a proper use of them in his teaching.
- (iv) A teacher deals with students from all the sections of the society and they have to be treated on an equal footing and given due care.
- (v) The teacher has to adopt a democratic, secular and socialist attitude towards life.
- (vi) The teacher of modern times should have a broad view of the subjects he teaches. He should not teach his subjects in isolation. He has to adopt an inter-disciplinary approach.
- (vii) The teacher must have adequate knowledge of concepts like **‘Work experience’**, **‘SUPW’**, **‘Community Service’**, etc. as they have become an integral part of the modern educational process.

Role of teacher in School :

As mentioned earlier teacher must be a friend, philosopher and guide for his students. But a good teacher is one who understands his role properly and loves his profession. To be successful in his work a teacher has to perform certain duties as mentioned below:

- (i) A teacher must plan out whatever he is going to teach before actually starting his work. He must plan his work for the whole academic year as per the number of working days and classes to be taken.
- (ii) The teacher must make a detailed plan of the lessons to be taken and the methods to be used. He must also plan out what teaching aids he will use. This must be done keeping in mind the stage of development of the students.
- (iii) The teacher must encourage the children to participate in the various co-curricular activities. This he can do by himself becoming a part of such activities.
- (iv) The teacher must try to assess the educational achievement of his students. He can do this by taking terminal tests so that the child is

fully prepared for his final examination.

- (v) A teacher must keep a record of his students' progress in every field. He must make a time to time review of such records and inform the child and his parents if any remarkable difference is found in his progress.
- (vi) A teacher must know the techniques of maintaining discipline in the institutional campus. He must try to develop internal discipline in the students by setting example himself.
- (vii) The teacher must be able to guide the children whenever he or she is in any problem. He must also act as a person and vocational counsellor for his students.
- (viii) A teacher must always maintain a good relation with the parents of his students. They must meet at regular intervals to discuss about the problems of the individual child.

Role of the Teacher in Society :

Teachers are highly respected in the society. Teaching is considered to be a noble profession. Whenever,

people are in need they usually like to come to a teacher for advise. This is more true in villages where very few people are educated. This makes a teacher responsible towards the development of a society. A teacher can help in the development of society in several ways. Some of them are given below :

- (i) A teacher must try to organise and celebrate some important days like teacher's day, children's day, Independents day etc.
- (ii) The local festivals must also celebrated and ensure the participation of the community people.
- (iii) Teacher must try to remove social superstitions and narrow-mindedness from the minds of the people.
- (iv) A teacher must organise community welfare programmes like awareness campaigns on family wel-fare drug abuse, importance of cleanliness etc.
- (v) A teacher must undertake programme of adult-education in the community.

(vi) He must invite the people from the community to share their experiences in various fields.

(vii) He must try to encourage the students to take up social service activities.

(viii) A teacher must try to educate the people about the bad effects of certain habits like smoking, gambling, drinking alcohol etc.

(ix) He must try to organise some creative activities which will help the people to use their leisure time effectively.

(x) A teacher can make use of local resources available and teach the children to make some handicrafts out of them. This will indirectly help in the economic development of the community.

3.5 STUDENTS :

Students are also a very important part of the school organization. Modern education is said to be child centric. Therefore, education has to be imparted to the children according to their needs and abilities. For this purpose, the

IQ	Classification
Above 140	Genius
120 to 140	Very Superior
110 to 120	Superior
90 to 110	Normal or average
80 to 90	Dull
70 to 80	Borderline deficiency
50 to 70	Morons
20 to 50	Imbecile
Below 25	Idiots

teacher has to know about his student.

Psychologist have remarked, "**Before teaching latin to John, a teacher should know Latin as well as John**". This means before teaching any thing to his pupils the teacher should try to understand the needs and abilities of the child.

There are different types of students, whom we can classify on the basis of their physical and mental abilities.

CLASSIFICATION ON THE BASIS OF MENTAL ABILITY :

Students can be classified on the basis of their Intelligence Quotient (IQ) as shown below :

Most of the children fall within the normal range. Our curriculum which is

framed for the schools is fit for them. But there has to be special educational facilities for children with IQ above the average and below the average. Children possessing IQ below 50 are not at all fit for any type of education.

CLASSIFICATION ON THE BASIS OF PHYSICAL ABILITY:

There are some children who are physically handicapped. They are classified as -

1. **Visually handicapped children :**
Such children may be completely blind or may possess a poor eye sight. The totally blind have to be given education in separate schools with specialized teachers but the one with poor eye sight may be given education in the normal schools but should be made to sit on the front seats.
2. **Aurally handicapped children :**
Such children may be totally or partially deaf. Arrangement should be made for their education as per their needs.
3. **Speech handicapped children :**
Such children may have disorder in voice, stammer, delayed speech

problem etc. They may be provided treatment by a speech therapist.

4. **Orthopaedically handicapped children** : Such children are physically crippled, deformed and disable children who are incapable of leading a normal life. Separate educational environment should be created for them so that they may be able to remove their physical shortcomings.

EMPLOYEES :

A school organization also needs some employees for its proper functioning.

- (i) The principal or Head Master
- (ii) The office staff
- (iii) Library assistant
- (iv) Grade IV staff such as peon, chowkidar, sweepers etc.
- (v) Canteen staff
- (vi) Cooks for hostel if any.

Points to be Remember

- (a) Visually handicapped children.
- (b) Aurally handicapped children.
- (c) Speech handicapped children.
- (d) Orthopaedically handicapped children.

CURRICULUM :

The curriculum is an integral part of the school system. It facilitates a teacher to transfer his thoughts to the student. The word '**curriculum**' is derived from the Latin word '**curre**' which means '**to run**'. Thus curriculum means **a course to be run for reaching a certain goal or destination**. In this sense, education is considered as race, with its aim as the goal, the curriculum as the course, leading to that goal. In the words of **Cunningham**,

"Curriculum is a tool in the hands of the artist (teacher) to mould his material (pupils) according to his ideals (aims and objectives) in his studio in his (school)."

This meaning of curriculum was fine for the early society. But today the concept of curriculum has changed to a great extent. In the present day world, education is considered to be a dynamic process. Nowadays, curriculum includes all the experience gained by the pupils in the school and the community under the guidance of his teachers. Ac-

cording to **O.I. Fredrick**, "modern curriculum covers all the wider areas of individual and group life. Encompasses all the meaningful and desirable activities outside the school, provided that these are planned, organized and used educationally."

DEFINITIONS OF CURRICULUM :

- i. According to **Froebel**, "Curriculum should be conceived as an epitome of rounded whole of the knowledge and experience of the human race"
- ii. **Crow and crow** states, "The curriculum includes all the learners experience , in or outside school that are included in a program which has been devised to help him develop mentally, emotionally, socially, spiritually and morally,"
- iii **Carter V goods**, in his **Dictionary of Education** defines curriculum as "a general over all plan of the content or specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification for entrance into a professional or a vocational field."

iv. **T.P Nunn** says "The curriculum should be viewed as various forms of activities that are grand expression of human spirit and that are of the greatest and most permanent signification to the wide world."

- v. **The Secondary Education Commission** report of 1952-53 stated, "Curriculum does not mean only the academic subject traditionally taught in the school but it includes the totality of experiences that pupil receives through the manifold activities that go in the school, in the class room, library, laboratory , workshop, playgrounds and in the numerous informal contacts between teachers and pupils. In this sense, the whole life of the school becomes the curriculum which can touch the life of the student at points and help in the evaluation of a balanced personality."

TYPES OF CURRICULUM :

Curriculum may be basically divided into six types as shown below:

- i) **The traditional or subject centred curriculum :** Traditional

curriculum means subject centred curriculum. Here more emphasis is laid on the subject rather than the child. It gives importance only to the intellectual development of a child and totally ignores the social and personal development of the child.

- ii) **The activity curriculum** : The curriculum which follows the principle of activity in education is known as activity curriculum. In this curriculum, the subject matter is taught with the help of some activities. **Comenius** suggested, "**whatever has to be learnt, must be learnt by doing**". This curriculum leads to the development of the constructive and creative urges of children and leads to the all round growth of their personality. It also helps in the social development of children. They do not depend upon the guidance of the teacher in every difficulty and try to solve their problems through mutual help.
- iii) **The experience curriculum** : Experience curriculum is one which gives rich and varied experiences of knowledge, skills, attitudes and ap-

preciation. The importance of this curriculum lies in the fact that teaching is a bi-polar process. Therefore, constant interaction must take place between the teacher and the taught and they must share their educational experience.

- iv) **The Undifferentiated curriculum** : Undifferentiated curriculum, means a curriculum which does not aim at the specialized study of various subject. Development of fuller and all round personality of a child is possible only through integrated experience and to bring this integration unification of subjects and activities is very important.
- v) **Basic Education curriculum** : The Basic Education Curriculum is based on Gandhiji's idea of education which implies, "**an all round drawing out of the best in child and man body, mind and spirit**". The principle of correlation is the main point of this curriculum. The framers of this curriculum believed that knowledge imparted through purposeful activity, practical experience and personal observation is real knowledge . Thus this curricu-

lum lays emphasis on the practical aspects of education. It also aims at developing a feeling of patriotism in the minds of the pupils.

- vi) **Balanced curriculum or life centred curriculum :** The type of curriculum in which all the important principles of curriculum construction are kept in mind and then activities and subjects selected for various grades of pupils, is known as a balanced curriculum. Such curriculum includes all the aspects of human activity and development and thus, caters to the needs of the individual and the society. It transmits the cultural heritage, explains the present and helps in planning the future. In this way, it enables the child to adjust himself properly to the complex and fast changing modern world.

DEFECTS OF THE PRESENT CURRICULUM :

The present curriculum or the traditional curriculum has been criticized on several grounds. Its main defects are :-

- i) **Narrowly conceived :** The present curriculum is narrowly conceived.

It gives emphasis only on subject instruction. Knowledge acquired by the children is divided into water tight compartments.

- ii) **No place for Activity :** The present curriculum does not have any place for activities in it. It is mainly based on mere reading and learning of some books. It does not give importance to the principle of '**learning by doing**' .
- iii) **Over crowded :** The present curriculum is overcrowded with subjects. It contains too many subjects to be learned by the students. It really becomes difficult for the teacher to finish the course.
- iv) **Unsuitable to children needs :** It does not cater to the various needs and capacities of the children.
- v) **Lack of provision for technical and vocational studies :** There is lack of provision for technical and vocational studies. The present curriculum does not include technical and vocational subjects which are very important to train the students to take part in the industrial and economic development of the country.

(A) Types of curriculum (Key points)

- (i) The traditional or subjects central curriculum.
- (ii) The activity curriculum
- (iii) The experience curriculum
- (iv) The undifferentiated curriculum
- (v) Basic Education Curriculum
- (vi) Balanced curriculum of life centred curriculum

- vi) **Dominated by examinations:** The present curriculum is dominated by examinations. The main aim of the students is just to memorise, pass the examination and get a job.
- vii) **Not related to life :** The present curriculum is not at all related to our life. The subjects learnt have no importance in our practical life.
- viii) **Rigid :** The present curriculum is rigid. It does not change with the changes of the world.

B. Defects of present Curriculum (Key point)

Narrowly conceived
 No place for activity
 Over Crowded
 Unsuitable to children needs
 Lack of technical & vocational studies.
 Dominated by examinations
 Not related to life
 Rigid

PRINCIPLES OF CURRICULUM CONSTRUCTION :

The following principles should be followed while constructing a curriculum-

- i) **The principle of child centredness :** Modern education is said to be child centric. Therefore, the curriculum should be constructed keeping in view the present needs, requirements and circumstances of the child. A child should be provided with meaningful experience as they are more important for a child than instruction.
- ii) **The Principle of co-relation :** The different school subjects should not be taught in water tight compartments. Fullness of experiences should be provided with maximum co-ordination and integration between curricular and co-curricular activities.

- iii) **Principle of community centredness** : A child is a future member of the society. Therefore, education should prepare the child for becoming a successful member of the community.
- iv) **Principle of flexibility** : The curriculum should be flexible and dynamic. It should change with the change of time.
- v) **Principle of utility** : Work experience, technical and vocational subjects should be included in the curriculum to make it practical and useful.
- vi) **Principle of training for leisure** : The curriculum should be so designed as to train the students for utilizing their leisure time usefully. Provisions should therefore, be made for co-curricular activities.
- vii) **Principle of comprehensiveness**: The curriculum should be comprehensive in nature so that it can meet the several needs of the individuals and the community. A wide variety of subjects should be included in it so that the students can select subjects according to their needs and abilities.

Principles of curriculum construction (Key points)

- i) The principle of child centredness
- ii) The Principle of co-relation.
- iii) Principle of community centredness.
- iv) Principle of flexibility.
- v) Principle of utility
- vi) Principle of training for leisure
- vii) Principle of comprehensiveness
- viii) Creative principle

- viii) **Creative principle** : Curriculum should also include such subjects which helps the child to develop his creative powers. The development of these powers will enable the child to modify his environment according to the need of timer.

CO-CURRICULAR ACTIVITIES :

In broad sense curriculum means the all round development of the students including the experiences acquired inside and outside the classroom. The co-curricular activities are those activities which take place outside the classroom and help in the development of the personality of the students.

The aim of education is to develop the native potentialities of a child. Education should help in the development of his personal qualities and social virtues. This can be possible only if they are provided an ideal environment in the schools. These activities also help them to express themselves. They also develop a child physically, mentally, spiritually, socially and vocationally.

Earlier, these activities in school were known as '**extra curricular**' activities. But due to its scope and educative importance, it has now been termed as "**Co-curricular activities.**"

TYPES OF CO-CURRICULAR ACTIVITIES :

The co-curricular activities may be broadly divided into the following types depending on their nature-

- i) **Physical activities** : Such activities help the students to maintain their physical health the vigour and also to acquire motor skills through various indoor and outdoor activities. They include activities like athletics, boating, swimming , outdoor games etc.
- ii) **Academic activities** : Such activities help the child to develop his intellectual abilities like thinking, reasoning and problem solving. Activities like recitation,

essay writing, debates, extempore speech etc.

- iii) **Social activities** : Such activities train the students to become socially matured. They help the students to develop desirable social qualities of co-operation, leadership, democratic values etc. Activities like NCC, Red cross, school cleanliness etc. are included in them.

Types of curriculum (Key points)

- (i) Physical activities
- (ii) Academic activities
- (iii) Social activities
- (iv) Emotional activities

- iv) **Emotional Activities** : Such activities train the students to become emotionally matured which helps in building a healthy personality. They include activities like singing, dancing, music, dramatization, art, painting, craft works etc. They are also known as artistic activities.

OBJECTIVES OF CO-CURRICULAR ACTIVITIES :

The main purpose of including co-curricular activities in the school programme are :

- | | |
|--|--|
| <ul style="list-style-type: none"> i) To make proper use of leisure time of the students. ii) To give the younger generation training for citizenship. iii) To teach the students responsibility. iv) To remove the dullness of school life and make it interesting. v) To inculcate democratic values in the students. vi) To provide scope for the outlet of special aptitudes. vii) To prepare the students for social life. viii) To make the students self-reliant, self disciplined, tolerant and sympathetic. | <ul style="list-style-type: none"> ii) These activities help to identify the native talents, potentialities and prospects of children and help in their effective development. iii) A child develops control over his emotion and train emotional maturity through them. iv) They help in the development of mental alertness, intellectual keenness and problem solving ability of the students. v) They help in removing dullness and monotony created by the traditional curriculum and can motivate the students to study better. vi) They provide freedom and spontaneity of self expression and self realization essential for good education. vii) They help in the development of moral qualities like tolerance, reverence, will force in the children. viii) They help in the development of democratic values like friendship, leadership, cooperation etc. in the children. |
|--|--|

ADVANTAGES OR VALUE OF CO-CURRICULAR ACTIVITIES :

The co-curricular activities are very important in the all round development of child. Stressing on its importance, **J.R. Shannon** says. "**The participation in co-curricular activities are more likely to produce wholesome and attractive personalities than routine class work.**" Some of the values of these activities may be outlined as stated below-

- i) They help in developing the psycho-physical health and hygiene of children and develop their manual and motor skills.

GUIDING AGENCIES :

There are some agencies which guide us about the system of education to be carried out. Some of them are the UGC, NCERT, NCTE, SCERT and DIET. We will discuss about them in details.

Point to be Remember

Important guiding agencies in the education system :

- (a) University Grants Commission (UGC)
- (b) National Council of Educational Research and Training (NCERT)
- (c) National Council of Teacher Education (NCTE)
- (d) State Council of Educational Research and Training (SCERT)
- (e) District Institution of Education and Training (DIET)

UNIVERSITY GRANTS COMMISSION (UGC) :

The Radhakrishnan Commission had recommended the establishment of a University Grants Commission, Therefore, as per this recommendation the **University Grants Commission or UGC was established in November, 1953 by a resolution of the Ministry of Education.**

It was set up with a purpose of :

- (a) Allocation and disbursement of grants to universities and
- (b) Co-ordination and maintenance of standard of education in India.

Since November 5, 1956, the commission has been accorded statutory recognition as per the recommendation of the University Grants Commission. Act passed in 1956. The commission has been reconstituted since then with a Chairman and eight other members.

The powers and functions of the commission are as follows :

"It shall be the general duty of the commission to take, in consultation with the Universities or other bodies concerned, all such steps as it may think fit for the promotion and coordination of university education and for the determination and maintenance of standards of teaching, examination and research in universities."

THE POWER AND FUNCTIONS OF U.G.C. ARE DESCRIBED AS :

- i) The commission will inquire into the financial needs of the universities.
- ii) Allocate and disburse funds to universities established or corporate by or under a Central Act for the maintenance and development of such universities.
- iii) It can recommend to any university measures necessary for the improvement of university education and advise the university upon

the action to be taken for the purpose of implementing such recommendation.

- iv) Advise the central or state government on the allocation of any grants to universities.
- v) It may recommend to any university the measures necessary for the improvement of education.
- vi) It may advise any authority if such advise is asked for the establishment of a new university.
- vii) Collect information on all such matters relating to university education in India and other countries.
- viii) It may require a university to furnish it with such information as may be needed relating to the financial position of the university.
- ix) It may perform such other functions as may be prescribed or as may be deemed necessary by the cause of higher education.
- x) The commission pays money towards the development of humanities as well as advancement of higher scientific education, research and engineering education and technology.

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (NCERT) :

The NCERT was established on 1st September, 1961 at New Delhi for

providing academic support in improving the quality of school education in India. The NCERT functions as the academic advisor to the Ministry of Human Resource Development in matters related to implementation of policies and major programmes in the field of education', particularly school education.

The general body of NCERT consists of :

- (a) Union Minister for Human Resource Development as its President.
- (b) All ministers of Education of the states and Union Territories as its members.
- (c) Some experts in the field of education as nominated members.

The NCERT functions through its six constituent units which consists of :

- (a) National Institutes of Education and
- (b) Central Institutes of Educational Technology both located at New Delhi
- (c) Four Regional Institutes of Education located at Ajmer, Bhopal, Bhubaneswar and Mysore.

The functions of the NCERT can be broadly classified as :

- (a) Research and development
- (b) In service and pre service training
- (c) Extension and dissemination work

All these works at improving the quality of school education. Its main functions therefore, are :

- i) It develops curriculum, instructional materials, methods of teaching, techniques of evaluation, teaching aids, kits and equipments and learning resources.
- ii) It organizes pre-service and in service training for teachers, teacher educators and other educational personnel.
- iii) Conducts and promotes educational research.
- iv) Disseminates improved educational techniques and practices of research findings.
- v) Acts as a clearing house for ideas and information on all matters relating to school education and teacher education.
- vi) It publishes school text books, general books for children, educational journals and research literature.
- vii) It awards scholarships to talented students at class X stage for pursuing higher studies.
- viii) Promoting the use of educational technology for the improve-

ment and expansion of education in the country.

- ix) It funds research programmes taken up by scholars both within and outside the council.
- x) It offers financial assistance to professional associations in the field of education for holding annual conferences and publishing journals.

STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT) :

The need for a comprehensive Apex Organisation for qualitative improvement of education and similar counterpart organizations at the state level had been felt by the thinkers on education of our country. As a result the NCERT was established at the National level and the SCERT at the state level.

The main objectives of setting up SCERT's at state level were :

- i) To facilitate organization of activities of different units and departments and manage their total development from one place.
- ii) To develop an inter-disciplinary approach to solve the educational problems of the state.
- iii) To ease the administration and control of educational developmental activities through an umbrella institution.

The **Working group on "Universalisation of Elementary Education"** set up by the Ministry of Education in 1977, also recommended creation of SCERT's in the states. It stated "**SCERTs as a counterpart of the NCERT at the centre should be set up in states in which it has not yet come into being**".

The SCERT was to comprise of eight Academic Departments. They are :

- i) Department of Curriculum Development.
- ii) Department of Educational Research and Examination Reform.
- iii) Department of Teacher Education.
- iv) Department of Languages Teaching.
- v) Department of Science and Mathematics.
- vi) Department of Humanities, Social Sciences and SUPW.
- vii) Department of Educational Technology.
- viii) Department of Educational and Vocational Guidance.

The functions of SCERT are as follows :

- i) To assist the government in academic policy planning covering the entire 10+2 school education.
- ii) To take active part in academic research in the field of school education.

- iii) To recommend implementation of the findings of such research in the syllabi and curriculum to the competent authority.
- iv) To act as the co-ordinating agency of the government in order to maintain uniformity harmony, integrity and stability in academic activities of the state.
- v) To keep in touch with NCERT for national policies and with various academic and professional institutions.
- vi) To assist the Board of Secondary Education and Higher Secondary Council in academic matters if and when required.

SCERT : ASSAM

The SCERT, Assam was set up on 29th March, 1985.

SCERT, Assam has the following four academic departments :

- (a) Department of Curriculum Development.
- (b) Department of Educational Research and examination Reform.
- (c) Department of Teacher Education.
- (d) Department of Science, Mathematics and Language Teaching.

These departments will take up the following activities :

- i) To undertake and assist in Researches and field studies on educational problem.

- ii) Development of Curricula and syllabi for school education and Teacher education.
- iii) Evaluation and Examination Reform.
- iv) To assist the Department of Education an educational policy planning when desired.
- v) Monitoring and clearing house activities.
- vi) Publication of research reports, instructional materials, hand books and other pedagogic materials, including magazines etc.
- vii) Organize high level seminars and conferences for teacher educators, supervisors and educational administrators.
- viii) Dissemination of ideas on emerging thoughts and practices in education.
- ix) To undertake all academic work relating to new education policy.
- x) Organize Seminars/Workshops etc. on improvement of teaching methodology.
- xi) Conduct studies on language learning & languages teaching.

DISTRICT INSTITUTE OF EDUCATION AND TRAINING (DIET) :

DIETs are district level institutes of education which provide pre-service and in-service training to the elemen-

tary school teachers and for the personnel working in non-formal and adult education.

DIETs were set up as per the guidelines of the **National Policy of Education, 1986**, which stated, "**District institutes of Education and Training will be established with the capability to organize pre-service and in-service courses for elementary school teachers and for personnel working in non-formal and adult education. As DIETs get established, sub-standard institutions will be phased out.**"

The program of Action (POA) prepared to implement the NPE stated, "**Keeping in view the central place of teacher education, NPE calls for its overhaul as the first step towards educational reorganization. Giving particular importance to the training of elementary school teachers, it is envisaged that selected institutions will be developed as District Institutes of Education and Training (DIET) both for pre-service and in-service courses of elementary school teachers and for continued education of the personnel working in non-formal and adult education program.**"

On the basis of these recommendations DIETs were established within the period of 1988-89, with a view to improving the quality of elementary education, listening the attainment of the goals of achieving the target of adult education. There are more than 400 DIETs in the country today and 337 of there are said to be operational. As envisaged in the NPE 1986 and its programme of action, district Institutions of Education and Training were established in Assam in three phases. The first phase is from 1989-1990, the second phase is from 1994-95 and the third phase is from 1995-96. Till now there are 19 DIETs established in Assam.

The DIETs are to comprise of seven academic brances.

The are as follows :

1. Pre-service Teacher Education Branch.
2. Work experience Branch.
3. District Resources Unit for Adult and Non-formal Education.
4. In service Programmes, Field Inter-action and Innovation Co-ordination Branch.
5. Curriculum, Material Development and Evaluation Branch.
6. Educational Technology Branch.
7. Planning and Management Branch.

The DIETs would have 3 main functions :

- (i) Training (ii) Resource support and (iii) Action research

A details of the activities to be undertaken under each function are stated below :

1. TRAINING :

DIETs are a provide training and orientation to be following target groups :

- (a) Elementary school teacher (both pre-service and in-service education)
- (b) Head Masters, Head of school complexes and officers of Education Department upto block level.
- (c) Instructors and supervisors of Non-formal and adult education.
- (d) Members of District Board of Education (DBE) and village Education Committees, Community leaders, youth and other volunteers who wish to work as educational activist.
- (e) Resource person who will conduct suitable programmes for the target groups mentioned in (a) and (c) above, at centers other than the DIET.

2. RESOURCE SUPPORT :

The DIETs will provide academic and resource support to the elementary and adult education

systems in the district in other ways such as –

- (a) Extension activities and interaction with the field.
- (b) Provision of services of a resource and learning centre for teachers and instructors.
- (c) Development of locality relevant materials, teaching aids, evaluation tools etc.
- (d) Serving as an evaluation centre for elementary schools and

programmes of Non-formal education or adult education.

- (e) Facilities of latest technology such as computer based learning, VCR, TV etc. will be provided at DIETs.

3. ACTION RESEARCH :

DIETs will carry out action research and experimentation to deal with specific problems of the district in achieving the objectives in the areas of elementary and adult education.

SUMMARY

- ❖ A school plant includes the school building, play round, school furniture, other equipment, apparatus, the human resources– the students, teachers and other employees.
- ❖ A good school plant helps in effective teaching learning.
- ❖ The school plant includes the physical resources, human resources and curriculum and co-curricular activities.
- ❖ Kothari Commission, ‘Destiny of a Nation is being shaped in her classroom.’
- ❖ A library is supposed to be the heart of an educational institution.
- ❖ Alexander the great conqueror said, “Teachers who educate children deserve more honour than parents.”
- ❖ A good teacher should have certain personal as well as professional qualities.
- ❖ A teacher has to play the role of a facilitator, motivator and counselor for his students.
- ❖ Present day teachers have to face many challenges in the area of knowledge explosion.

- ❖ Students are classified on the basis of their Intelligence Quotient (IQ) into genius, very superior, superior, normal, dull, borderline, deficiency, morons, imbecile, idiots etc.
- ❖ Most of the students fall in the normal range.
- ❖ Students are also classified on the basis of physical ability.
- ❖ The employees of a school includes the head master, office staff, library assistant, grade IV staff, canteen staff, cooks for hostel etc.
- ❖ The word 'curriculum' is derived from a Latin word 'currere' which means 'to run'. Thus it means a course to be run for reaching a certain goal.
- ❖ Curriculum can be divided into six types.
- ❖ There are many defects in our present curriculum.
- ❖ The educationist should follow certain principles while constructing curriculum.
- ❖ The co-curricular activities are those activities which take place outside the classroom and help in the development of the personality of the students.
- ❖ Co-curricular activities may be physical, mental and emotional.
- ❖ The co-curricular activities help in the all round development of the children.
- ❖ Technology plays a very important role in the modern day education.
- ❖ Computer is a calculating device that can perform arithmetic and logical operations at numerous speed.
- ❖ Computer was invented by Charles Babbage an Englishman.
- ❖ Computer consists of the following parts :
(a) Monitor (b) Keyboard (c) System unit (d) Mouse (e) Printer.
- ❖ Computers have great advantage in general as well as in the field of education. It is fast and very accurate.
- ❖ Internet is a network of countless computers all over the world for accessing information.
- ❖ Internet was started as ARPANET.

- ❖ Sending letters on the internet is known E-mail, C.D. Rom technology is a formal and system of the computers. It is used for recording, storing and retrieving electronic information on a compact disk that is read using an optical drive.
- ❖ A website is a collection of web pages. Every website starts with WWW. Which is a service of services connected through hypertext. Every educational institution in every part of the world have their own websites.
- ❖ Teleconferencing is a method of distance education. It is of three types :
(a) Audio (b) Video (c) Computer.
- ❖ There are some agencies which guide us about the system of education to be carried out. They are UGC, NCERT, SCERT and DIET.
- ❖ The University Grants Commission (UGC) was established in November, 1953. It is basically concerned with higher education. United Nation Educational Scientific and Cultural Organisation (UNESCO) is one of the specialized agencies of the United nations. It was established in 1945, with the consent of 43 nations. Its work has been divided into three main fields (a) Educational (b) Scientific (c) Cultural.
- ❖ National council of Educational Research and Training (NCERT) was established on 1st September, 1961 at New Delhi. Its aim is to provide academic support in improving the quality of school education in India.
- ❖ The functions of the NCERT can be broadly classified as :
(a) research and development,
(b) in services and pre service training,
(c) extension and dissemination work.
- ❖ National Council for Teacher Education (NCTE) was set up in 1973. Its head quarter is in Delhi with its regional offices at Jaipur, Bhubaneswar, Bhopal and Bangalore. It functions broadly under two heads (a) regulate the functioning of the teacher training institutes (b) to provide professional support to teachers and teacher education State Council of Educational Research and Training (SCERT) were established at the state level with the same objective of setting up NCERT at national level. It consists of eight academic departments.

- ❖ SCERT, Assam was set up on 29th March, 1985. It has four academic departments. District Institute of Education and Training (DIET) were set up as per the guideline of NPE, 1986. Diets comprise of seven academic branches.
- ❖ DIETs have 3 main functions (a) Training (b) resorurces support (c) action research.

QUESTIONS

- | | |
|--|---|
| 1. What is meant by school plant? | 1 |
| 2. Mention three physical resources required for setting up a school plant? | 3 |
| 3. Mention three human resources required for setting up a school plant? | 3 |
| 4. Mention five conditions require for selecting site or land for setting a school plant. | 5 |
| 5. Mention five conditions to be kept in mind while constructing a school building. | 5 |
| 6. Mention five conditions to be kept in mind while constructing a classroom. | 5 |
| 7. Mention five conditions to be kept in mind while constructing a science labortory. | 5 |
| 8. Mention five functions of a teacher as a facilitator. | 5 |
| 9. Mention five functions of a teacher as a motivator. | 5 |
| 10. Mention five functions of a teacher as a counselor. | 5 |
| 11. 'Destiny of a nation is being shaped in her classroom' – who said this? | 1 |
| 12. Mention five conditions of a good library? | 5 |
| 13. Mention five personal qualities of a teacher? | 5 |
| 14. Mention five professional qualities of a teacher? | 5 |
| 15. Mention five challenges that a teacher has to face while imparting education to the children in the present day world? | 5 |
| 16. Name five different types of curriculum. | 5 |
| 17. Mention five defects of the present day curriculum? | 5 |

18. Mention five principles that should be adopted while constructing the curriculum?	5
19. Mention five advantages of the co-curricular activities?	5
20. Write briefly about :[3 marks each]	
(a) The traditional or subject centred curriculum.	
(b) Activity curriculum	
(c) Experience curriculum	
(d) Undifferentiated curriculum	
(e) Basic education curriculum	
(f) Life centred curriculum	
21. From which latin word has the word curriculum been derived.	1
22. What is the meaning of the word 'currere'?	5
23. Mention five objective of co-currular activities.	5
24. Mention five physical co-currular activities.	5
25. Mention five academic co-currular activities.	5
26. Mention five social co-currular activities.	5
27. Mention five emotional co-currular activities.	5
28. Who are the visually handicapped children?	1
29. Who are the aurally handicapped children?	1
30. Who are the speech handicapped children?	1
31. Who are the orthopaedically handicapped children?	1
32. Mention five types of employees needed for the proper functioning of a school.	5
33. What is the range of IQ of the genious students?	1
34. What is the range of IQ of the very superior students?	1
35. What is the range of IQ of superior students?	1
36. What is the range of IQ of the normal or average students?	1

37. Mention five functions of each of the following : (a) UGC (b) NCERT (C) SCERT (D) DIET	[5 marks each]
38. Mention three uses of technology in education.	3
39. Mention three advantages of technology in education.	3
40. What is the meaning of the word computer?	1
41. Who invented computer?	1
42. What is a laptop computer?	1
43. What is a palmtop computer?	1
44. Mention any three basic parts of a computer?	1
45. Mention the five parts of a computer unit?	5
46. Mention any three uses of computer?	3
47. Mention three characteristics of a computer?	3
48. Mention any three advantages of computer aided instruction?	3
49. Mention any five basic educational advantages of a computer?	5
50. Mention any five limitations of using computer in education?	5
51. Mention any five advantages of using Internet?	5
52. Mention any three characteristics of E-mail?	3
53. Mention any three characteristics of CD-Rom?	3
54. Mention any three characteristics of Website?	3
55. What is the first page of a website known as?	1
56. What is the full form of URL?	1
57. Name the three types of Tele Conferencing.	3
58. Write short notes on : (a) Internet (b) Website (c) CD-ROM (d) E-mail (e) Teleconferencing	[5 marks each]

59. Write the full form of the following :	[1 marks each]
(a) NCERT (b) UGC (c) SCERT (d) DIET	
60. What is a Web-site?	1
61. What is a Web-page?	1
62. In which year was the UGC established?	1
63. In which year was the NCERT established?	1
64. Where is the head quarter of NCERT?	1
65. Mention the three broad functions of NCERT.	3
66. Mention the three main objectives of setting up of SCERT at the state level.	3
67. Mention the name of any three academic departments of the SCERT.	3
68. In which year was the SCERT, Assam set up?	1
69. Mention the name of any three academic departments of the SCERT, Assam.	3
70. Mention the name of any three academic branches of the DIET.	3
71. Mention the three main functions of the DIET.	3

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CHAPTER-4

I. PSYCHOLOGY AND EDUCATION

Contents :

- A. Concepts of psychology or what is psychology?
- B. Scope of Psychology.
- C. Branches of Psychology
- D. Relation between Education and Psychology
- E. Summary of the Chapter

Objectives

- ☞ To introduce students to evolutionary nature of the concept of psychology or what is psychology.
- ☞ To provide ideas regarding the scope of studies of psychology.
- ☞ To give knowledge on different branches of psychology and their significances.
- ☞ To make students aware about how Education and Psychology are related.
- ☞ To provide summary of the chapter.

A. Concept of psychology or what is psychology?

INTRODUCTION

We are all aware of the fact that every individual has a mind of his own. This mind regulates and controls our feelings, thinking process, emotions etc. These again inspire us to do some kind of activities or show some kind of behaviour in a particular circumstance. All our creative activities also originate from mind. But then mind and mental conditions differ from person to person. There is no "one" common mind to all human beings. Hence from ancient time scholars are curious to know about mind and its different functions. Why different individuals behave and act differently in a particular situation? Why we experience different moods? Why one can learn quickly than his fellow classmates etc. are some of the questions that very often come to our mind. The study of psychology may throw light on these and such issues. In this chapter we are going to learn about different concepts of psychology, scope of psychology, branches of psychology, relation between psychology and education etc.

My dear students, you must remember one thing that to define or give the meaning of a particular branch of study is a difficult task. Because there is continuous growth in its subject matter and scope of study. This is more true in case of psychology. Hence we get different views regarding the meaning or concept of psychology.

History of the growth of psychology is a long one. If we look to the root, we will find that the word "psychology" is derived from two Greek words namely "psyche" and "Logos". "Psyche" means soul and "Logos" means talks of, study of, or science of. Hence derivative meaning of psychology is the study of 'soul' or "Atma" of a person. But this definition can not give us base for scientific study. Because soul has no reality, it is not visible and one cannot experience it directly. Hence this concept was rejected by later psychologists.

Another concept emerged during eighteenth century. It defined psychology as the "Science or study of mind". But like the soul the ideas behind mind is also vague. Mind is a

very general terms and cannot be studied scientifically.

This concept was rejected and the idea of "study of consciousness" was put forward. Psychology as a study of consciousness was popularized by Vives, a philosopher from Spain. But this concept was also criticized on the ground that mind is not composed of the consciousness alone. It has subconscious and unconscious aspects. In fact unconscious aspect occupies the largest part of mind and has dominant role on mental functions. Hence studying consciousness without considering the role of subconscious and unconscious aspect will be a very narrow definition of psychology.

As a branch of study psychology today has evolved as a scientific discipline. It may be defined formally as a science which studies mental processes, experiences and behaviour in different contexts. It must be remembered here that although interest in psychological issues has a long history, its scientific approach is not so old. In fact it is during nineteenth century that psychologist started studying psychological factors in an organized and scientific way. They devel-

oped principles and theories regarding human behaviour by using scientific methods in their studies.

Now let us see what the three terms "mental processes", "experiences" and "behaviour" used in the formal definitions (mentioned above) implies the term "mental processes" refers to the state of consciousness or awareness of a person. It is used by him while thinking, trying to solve a problems, to learn and remember something etc. It is true that our mental processes are reflected in brainwork and it can observe by using scientific technique like brain imaging. But although brain-activities and mental process are interdependent, they are not same.

Human experience is another area of interest for the psychologists. As we know "experience" is something subjective or personal in nature. One cannot directly observe or know about the nature of experience of another person. Only the one who gets the experience, is aware of it. It has been pointed out that our experiences are influenced by our external as well as internal conditions. For example when we are in a jovial mood we do

not feel or experience discomfort even in a dirty surrounding. Hence to understand the nature of experience the psychologist are required to analyze some complex internal and external condition of a person.

Psychology is most commonly defined as the "science behaviour". The term "behaviour" refers to the responses or reactions, we make or activities we do in a particular situation. However in psychological studies the term behaviour is very broadly used. It includes physical, motor, mental, intellectual and emotional activities. Physical and motor functions we do like engaging in various activities, running, jumping, walking etc. mental and intellectual activities like thinking, reasoning, perceiving, remembering etc. emotional experience like feeling angry, feeling of pleasure and pain etc. are included within the range of the term 'behaviour'.

Behaviour may be simple or complex, short lived or enduring. For example when a bright light falls in your eyes, you blink. It is a simple and short lived response or behaviour against the stimuli (bright light). But when you are appearing in a

competitive examination for three to four hours your behaviour or response is complex as well as enduring. Again there are some behaviour that can be observed directly or outwardly. They are called overt behaviour like the behaviour of a foot baller in field. There are others which are internal and called covert like behaviour of a chess player while facing difficult situation in the game. However we should remember that all kinds of behaviour whether simple or complex, overt or covert are triggered by some stimulation of the environment.

Thus the concept of psychology evolved from the study of soul to the present status. We may conclude by quoting Wood worth in this regard. "First psychology lost its soul. Then it lost its mind, then its lost consciousness, it still has behaviour of a kind."

B. SCOPE OF PSYCHOLOGY

Psychology as a discipline or branch of knowledge has it's own scope of study. Basically it studies human experiences and behaviour. It primarily looks into the factors that

cause behaviour and then makes efforts to study the nature of behaviour.

Human experiences are characterized by three factors. Every experience involves these three characteristics namely cognition or knowing aspects, conation or doing aspect and affection or feeling aspects. Some psychologist put emphasis on one of it and some on the other. For example psychologist like Herbert and Hume gave emphasis on cognition while considering scope of psychology. They believed cognition always leads to conation and affection. On the other the famous psychologist McDougall consideres that cognition cannot origin without conation. Conation or doing aspects comes first, cognition or knowledge follows it. The feeling aspects is also

result of conation, was the believe of McDougall and his followers. However majority of the psychologist are of the opinion that our conscious mind has three important aspects-cognition conation affection and psychology must take these into consideration while dealing with it's scope.

Besides consciousness unconscius aspects of the mind also plays an important role in determining human experience and behavior. Hence today psychology put emphasis on the role of both consciousness and unconsciousness in human life. Many new findings are coming out on mental processes and behaviour. Consequently the scope of studying psychology has also becoming wider day by day.

Points to Remember

1. There is gradual evolution in definition of psychology.
2. It was first defined as science of soul.
3. During 18th century psychology was defined as the science of mind.
4. Modern and formal definition that is accepted today is that it is a science which studies mental processes, experiences and behaviour in deferent contexts.

C. BRANCHES OF PSYCHOLOGY

Psychology as discipline has evolved tremendously in recent years. Consequently several fields of specialization have emerged in the study of psychology. Some of the important branches of psychology are mentioned (in brief) below :-

(a) Biological psychology : This branch of psychology gives importance on the relation between behaviour and men's biological system. According to it there is relation between behaviour and physical organs like the brain, the nervous system, the immune system and genetics.

(b) Developmental psychology : From conception in mother's womb till death an individual passes through different ages and stages of development in life. Developmental psychology is that branch which studies physical, social and psychological changes that take place in different ages and stages of human life. In past developmental psychology put emphasis on study of child and adolescent development. But today it is showing increasing interest on adult and aged development too.

(c) Social psychology : This branch of psychology tries to find out how human beings are affected by various social environment and how people influence on the environment. Psychologist belonging to this group are interested in issues like interpersonal relationship, co-operation, obedience to leaders, prejudice, aggression, social motivation, intergroup relation etc.

(d) Environmental Psychology : It tries to study the influence of physical environmental condition such as temperature, pollution, humidity, natural disaster etc. on human behaviour. Psychologist of this branch are recently showing interest in taking up research on environmental topics like waste disposal, energy conservation, water management, population explosion etc.

(e) Clinical psychology : This branch deals with causes, treatment and prevention of various psychological disorders in individuals. One of its related area is psychological counselling which helps individual in solving the challenges and problems of their individual life.

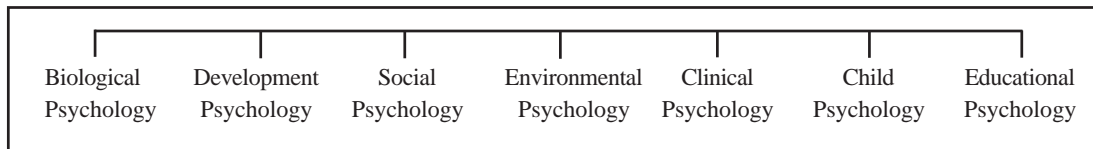
(f) Child psychology : As the name implies this branch of psychology deals with behavioural development of children. The “child is a child before he is a man” said Rousseau– The great French philosopher. Hence a child is different from an adult. His ideas, intelligence, aspirations, emotions etc. are also quite different from that of an adult. Child psychology therefore composes of a full-fledged branch of science and it is very important from educational point of view.

(g) Educational psychology : Educational psychology is regarded as

the most important and most popular branch of applied psychology. The learner is the focal point of view of educational psychology. Education wants to modify behaviour of children. Educational psychology helps in understanding behaviour and solving all psychological problems related to behaviour. It also studies developmental characteristics of children from infancy to adolescence and help educators in developing proper curriculum and new methods of teaching. Thus Educational Psychology studies all the mental processes that have significance in the field of education.

Important Branches of Psychology

Psychology



(iv) RELATION BETWEEN EDUCATION AND PSYCHOLOGY :

As disciplines or subject of studies Education and Psychology are distinctly different from one another. They have separate aims and objectives. Education is called a normative

science which deals mainly with ideas and principles that should be followed in the field of education. Psychology on the other hand is a positive science. It deals with what is visible, audible and tangible in behaviour shown by one in a particular situation.

It uses methods like direct observation and experimentation to understand behaviour, instead of speculation.

But inspite of these differences education and psychology cannot be called contradictory to each other. They are complementary and there is relation and interdependence between these two disciplines. The following observations will help you to realize the relation between Education and Psychology.

It is true that Philosophy helps in evolving aims, purposes and theories of education. But it is the Psychology that guides in achieving the set goals. Again many theories of Education are also based on psychological findings.

Every educational system has it's own theories or principles and ideals. But for effective practices it has to take help of psychology. The knowledge of psychological process like learning memory, motivation, intelligence, personality etc. of the learner is very necessary in the field of education.

Classroom teaching is a very important component of an educational system. The knowledge of psychol-

ogy particularly regarding the learner's intelligence and interest at various stages of development are very necessary for effective teaching. Psychology has also helped a lot in innovating many new methods of teaching like project method, learning by doing method etc. At the same time these techniques and methods of teaching have become useful and popular only because of education.

The other two areas where educators need help of psychology, are developing technique of motivation and skill in communication. Teaching will miserably fail if students are not motivated and if there is lack of proper communication between educators and educands. To understand, and apply motivation and communicative skill a person dealing with education must acquire knowledge about these psychological processes.

In modern educational system, guidance and counselling are also becoming unavoidable. They are necessary not only for students but for parents as well. With the help of guidance and counselling various academical, behavioural and social problems can be solved easily. As we

all know without the knowledge of psychology, guidance and counseling are not practicable.

As mentioned above Education and Psychology are interrelated and interdependent. There are several areas where Psychology is influenced by Education. The development of Psychology as a branch of study would have remained static without the help of Education. It is through Education that psychological findings have become popular throughout the

globe. Education has contributed a lot towards widening the scope of psychology. Besides it has also helped in developing several new branches of psychology like Child psychology, Educational psychology, psychology of the physically and mentally challenged etc.

Thus it may be observed that there is sustaining relationship between Education and Psychology and one cannot survive as a branch of study without the help of the other.

POINTS TO BE REMEMBER

1. As subjects of study Education and Psychology are distinctly different.
2. Both of them have different objectives and scope of studies.
3. In spite of the difference there is integral relationship between Education and Psychology.
4. Psychology helps Education in its practices and in solving different problems related to school environment and students. Education also helps psychology in actual application of psychological findings.
5. Education and psychology are not contradictory but complementary to each other.

SUMMARY OF THE CHAPTER

It is difficult to define psychology with a single definition. Because the subject has grown tremendously from its original meaning which stated that psychology is the science of soul. Psychologists of modern era give a broad

meaning to psychology by declaring it as a science which studies mental processes, experiences and behaviour in different contexts. However it is mostly popularly defined as the “science of behaviour”. The term behaviour refers to all kinds responses or reactions that an individual shows to any kind stimulus within a given situation.

Psychology as a branch of study has it’s own scope of studies. It primarily studies the causes that leads to behaviour and also nature of behaviour in human being. It also takes into account human experiences and as every experiences involves cognition, conation and affection, psychology also study about them. Consciousness play an important role on human activities and behaviours. But at the same time the role of unconscious aspect of the mind cannot be neglected. Infact it determines some very important behaviour and action of out life. Hence psychology includes both consciousness and unconscious aspects of mind in its scope of study. The scope of psychology is becoming wider day by day.

Psychology has many branches. Some important and useful branches are Biological psychology, Developmental psychology, Social psychology, Environmental psychology, Clinical psychology, Child psychology, Educational psychology etc.

Although as disciplines Psychology and Education differs from one another, they are not contradictory. There is relation and interdependence between the two.

EXERCISE

Dear students, try to answer the following long and short questions including objective tests which will help you in reviewing the chapter–

Essay type questions :

1. Give a brief account of the conceptual development of Psychology as a branch of study.
2. Of the various concepts of Psychology which one you support and why?

3. Write a brief note on the scope of psychology.
4. “Education and Psychology are not contradictory but complementary”. Explain the statement.

Short type questions :

1. State how the word psychology has originated?
2. Why psychology is called the science of behaviour.
3. Scope of psychology is very wide. –Justify the statement.
4. Name two important branches psychology and explain them.

Objective type questions :

Answer the following by writing “True” or “False” against each statement.

1. Psychology is a positive science.
2. Psychology can determine aims of education.
3. Psychology is called the science of behaviour.
4. Child psychology studies adolescent’s behaviour.
5. Laboratory experiments are not necessary in studying psychology.
6. Psychology is a means, not an end in education.
7. Psychology and education have similar aims and objectives.

Write whether the following statements are correct or incorrect.

1. Psychology determines the theories of education.
2. Education and psychology are contradictory one another.
3. Psychology studies only conscious aspect of mind.
4. Psychology is not related to classroom environment.
5. Psychology does not study abnormal behaviour.
6. The scope of psychology is narrow.

Match the following (by drawing lines)

Column I	Column II
(1) Psychology helps in	(1)As the study of mind.
(2) Educational psychology is a branch of	(2)Understanding psychological Disordering

(3) Clinical psychology helps in	(3) Subjective in nature
(4) During 18 th century psychology was defined	(4) Applied psychology
(5) Human experience is	(5) Counselling students.

ACTIVITY

The teacher may ask the students to imagine that they are involved in some activities. He or she should give the names of the activities and ask students to write down or speak out the mental processes involved in each of them.

For Example :

- (a) Learning to solve a mathematical problems
- (b) Playing cricket.
- (c) Watching an interesting picture or movie.
- (d) While answering examination paper.
- (e) Viewing T.V. etc.

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CHAPTER-4

II. EDUCATIONAL PSYCHOLOGY AND ITS SIGNIFICANCE

Contents :

- A. What is Educational Psychology.
- B. Scope of Educational Psychology.
- C. Methods of Educational Psychology.
- D. Significance of educational psychology- Why a teacher should study psychology?
- E. Difference between Psychology and Educational Psychology.
- F. Summary.

Objectives

After reading this chapter you would be able to-

- ☞ Explain the concept of educational psychology.
- ☞ Make students aware of the scope of educational psychology.
- ☞ Give students ideas regarding some important methods used in educational psychology.
- ☞ Explain the importance and need of educational psychology and why an effective teacher must have knowledge of psychology.
- ☞ Point out some differences between psychology and educational psychology as branches of studies.

Introduction

Dear students- as you have learnt already, Psychology as a discipline has many branches. Educational psychology is one very important and useful branch that growing popular day by day. It is called an applied branch of psychology. Because it is used to study the problems and behaviour of students in academic or learning situation. Psychology has developed many new theories, principles and laws related to learning. Educational psychology apply them in classroom teaching learning process to make it more effective.

In this chapter you will learn about what is educational psychology, scope of educational psychology, It's methods of study, why a teacher should study psychology and difference between psychology and educational psychology.

A. What is educational psychology?

Educational psychology is a branch of applied psychology. Heinrich Pestatuzzi, a Swiss school teacher is regarded as the father of educational psychology.

As obvious Educational psychology consists of two words-education

and psychology. Therefore it can be understood that it is that branch of psychology which is very much related to education. It has developed as a result of application of theories and other findings of general psychology to the field of education. It is hence described as psychology of learning. Learning as we all know is the main purpose of education. It is a very complex process and involves not only physical factors, but also mental and emotional factors. Besides these learning is also associated with individual difference among learners in their inherited abilities, interests, creativity etc. Educational psychology, studies all these factors that affect on teaching learning process.

It is not possible to define educational psychology with one single definition. Different writers have given different views. Below a few important definitions of educational psychology are mentioned-

While speaking about educational psychology Peter Sandiford gave a broad definition by saying that- "Its subject matter is the behaviour of human being undergoing the process of education. Generally speaking it

deals with the young rather than the old, and with the learning situation of the schools rather than, those of the wider environment'. ('Educational psychology' – by P. Sandiford).

Skinner gave two definitions–

- (i) 'Educational psychology covers the entire range of behaviour and personality as related to education.'
- (ii) 'Educational psychology is that branch of psychology which deals with teaching and learning.'

Dear students, from what have been discussed above regarding educational psychology, it may be said that educational psychology is a branch of applied psychology which studies human behaviour as related to education and also various mental aspects of learners that affect on teaching learning process.

B. SCOPE OF EDUCATIONAL PSYCHOLOGY :

Educational psychology is a broad subject. It combines two fields- education and psychology. It wants to study human behaviour scientifically in relation to education or in educational situations. However as human behaviour is unpredictable educational psychology cannot be called an exact science like natural sciences. It is a branch of scientific study that primarily deals with "how" "when" and "what" of education.

Consequently the scope of educational psychology is quite wide.

Now let us see what is meant by "scope of study". Scope of study of any discipline refers to areas that are included in its periphery. Considered widely educational psychology has four major areas of study namely the

POINTS TO BE REMEMBERE

1. Educational psychology is a branch of Applied psychology.
2. It studies behaviour of learners in teaching-learning situations.
3. Educational psychology also takes into account various mental and emotional aspects of students and how they influence over teaching learning process.

learner, the learning process, teaching and learning situation and evaluation. Some of the distinct areas with which Educational Psychology is concerned in particular are mentioned below.

(a) The learner : Learner is the focal point in any system of education. Every learner has his unique qualities and potentialities. These always affect on his academic achievements. Hence one important area of Educational Psychology is to study, the nature and behaviour of the learners in relation to education.

(b) Individual difference : Every child by his very birth carries genetic qualities in him. Children admitted in a school differ from one another in these qualities. These qualities include both physical and mental abilities. Even in twins some amount of difference can be observed. So it is a universal truth that children differ from one another in their inherited as well as acquired qualities. The qualities have great impact upon their behaviour and academic performance. Hence educational psychology must consider the individual differences in children so that educational programmes can be developed according to the needs of learners.

(c) Role of environment : Education is regarded as a tri-polar process. These three poles are teachers, students and the environment. Different forces of the environment (home environment, classroom environment, social environment) influence to a great extent upon students and their academic lives. Educational psychology studies these environmental aspects and help in creating congenial atmosphere for both students and teachers.

(d) Developmental characteristics :

In human life there are broadly four stages of development-infancy, childhood, adolescence and adulthood. In the opinion of majority of the psychologists, infancy covers the period from birth to five years of age, childhood from six to twelve, adolescence from thirteen to eighteen and the rest of life is called adulthood. There are peculiar developmental characteristics at these different stages of growth. Educational psychology studies about these characteristics and their impact on teaching-learning process. However it

must be remembered that Educational psychology is more interested in the early part of life than adulthood.

(e) To study the unconscious mind :

Our mind has three aspects-conscious subconscious and unconscious. It is true that conscious mind is more responsible for our learning and other kinds of activities. But at the same time the role of unconscious mind cannot be neglected. Because researchers are of opinion that the root cause of many unpredictable behaviour of learners

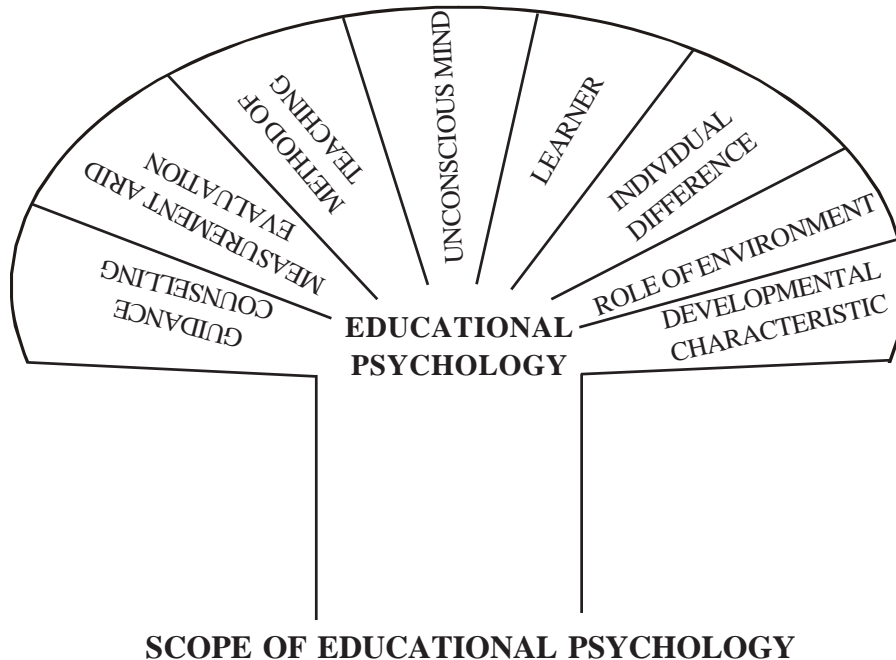
lies in the unconscious mind. Hence Educational psychology includes study of unconscious mind in its scope.

(f) Methods of teaching/learning :

Various methods are adopted to teach or learn by students and teachers. One important area of educational psychology is to study principles and usefulness underlying these methods and helps in recognizing and using the most effective ones.

(g) Measurement and evaluation:

Scientific measurement of mental abilities of children and evaluation of their academic achievement is one of



the important area of study of Educational psychology. Because both these aspects are very essential in the field of education.

(h) Guidance and counselling :

These are relatively modern concepts and are becoming increasingly popular in the field of education. Because of the usefulness of guidance and counselling for not only students and teachers but parents as well, educational psychology encompasses these areas in its scope.

C. METHODS OF EDUCATIONAL PSYCHOLOGY :

Educational psychology being a branch of applied psychology is regarded as a positive science. It wants to study different mental processes and behaviour of individual. But to study human nature and behaviour is a difficult and complicated task. Educational Psychologists have adopted various means and methods for this purpose. A few of them are mentioned below.

(a) The method of introspection :

The dictionary meaning of introspection is ‘‘to examine ones own feeling and thoughts’’. This is a very old

method adopted by ancient psychologists. According to this method human experience in most of the psycho-physical situation is alike. For example the feeling of joy, sorrow, in one individual is same with others. Therefore in order to know about psychological processes of others, it is necessary to study one’s own mind and feelings. Introspective method therefore asserts that to study another’s mind and mental status one should study his own mind. Because it can provide reliable knowledge about another person’s mental conditions.

Merits of introspective method :

- (i) William James the famous psychologist emphasized on the merit of introspective method. According to him ‘‘Introspective observation is what we have to rely on first and foremost and always.’’
- (ii) Introspective method is said to be the easiest and readily available method of educational psychology.
- (iii) This method has a long historical basis. It encouraged psychologists to do research in the

field of educational psychology and consequently to develop objective methods to study human nature.

Limitations

- (i) It has been pointed out that mental condition never remain static. It changes very frequently. When we try to introspect somebody, our mental state may disappear by the time we start the process.
- (ii) Introspection is criticized as a subjective method. The data acquired through it are not at all reliable.
- (iii) This method cannot be applied on children and mentally sick persons. Again it requires very skilled and trained persons for successful introspection.

(b) The method of observation :

To observe means to notice something. Observation is an important method of educational psychology. An individual's mental condition is expressed through his outside behaviour. This method therefore, tries to study human nature by observing expressed behaviour in various situations. As there is relation between mind and body, whatever is

felt mentally is expressed through physical behaviour. So if, planned and systematic observation is done, the data acquired may be reliable. However the observer must be a well trained person in the field.

There are different types of observation like— direct and indirect, natural and artificial, planned and unplanned, participant and non-participant. As the name implies, in case of direct observation an individual's behaviour is directly observed. In case of indirect it is not directly observed by the observer. In natural observation the subject is observed in the natural way in normal setting whereas in case of artificial, an artificial environment is created. Planned observation follows a preplanned procedure. In unplanned the procedure is opposite. In participant observation the observer becomes a part of the group he wants to observe, whereas in nonparticipant the observer is independent and does not belong to the group to be observed.

Merits :

- (i) Observation is a very useful method and is used very frequently in research work.

- (ii) It is a scientific technique and the results of observations may be verified and relied upon.
- (iii) With the help of observation method behavioural problems in children can be located and preventive measures can be adopted.

Demerits :

- (i) Through observation method only overt behaviour can be assessed. But outside behaviour cannot always provide correct mental picture of an individual.
- (ii) It has been pointed out that interpretation of findings in this method may not be always reliable. Because it is influenced by subjectivity of the observer.
- (iii) Critics of this method are of opinion that observation method generally suffers from two kinds of errors. One is sampling error which may occur due to mistake in selecting the condition to be observed. The other is called observers error which may happen due to lack of knowledge and efficiency of the observer regarding the process of observation.

(c) Clinical method : This is an important method used primarily to study behavioural problems of maladjusted individual. Maladjustment is generally expressed through anti-social behaviour, emotional disturbances, backwardness in learning etc. The main purpose of clinical method is to study a particular individuals problem as a “case” or ‘cases’ of a group, to detect problems and suggest remedial measures.

Merits :

- (i) This method studies the “case” very intensively. It takes into account the past and present history of the “case” to study behavioural problems.
- (ii) While going to unearth the cause of maladjustment, clinical method also studies unconscious behaviour along with overt behaviour.
- (iii) This method is regarded as a scientific one and it yields reliable results.

Demerits :

- (i) The preparation for a case study in clinical method is a difficult one. The psychologist has to take

account of past and present history of the 'case' (individual to be studied). On the other hand the informations given by the case himself on his parents and friends may not be always correct.

- (ii) It is difficult to observe complex behaviours and provide useful remedies.
- (iii) The interpretation of case study may not always be correct. Because it is influenced by the observer's own intuition and theoretical knowledge.

(d) Experimental Method : Experimental method is one of the popular method of studying educational psychology. Establishment of psychological laboratories have made it more popular. In this method observation is done in the controlled environment of a laboratory. Experiments on mental abilities of an individual can be conducted scientifically through this method. For example Thorndike made experiments on human learning by taking cats as subjects. The procedure for experimentation is planned properly and hence results are reliable.

Merits :

- (i) Experimental methods is regarded as the most systematic procedure of study.
- (ii) As the experiments are conducted in controlled condition, the informations received through it are reliable.
- (iii) Today computers are used for data analysis. Hence complex study can be undertaken and findings are also more accurate.

Demerits :

- (i) One important criticism against experimental method is that experiments are done on artificially determined environments. But in actual life of the subject situation is quite different.
- (ii) Data acquired through this method cannot through light on the total behaviour of a child. Because behaviour is the result of interaction between the individual and the environments that effect on him.
- (iii) Experimental methods cannot be used very often. Because it is time consuming and costly as well.

(e) Case study method : The technique of case study has been borrowed from medical science. It is the study of an individual case. Generally this method is applied on children having learning difficulties, behavioural problems, emotional disturbances etc. The child having any of such problems is studied carefully. His past history, important events of life etc. which may cause psychological problems are studied thoroughly. Beside these information regarding present physical, mental, emotional, social status of the person are also considered. Collection of these data in a scientific way and their proper analysis can give insight into the cause of disorders and help in curing them. Not only in case of problematic children, case study method is also used in study of gifted children.

Merits :

- (i) It is useful and popular method used for studying peculiar or special characteristics in individuals.
- (ii) Case study method helps the educators and psychologist to understand the root cause of

behavioural problems and consequent maladjustment in individuals.

- (iii) This method helps teacher to adopt remedial measure and rehabilitation of problems children.

Demerits :

- (i) Case history or case study is a lengthy and time consuming method.
- (ii) The findings are always not reliable because it depends upon the informations provided by the person himself or his near and dear one, which may not be authentic.
- (iii) Collection of data and their analysis is difficult.

(f) Sociometric method : As the term implies it is a method to study social behaviour of individuals. The nature of social relationship that exist psychiatrist between individuals or among the members of a particular group can be determined with the help of this method. If applied by the teacher he can know about psycho-social relationship among his student. For this purpose preparation of a questionnaire is necessary. The

questions should be prepared in such a way that the answer reflect one's psycho-social relation with other members of the class. For example questions like– who is your best friend in the class? Whom will you vote to be leader in the class, etc. may be included in the questionnaire. By analyzing the answer the teacher will be able to point out the most popular student and the most unpopular one of the class. This technique was first developed in 1946 by Dr. J. L. Moreno and Hellen Jennings to determine the degree to which individuals are accepted in a group.

Merits :

- (i) It is a popular and useful method to study social relationship.
- (ii) Through the findings of sociometrics one may know about what other members feel or think about the subject.
- (iii) The findings may be presented simply and graphically without any difficulty.

Demerits

- (i) This method can be used to test only one trait of personality– that is sociability.

- (ii) The process of collection of data is not very scientific as it is done through collection of opinion of member of particular group.
- (iii) The response of a child regarding some questions may be affected by peer pressur.

(g) Project method : Human mind is a complex one. Beside conscious and subconscious, we have unconscious mind too. Many thoughts and ideas are kept repressed in this mind which affect greatly on our behaviour. Therefore it is necessary to know about unconsciousness and its repressed elements. Projective method or projective technique is a psycho-analytical method applied for this purpose. Through it, efforts are made by psychologists to externalize, the inner causes of disturbing behaviours. There are several types of projective testing materials like, inkblot test developed bu swiss psychiatrist Herman Rorschach in 1921, Free association test, Drawing and Painting, Sentence completion, Thematic Apperception test etc.

Merits

- (i) The test materials presented in projective method and

- externalize the inner thoughts and ideas of an individual.
- (ii) The method is very helpful for psychiatrist for diagnosing and treating mental disorders.
- (iii) Through projective methods a complete picture of the personality of a person can be obtained.

Demerits

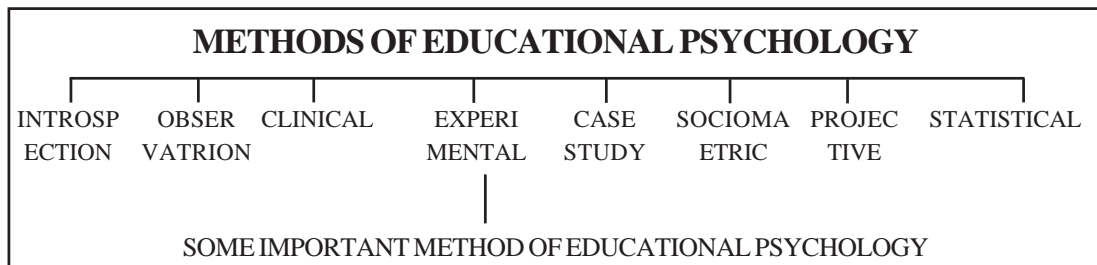
- (i) It has been pointed out that for a school counsellor projective method is not very useful as they are very subjective.
- (ii) A common classroom teacher cannot apply it. Because for administration of projective tests special training is necessary.
- (iii) This method is time consuming and interpretation of the response is very difficult.

(h) Statistical Method : Psychologists today apply different methods to measure various aspects of mental

abilities and their affect on human behaviour. In order to analyse various test results statistical methods are applied. For example when intelligence test is applied on an individual to measure his level of intelligence, the results are expressed in terms of marks or scores. In order to analyse them some statistical methods are followed. The marks or scores are tabulated and represented through graphs. Generally in psychological experiments the statistical methods used are – measures of central tendency, variability, percentile, coefficient of correlation etc.

Merits :

- (i) One very important merit of this method is that scientific procedures are always followed in every step of any statistical method.
- (ii) Statistical method is reliable one. Its findings can be expressed in terms of numbers and score.



Demerits

- (i) The application of statistical method is not easy. A common teacher is not capable of applying it, as this method requires specially trained personnel.
- (ii) The correctness of finding of mental measurement depends upon proper application of statistical method in the analysis stage. Hence if proper statistical method is not applied the findings may be wrong and hence harmful for the subject.

D.SIGNIFICANCE OF EDUCATIONAL PSYCHOLOGY

Dear students, you have learnt that educational psychology is an applied branch of general psychology. It studies behaviour of learners in teaching learning situation. It also studies different problems related to learning. Hence it is sometimes called as psychology of learning. Educational psychology is a very broad subject and takes into account not only physical, mental, emotional aspects of the child but also other factors like environment, teachers,

courses of study etc that have some impact on teaching learning process.

It may be remembered that in earlier days in the needs and abilities of learner were not recognized in the field of education. It was the teacher who dominated the field. J.J Rousseau the French philosopher and educationist first emphasized that education should be given according to the nature of the child in his famous classic 'Emile'. He was followed by Heinrich Pestalozzi a swiss school teacher. When he tried to psychologise education, very few heeded him. But gradually the need of applying psychological principle in education was realized by educationists. Today all concerned with education realize that besides having knowledge of his subject the teacher must know his students nature that is his psychological abilities.

Modern education has become child centered. Psychological principles are applied in all aspects of education like method of teaching, curriculum construction, evaluation etc. The significance or importance of

psychology in education is recognized by one and all concerned with educating the child.

There are three important factors in the field of education-The learner, the learning process and the learning situation. Educational psychology has contributed a lot towards understanding the nature of the child. Learning process is always associated with the learner. Educational psychology explains how learning process takes place and what are the psychological factors that contribute towards effective learning. Learning situation includes the environment of the school, the classroom environment and all other variables that helps in the process of learning. Educational psychology helps in creating as well as recognizing the suitable learning situation for successful teaching.

Thus educational psychology has significant contribution in the field of education. Long back in 1943 R.A. Davis emphasized the significance by stating that 'psychology has made a distinct contribution to education through its analysis of pupil potentialities and differences as revealed by

means of various types of psychological tests. It has contributed directly to the knowledge of pupils growth and maturation during the school years.' ('Essentials of educational psychology' by J.C. Aggarwal).

Why a Teacher should study Psychology?

The need and importance of studying psychology by the teacher was emphasized long back by John Adam. In his words- The verbs of teaching governs two accusatives, one the person and another the thing- the teacher taught John Latin, the teacher should know John as well as Latin. From earlier days till modern age psychologists and educationist are discussing on why a teacher should have knowledge on psychology. For example G.M. Blair (1947) pointed out that "Modern teacher, if he is to succeed with his work should be specialist who understands children, how they grow, develop, learn and adjust. Thus a teacher besides teaching has manifold responsibilities and without the knowledge of psychology he cannot possibly fulfill these

obligations. In the following discussion we shall point out the need of studying psychology by a teacher.

(i) **To understand the child :** One important aim of education is to develop the potentialities of the child and to mould him in a proper way. In order to realize this aim understanding the nature of the child, the various factors affecting on it etc. are very essential. The knowledge of psychology helps a teacher in this regard.

(i) **To realize individual difference :** No two children are alike. Even in case of twins some difference may be observed. There is difference among children in their physical characteristics as well as mental abilities. They are different in learning abilities. Some are gifted with high intelligence and high learning ability whereas some are backward. A teacher has to deal with students having such individual differences and knowledge of psychology helps him or her greatly in recognizing and dealing with such individual differences.

(iii) **To understand developmental characteristics :** A child or a learner always develops through four stages of development like infancy, childhood, adolescence and maturity. Every stage has its own characteristics and they affect greatly on teaching learning process. In order to be a successful teacher one must have knowledge about various physical, mental, emotional, social, developmental characteristics of children. Psychology will help him in acquiring such knowledge and treat children accordingly.

(iv) **To acquire knowledge on Mental Health:** Besides physical health everyone of us have a mental health. So is the case with both teacher and taught, and it has great impact on teaching-learning process. Hence the teacher must have knowledge on what is mental health, what causes are responsible for mental illness and maladjustment etc. To understand all these and deal with children effectively a teacher must study psychology.

- (v) **To understand the learning process:** Learning process is a complex one. Education primarily depends upon effective learning process. Educational psychology deals with the nature of learning, laws of learning, types of learning for different age groups etc. In order to understand the problems related to learning process the teacher must study psychology.
- (vi) **To know about classroom situation:** It is within the classroom environment that interaction and learning take place. For successful teaching and learning the classroom situation must be congenial. Knowledge of psychology helps a teacher of develop a congenial atmosphere in the classroom situation.
- (vii) **Helps to develop suitable method of teaching :** Appropriate methods of teaching for different age groups are a must in any educational system. Infact success of teaching depends to a large extent on methods of teaching. In order to know about various new methods of teaching and also to evolve new methods a teacher must study psychology.
- (viii) **Understanding group Dynamics :** Within a classroom there is a group of students having a group or collective mind. Their behaviour as a group may be quite different from individual behaviour of a learner. Group dynamics refers to the operations that work within the group. Today most importance is given on group dynamics and it affects on classroom teaching. A teacher has to study psychology in order to understand the complexity of group behaviour and how it affects on both teachers and students.
- (ix) **To have first hand knowledge on measurement and evaluation :** Measurement of mental faculties is very necessary to understand the potentiality of the learner and provide him education accordingly. Psychology has developed many such new tests and procedures to measure mental ability. The teacher can have a first hand knowledge about their use in education by

going through psychological books. Evaluation of students' academic achievement is another important duty of a teacher. Knowledge of psychology will help him greatly in constructing scientific tools for effect evaluation.

E. Difference between Psychology and Educational Psychology :

Although educational psychology is an applied branch of psychology, these two branches of studies are not exactly alike. There are certain differences between psychology and educational psychology :

(i) The area of study of psychology is wider than educational

psychology. Both of them study behaviour. But psychology takes into account human behaviour in general whereas educational psychology is concerned with behaviour of the learners.

(ii) General psychology is theoretical in nature and it discusses principle and laws of human nature in general. But educational psychology being an applied one is more interested in the application of the psychological principle in education.

(iii) As a branch of study psychology is a very old one, whereas educational psychology is comparatively a new discipline.

Points of Remember

1. There are several methods of educational psychology and each has its merits and demerits.
2. The need and importance of educational psychology as a branch of study has been recognized by all.
3. Education and psychology are interrelated and interdependent. One is incomplete without the other.
4. To be a successful teacher one must have knowledge of psychology.
5. The study of psychology helps a teacher to understand the nature of the learners, his developmental characteristics, to realize individual differences, to evolve methods of teaching, to develop evaluation tools etc.

SUMMARY OF THE CHAPTER

Educational psychology is a branch of applied psychology. Pestalozzi is regarded as the father of Educational psychology. This branch has developed as a result of application of psychological knowledge in the field of education. There are many definitions on educational psychology. Peter Sandiford gave a comprehensive definition by saying that– “Its subject matter is the behaviour of human beings undergoing the process of education. Generally speaking it deals with the young rather than the old, and with the learning situation of the school rather than those of the wider environment”. Educational psychology thus, is a branch of applied psychology which studies human behaviour as related to education and also various mental processes that affect on teaching-learning process.

Scope of educational psychology is a wide one. It takes in its fold several factors like the learners, individual difference among learners, their development characteristics, effect of environment on education, study of unconscious mind, methods of teaching-learning, evaluation, guidance and counselling etc.

There are many methods of study of educational psychology. A few of them are introspection, observation, clinical method, experimental method, case study method, sociometric method, projective techniques etc. Each of these method has its own advantages and disadvantages.

Today educational psychology is regarded as an important branch of applied psychology. It has contributed a lot towards development of all aspects of education. There are three important factors in education. The learner, the learning processes and the learning situation. Educational psychology has contributed gently towards understanding the nature of the learner, the learning process and the various environmental conditions that may affect on education of the child.

A teacher has a pivotal role to play in any system of education. Hence it

is very essential that he should have knowledge on psychology. The knowledge of psychology helps a teacher to understand his students better, to develop proper methods of teaching, to create suitable environment for teaching, to be aware of group dynamics etc.

There are certain differences between psychology and educational psychology. To point out a few, scope of psychology is wider than educational psychology, general psychology is more theoretical, whereas educational psychology is practical, psychology is an old branch of study, but educational psychology is comparatively new.

EXERCISE

Dear students, try to answer the following questions. These exercises will help you in understanding the concepts better.

1. Essay type or long questions :

- (a) What is educational psychology? How does it differ from general psychology?
- (b) Give one important definition of educational psychology? Explain the need or significance of studying psychology in education.
- (c) Discuss the areas of study of educational psychology?
- (d) Discuss in brief why study of psychology is essential for a teacher?
- (e) Discuss a few methods of educational psychology.

2. Short Question :

(a) Explaining the statements:

- (i) Educational psychology is positive science.
- (ii) Educational psychology is an applied branch of psychology.
- (iii) Educational psychology does not study behaviour of adults.
- (iv) Write in brief on the method of Observation.

- (v) Why Pestalozzi is called the father of educational psychology.
- (vi) Give the advantages and disadvantages of Projective techniques.
- (vii) Briefly explain why a teacher should know both about the learner and the subject of study.

3. Objective test

(a) Fill up the blanks with appropriate words :

- (i) The Person who first tried to psychologise education was
- (ii) Modern education is child
- (iii) Educational psychology is an Science.
- (iv) The aims of education is not determined by
- (v) The great classic on Education by Rousseau is

(b) Find out whether the following statements are true or false :

- (i) The aim of education is determined not by psychology but by philosophy.
- (ii) Projective methods are used to study external behaviour of a child.
- (iii) Social behaviour can be studied by Experimental method.
- (iv) Educational psychology studies human behaviour of all ages.
- (v) Education and psychology are complementary to each other.

ACTIVITY

The teacher should ask students to imagine themselves as teachers. He or she may ask them to write down or speak on how to solve the following classroom problems:

- (a) A student always plays mischief in class.
- (b) A boy steals a Tiffin box of his mates.
- (c) There is one who never completes assignments.
- (d) One boy always comes late to school.

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CHAPTER-5

PHYSICAL BASIS OR MENTAL LIFE

Contents :

Introduction

- A. Central nervous system
- B. Receptors and Effectors
- C. Knowing process-Sensation, Perception and Conception

Objective

After reading this lesson you will be able to

- ☞ Know the cell as a unit of nervous system
- ☞ Know the structure and function of a neuron
- ☞ Describe nervous system, its different parts and functions.
- ☞ Describe brain and spinal cord and their related control of behaviour.
- ☞ Describe endocrine gland and exocrine gland and their functions.
- ☞ Understand the relation between mind and body.
- ☞ Know the importance of receptors and effectors.
- ☞ Understand conceptual development of children.

Introduction

We often say 'face is the index of mind'. 'Mind revealed in behaviour' etc. Though we have not seen mind, we can understand the mind through our behaviour and also day to day experiences. We live in a wonderful world to experiences. When we become physically weak, then we become mentally also weak. Mental life depends on physical life or we can say on the condition of body. We must have some idea about physical and mental life.

From the above discussion it is clear that there is a close relation between mind and body. For example, if stomach is not agreeable to eat food, mind is also not willing to accept it. If eyes and ears are not functioning properly, mind remains inactive to receive knowledge of the world. If we suffer from disease like typhoid, dysentery, jaundice etc. or nervous ability, our mind becomes inactive and weak. Likewise, when minds becomes full of anxiety, fear and sorrow, our digestive system, blood circulation system etc. are not functioning properly. These are the few examples to clarify the close

relationship between mind and body. The physiotherapists uphold their opinion that owing to the physical problems, mental diseases occur. If we want to know the state of mind at different situation of life we must have knowledge about the systems and parts of body.

We often wonder how do we behave in a variety of ways. Sometimes we are angry, we become worried or stressful. We feel happy, sometimes sad. Sometimes we take long time to perform an act and sometimes we act very quickly. We know that our bodily movements and actions are controlled by our nervous system, which is the most important part of our body from the standpoint of mind. The nervous system acts like an engine in the automobile that controls every movement and speed of the vehicle. Similarly all our actions and bodily movements are controlled by our nervous system. It is a complex network of nerves that controls the working of the organs of the whole body.

Now let us have some idea about cell and neurons before going to have knowledge about central nervous system.

The cell as a basic unit of life :

The life of all living organisms is based on the working of the cells. Our body is made up of cell which can be seen through microscope only. An example will make you clear. You have seen a building which is constructed by bricks. As the brick is the



Fig 1 : The Cell

smallest unit in a building, so is a cell the smallest unit in a human body. Each living organism whether it be a plant, animal or human being, is made up of these small units, called cells. All cells contain a fluid called cytoplasm and a nucleus which are enclosed by a cell membrane. The life of all living beings is based on the working of the cells. That is why the cells are called the smallest unit of life.

The Neurons : The structural unit of the nervous system is the neuron. Under a microscope neuron may ap-

pear as a tiny irregular or rounded block with one or more threads extending from it. (The teacher should draw it on the black board). The threads are the nerve fibres and the block is the cell body that serves as local headquarters for the nerve unit. Now it is clear that the cells that compose the nervous system are known as neurons glia. Only the neurons or nerve cells transmit information (impulse) from one location to another. They collect information from environment by means of receptors (sense organs). They also store information in terms of memory and generate our behaviour. Neurons make half of the volume of the brain. Glia cells are the other half of the nervous system.

There are three main structure of neurons. They are –

- (a) Soma or the cell body
- (b) The dendrites
- (c) The axon.

The soma or the cell body is the largest part of the neuron. It regulates and controls the metabolism and maintenance of the entire cell. It also receives impulses from other neurons. The dendrites are the branches or tiny fibres extending out from the cell

body. Their role is to receive messages through electrical impulses from the sense organs or adjacent neurons and carry them to the cell body.

The axon is a long fibre that leads away from the cell body. The axons send signals to the dendrites of the other neurons or to muscles and glands. The axons make the neural pathway in the central nervous system. It does not carry sensation like pain and cold.

Types of neurons :

There are three types of neurons. They are sensory neurons, motor neurons and inter neurons.

1. Sensory Neurons : Sensory neurons or receptor neuron bring information into the nervous system. Such information is brought through sense organs. Sensory neurons collect messages from inside and outside the body and carry them to the brain and the spinal cord. They help in the processes of sensation and perception.

2. Motor Neurons : The motor neurons carry messages from the brain and the spinal cord to the muscles and the glands. The involuntary actions like breathing, eye blinking, and yawning are controlled by the motor neurons.

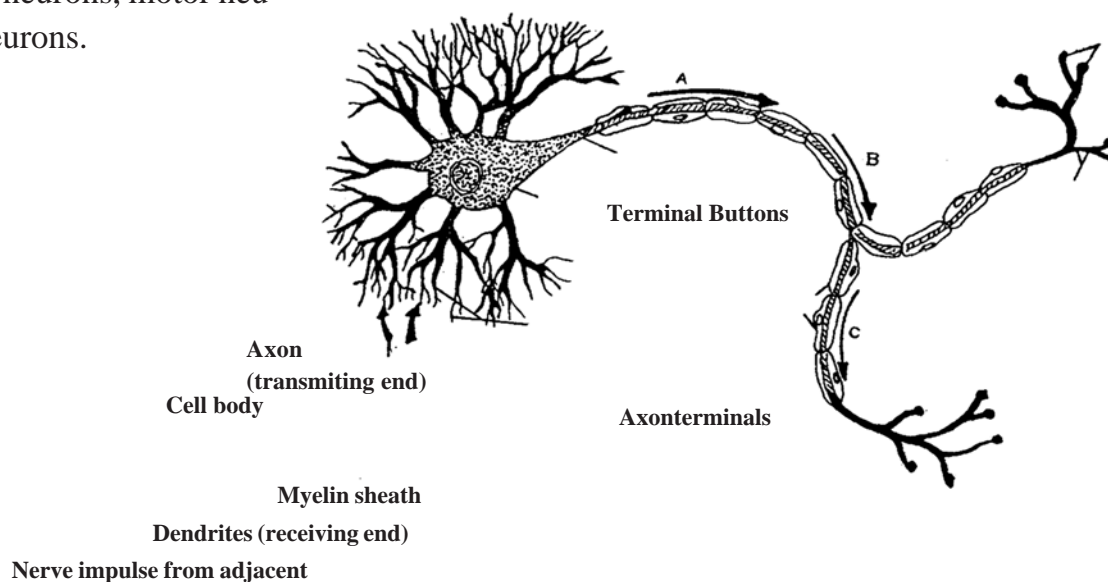


Fig 2 : Structure of a Neuron

3. The inter-neurons : The inter neurons or associated neurons carry messages from one neuron to another. Their specific role is to carry signal in the form of memories and thoughts.

Synapse : The place where the end branches of axons and the ramifications of dendrites are connected is called a synapse. This connection is very intimate and complex. The synapse again has only 'One way traffic' and the nervous currents pass only through the axons to the dendrites.

Irritability and Conduction : These are the main function of neurons. After having the stimulus neurons play the role of passing the sensations or impulses to other parts of the body.

Nervous system : The most important part of the body from the stand point of mind is the nervous system that controls the working of the whole body. It is made up billions of neurons. It plays a significant and dominant role in coordinating the activities of every structure in the body.

Every bit of our behaviour our observation, perception and learning to a great extent, is controlled by our nervous system. Physical, intellectual and emotional developments are also influenced by the nervous system.

Division of Nervous System :

The nervous system is divided into three parts. The are (a) Peripheral nervous system, (b) Autonomic nervous system and (c) Central nervous system.

(a) Peripheral nervous system : It consists of the group of nervous which transmit information between the central nervous system and the body. It carries nerve impulses to and from the body. Most of the dozen pairs of nerves are both sensory and motor.

Peripheral nervous system consists of a network of nerves which helps in passing the sense impressions to the central nervous system and also in conveying the orders of the central nervous system to the muscles. Because of these two functions, the peripheral nervous system and

ACTIVITY-1

1. Draw the central Nervous System and demarcate the main parts.
2. Draw a picture of the human brain and show there in its major parts.

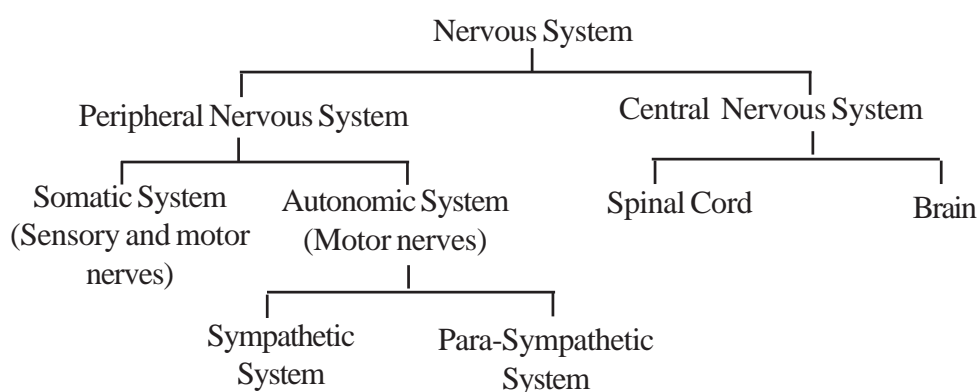
subdivided into two parts. The somatic system and automatic system.

In somatic system sensory and motor nerves are found running to and fro the sense receptors, muscles and the surface of the body. The autonomic system is only a motor system which consists of a number of motor nerves leading from the central nervous system for serving the blood vessels, heart glands, and other internal organs of the body and regulating processes such as respiration, digestion, gland functioning and emotion.

(b) Autonomic nervous system : The autonomic nervous systems has also two divisions – the sympathetic system and the para-sympathetic system. The sympathetic system is

connected to the spinal cord on either side and carries messages to the muscles and glands particularly in stress situations to prepare for an emergency to get ready to act quickly. In such situations it causes adrenal glands to start producing hormones. As a result our blood pressure and heart rate is suddenly increased, pupils are enlarged, digestion is stopped and several bodily changes are marked.

The para-sympathetic system is connected to the brain and the lower portion of the spinal cord. It becomes active when are calm and relaxed. It directs the body organs to return to a normal state after the stress situation has passed. Instead of their opposite nature, sympathetic and para-sympa-



thetic division of the autonomic nervous system work in close cooperation for maintaining the balance of the body functioning.

(c) The central nervous system :

The central nervous system is the most important part of the nervous system which lies within the body case formed by skull and spine. It consists of the brain and the spinal cord.

The spinal cord : It is that part of the central nervous system which lies within backbone. It is the rope like structure or rough cylindrical structure made up of bundles of long, nearly round nerves within the case of backbone. It has two major components :

- (a) Grey matter
- (b) White matter

The inside of the spinal cord has a greyish colour, while outside of the spinal cord white matter is found which contains axons, transmit information to and from the brain.

The function of the spinal cord is two fold. Firstly, it works as a

communication from and to the brain. Secondly, it works as a organ for effective reflex action or automatic reactions. The spinal cord directly performs reflex actions, it connects the brain with different parts of the body and some motor activities like walking, running etc. are controlled by the spinal cord.

Examples :

The action like closing of the eyelids when something enters the eyes and withdrawal of the hand when something too hot or cold touches it are known as reflex actions. These actions or acts are almost automatic in nature. They are controlled by our spinal cord. Normally the messages or images caught through the sensory nerves (afferent nerves) are conveyed to the brain by the spinal cord and brain takes the decision. But sometimes when an immediate action is needed, then the spinal cord gets the emergency signal and instead of receiving orders from the brain, it

ACTIVITY-2

1. Draw the diagram of the human eye and show there in its major parts.
2. Draw a diagram of different ductless glands of a human body.
3. Draw a flow chart of effectors.

directs the motor nerves to run the muscles for necessary movement.

In short, spinal cord performs the following important functions :

1. It connects the lower part of the brain with the sensory and motor nerves from the body.
2. It is responsible for behaviour known as reflex action. A reflex action is an automatic, involuntary response triggered by a stimulus. It mediates complex reflexion like blinking, knee jerk, sneezing, coughing etc. damage to the spinal cord leads to paralysis.

The brain : The brain is the most important part of the body. It is the control room of the huge complicated telephone system of the body. In other words, the brain is the primary components of the nervous system, occupying the cranial cavity. It is surrounded by the skull of protection. Our brain appears something like a walnut which contains at least 15 billion nerve cells (neurons). The brain weighs an average of three pounds (1.4 kg). it comprises about 97% of the entire central nervous system and is connected to the upper end of the spinal cord.

Different parts of Brain :

The brain is divided into two halves

- a. The left cerebral hemisphere
- b. The right cerebral hemisphere.

Each hemisphere is covered with a grey matter which is called cerebral cortex. It is the physiological seat of all higher mental control. The two halves of the brain resemble the halves of a walnut and receive sensory information and control the muscular action of the opposite side to the body. The left hemisphere is dominant for language, logic and complex motor behaviour. The right hemisphere is specialized for visual, spatial and other non linguistic functions such as visual imaginary, facial identification etc.

The brain mainly consists of following parts.

1. The fore brain
2. Mid brain
3. The hind brain.

1. The fore brain : The forebrain is at the very top of the brain. The main structures of the forebrain are thalamus, the hypothalamus and the cerebrum.

The thalamus seems to exercise some control over the automatic

nervous system and plays a role in the control of sleep and alertness.

The hypothalamus lies below the thalamus. It plays an important role in influencing all kinds of emotional as well as motivational behaviour. It also exerts control over the activities of the pituitary gland which is located just below it.

The cerebrum lies at the very top of the brain. It is the most complex and largest part of the brain. It extends from the eyebrows to the middle of the skull. The cerebrum is covered by a thick layer of tightly packed neurons or grey matter called the cerebral cortex. The grey matter is more in the intelligent persons and mentally difficult ones. Different areas of the cerebral cortex like sensory projection areas, motor projection areas, and association areas, etc. are found responsible for different functions. The cerebral cortex has the abilities to perform the functions of storing sensory information, controlling body movements coordinating all information that comes to the brain and regulating highly cognitive functions such as thinking, reasoning and problem solving. The cerebrum exer-

cises control over almost all bodily and mental processes. Special areas have been mapped out in the cerebrum as the seat of sight, hearing, speech etc.

2. Medulla oblongata : The medulla oblongata lies nearest to the spinal cord. It controls breathing and many important reflexes which helps us maintain our upright postures. It regulates processes like digestion, respiration and circulation which are necessary for the preservation of life. It also controls the heart rate.

3. Pons Varolli : The pons Varolli connects the cerebrum and the mid-brain with the cerebellum. It assists the breathing transmitting impulses from the cerebellum to the higher brain regions and in coordinating the activities of both sides of the brain.

4. The hind brain (cerebellum) : The hindbrain consists of the cerebellum, the pons varolli and the medulla oblongata. It is situated behind and beneath the forebrain.

The cerebellum is located behind and beneath the cerebrum. It is responsible for keeping the body balanced, making motor coordination in

various movements, behaviours like dancing, typing, and playing the Piano depend on this structure. It maintains the equilibrium of the body and keeps it erect.

5. The midbrain : The midbrain is a short of bridge connecting the fore-brain and the hindbrain. It is concerned with the relaying of messages related to hearing and sight to higher brain centers.

The brain has two basic functions :

1. Cognitive functions (learning, memory, thinking etc.)
2. The regulation of physiology of the body.

The Response Mechanisms :

Receptors and Effectors

Receptors :

Receptor in our body represents those organs or sensory mechanisms or sense organs that help us to receive or respond to different stimuli. Each of the sense organs are selectively sensitive to different stimuli. Depending upon the nature of the stimuli received, the receptor system of our body are divided into two categories– external and internal receptors.

External receptors : External receptors helps us to make contact with the outer world, eg, eyes, ears, nose, tongue and skin.

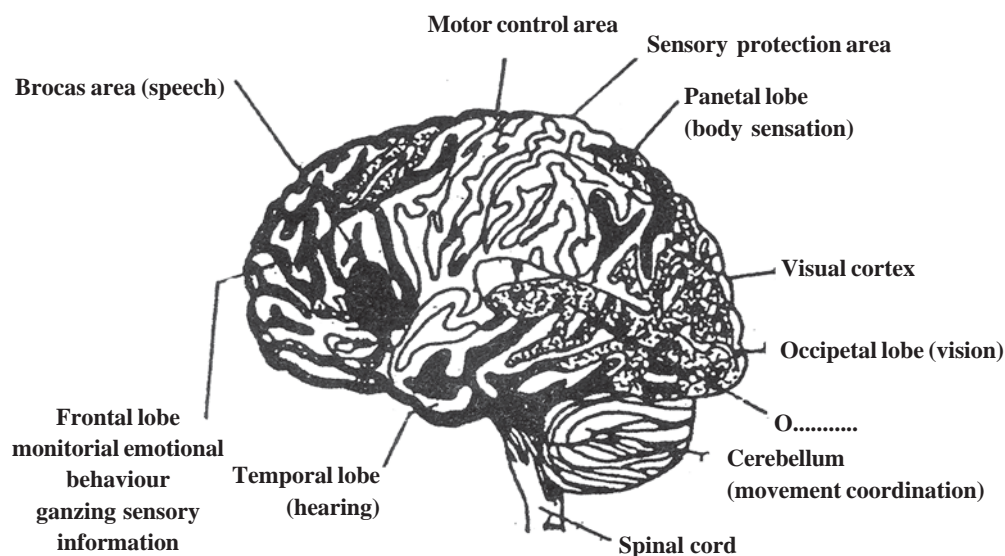


Fig 2 : Picture of a brain

Internal receptors : These receptors are associated with the internal stimuli present in our body. They are responsible for giving us feeling of pain, hunger etc. and also help us in our bodily posture, maintaining balance of the body and control over muscles.

Receptors have been classified in another way in the form of visual receptors (skin) thermal, pain and chemical receptors (tongue).

Each of the receptors or sense organs are selectively sensitive to different stimuli. For example, visual sense organs (eye) is sensitive to

ACTIVITY-3

1. Make a chart mentioning the differences between sensation and perception.
2. Draw some picture of Optical Illusion.
3. Make some model for training the concept of numbers.

POINT TO REMEMBER: NERVOUS SYSTEM

1. The human body has mainly three parts Receptors, Effectors and Nervous System.
2. The Nervous system controls the working of the whole body.
3. The nervous system is divided into three parts :
 - (a) Peripheral nervous system
 - (b) Autonomic nervous system
 - (c) Central Nervous System
4. The peripheral nervous system be is subdivided into two parts. The Somatic system and automatic system.
5. The autonomic nervous system have also two division– the Sympathetic system and the Para sympathetic.
6. The central nervous system, the most important part of the nervous system consists of the brain and spinal cord.
7. The spinal cord works as a communication from and to the brain.
8. It works as an organ for effective reflex action or automatic reactions.
9. The main parts of brain are :
Cerebrum, Medulla oblongata, Pons Varolle, Cerebellum, and the midbrain.
10. The brain has two basic functions cognitive functions and the regulation of physiology of body.

receive light energy, audition (ear) to sound energy, tactile (skin) to pressure and touch and so on. These sense organs are (eg. Eyes, ears, nose and skin) our windows to collect information from the external world. Montessori said that senses are the gateways of our knowledge. We depend primarily on vision, hearing, and cutaneous senses to collect information about the world around us.

The sense of vision (eye) : The eye is the receptor which is responsible for our sensation of sight. It supplies the greatest amount of information about the external world. The stimulus for the sense of vision (eye) is light. It occupies the first place of among the sense organs. That is why it is called the queen of receptors. The eyes receive light reflected from objects in the external world and from this we perceive colour, shape texture, depth etc.

Let us now have a brief description of various sense organs.

Sense Organs	Stimulus	Quality	Feeling
1. Eye	Light	Sight of Colour	Size
2. Ear	Sound	Hearing	Voice/noise
3. Nose	Gaseous	Swell	Good swell/bad swell
4. Tongue	Fluid stuff	Taste	Sweet/Sour etc.
5. Skin	Pressure	Touch	Hard/Soft

Structure of the eye :

Each human eye is about 25 mm in diameter and weighs about 7gm. It consists of four major parts :

1. Cornea
2. The iris
3. The lens and
4. The retina

Cornea : Light enters the eye through cornea, the transparent covering in

front of the eye. The cornea is sharply curved and focus the light on the retina. Behind the cornea is the pupil that appears black. It is a black circle, lies in the centre of the iris. The amount of light that enters the pupil is regulated by the iris, a ring of muscle whose pigmentation gives the eye its colour (brown, blue, etc.)

The iris : It is a ring of muscle whose pigmentation give the eye its colour like brown, blue, etc. It regulates the size of the pupil and can be compared to the adjustable diaphragm of the camera. The iris contracts and dilates reflexively and regulates the amount of light that reaches the retina.

The lens : There is also a transparent structure called lens. After passing through the pupil, the light pass through the lens. In dim light the muscles of the iris relax, causing the

The retina : Retina is the most important part of the eye. It is a thin and delicate inner layer containing the photo receptors and an elaborate network of interconnecting nerve tissues. The retina contains the receptor cells that respond to light. Each retina contains approximately 120 million rods and 6 million cones located near the back of retina. Cones are located at the centre of the retina primarily in an area called the fovea. The cones enable us to see the colour.

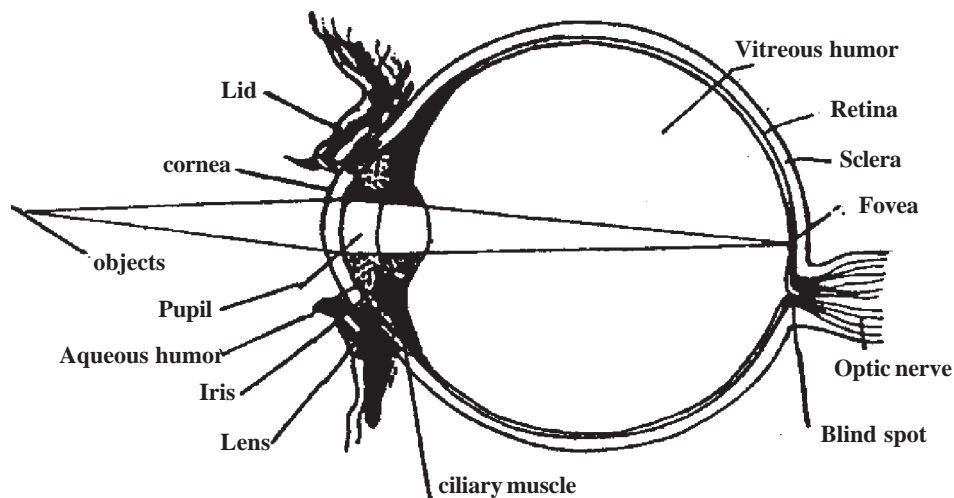


Fig 3 : Picture of eye

pupil to open wider to let it more light. In bright light the iris contracts, closing the pupil for cutting down the amount of light entering the eye. The

common complaints of near sightedness and far sightedness are caused by an error in communication between lens and the retina.

They operate mainly in daylight and are responsible for visual acuity. The rods that respond to low illumination are situated on the outside, of the peripheral areas. They are mainly responsible for night vision (the capability of seeing in the dark) Fovea the very centre of retina, contains only cones and no rods. This small region (about 20° of visual angle) is the only region of the retina with which we can see clearly. Now it is clear that the eye is the receptor which is responsible for our sensation of sight. The cornea of the eye receives the light and passing through the pupil and the lens,

they reach the retina. From the retina, the optic nerve carries the signal impulse to the brain, and we have the sensation of sight. The structure of the eye and its functions is very similar to a photographic camera. The outer white coat of the eye ball, sclerotic coat corresponds to the wood or metal of which the camera box is made. The retina corresponds to the photographic plate.

Ears (Sense of hearing) : The ear is also an important receptor. The sound sensation is received through the ear. The structure of the ear can be roughly divided into three parts :

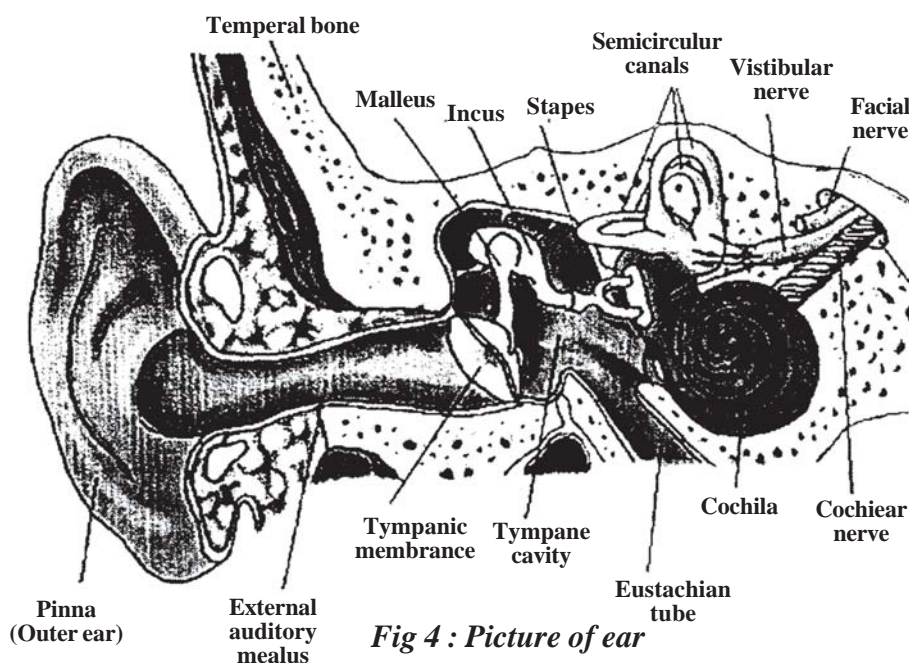


Fig 4 : Picture of ear

1. The outer ear, consisting of pinna and auditory canal, which is visible from out side.
2. The middle ear, consisting of ear drum (tympanic Membrane)
3. The inner ear formed by three small bone– they are ossicles, mallens, incus (anvil) and the stappes (stirrup)

The function of the outer ear is to collect stimulus from the external world and to pass them to inner ear. The eardrum receives the stimuli. The vibration of the oval window creates waves in the liquid substance that fills the cochlea. The cochlea is a coil like substance just like the shape of a snail. As the waves travels through the cochlea liquid substance the hair cells bend to and fro. At this point, the mechanical energy of the waves is transmitted into electro-chemical impulses that are carried by the auditory nerve to the brain. The auditory nerve fibres convey the auditory information through series of relay station to the auditory cortex, located in the temporal lobe of the brain.

From the inner ear the nervous impulse is carried to the brain where the sensation arises. When we hear a

sound the whole process is done very quickly. The hair cells in the cochlea are the receptors of hearing.

The skin : The skin or cutaneous systems give us information about the surface of the body. The skin is said to be a giant sense organ that covers the entire human body. Skin sense are:

1. Pressure and touch
2. Temperature sensation : cold and warmth.
3. Pain.

It has been found that the skin is not uniformly sensitive but has differential sensitivity– the points of greatest sensitivity to touch, cold, warmth (temperature) and pain differently located.

The receptors in the skin for those sensation fall into three general categories :

1. The free nerve ending receptors which are found just below the surface of the skin. They are involved in those type of sensation.
2. Basket herve ending receptors represent the nerve fibres that wrap around the base of the hair. They are responsive to the stimuli carrying touch or pressure sensation.

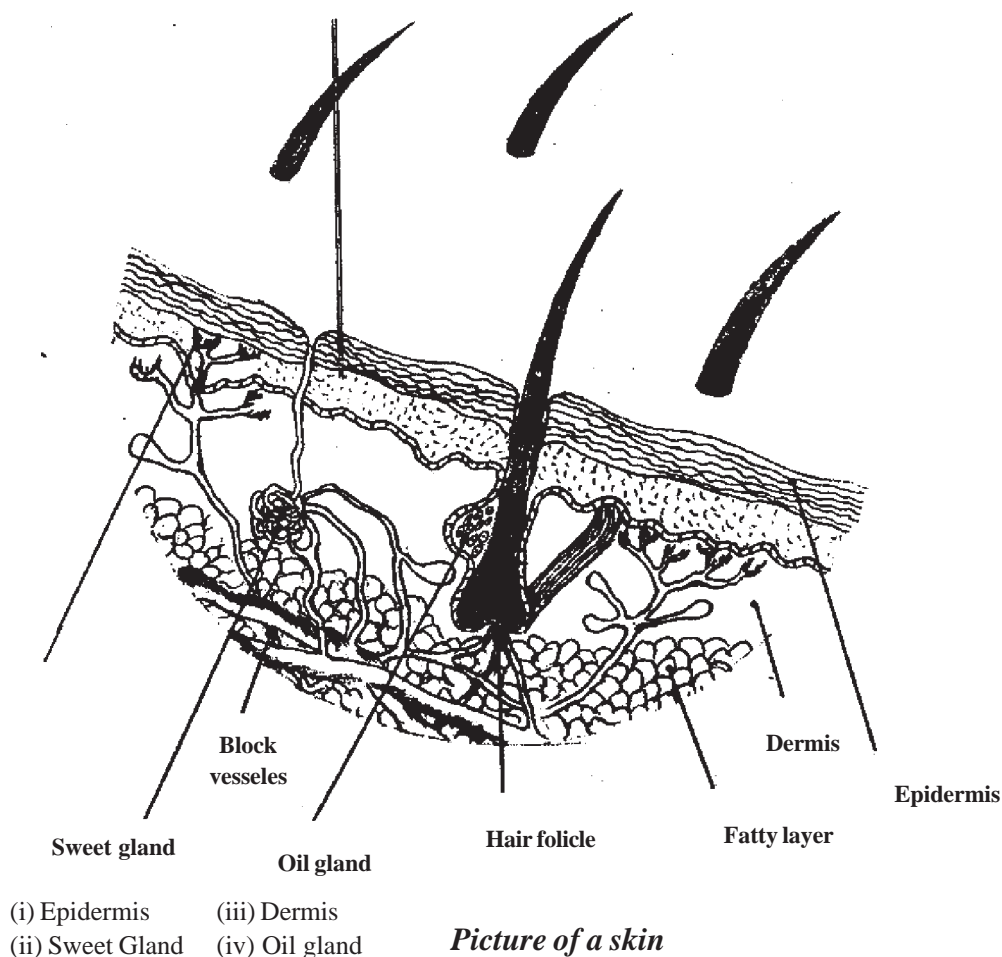
3. The third type of skin sense receptors represent those nerve fibres that end inside some sort of capsule or shell. They are responsive to pressure and temperature.

There are three layers of skin namely epidermis, dermis and endodermis.

In epidermis, as there is no blood cell or nerve cells, sensitivity is also

not there in this layer.

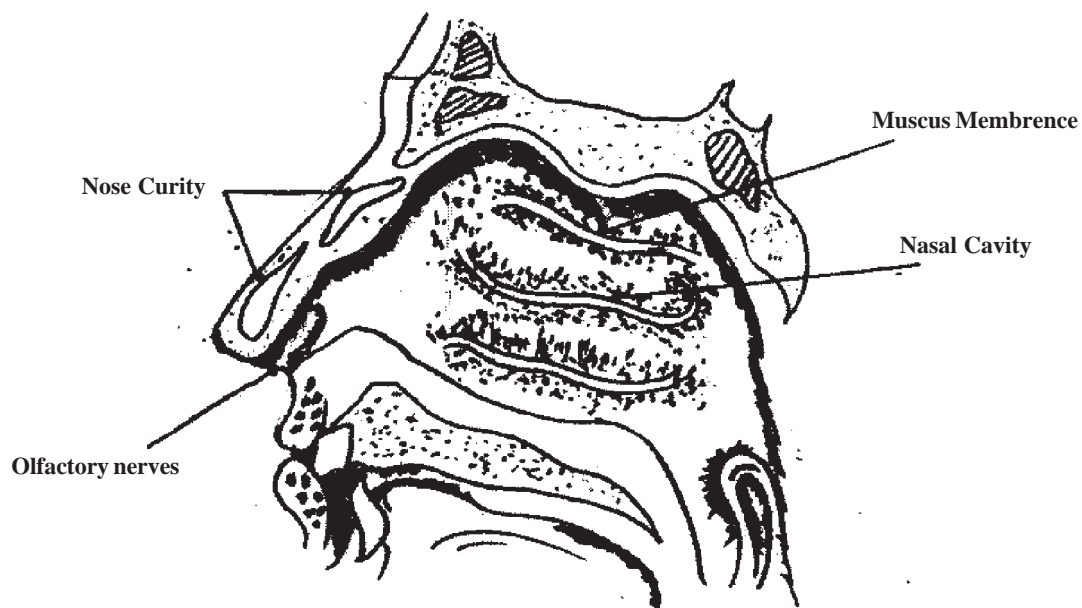
Dermis is that most sensitive layer of the skin. Endodermis is formed by fats below the skin. The pressure of stimuli from the external world falls on epidermis and then sensation is created on the dermis. The nerve cells carry the sense impulse to the brain and then we feel the touch sensation.



The nose : The nose is the organ of the smell. The stimuli for the sensation of smell are the gaseous substances in the air. The receptors for the smell sensations are situated in each nasal cavity in a small cell packed area called the olfactory epithelium. They are embedded in a mucus. The olfactory epithelium is packed with nearly 6,00,000 receptor cells known as olfactory cells. These cells have a lot of olfactory hair, which is stimulated by molecules of substances that comes in through the

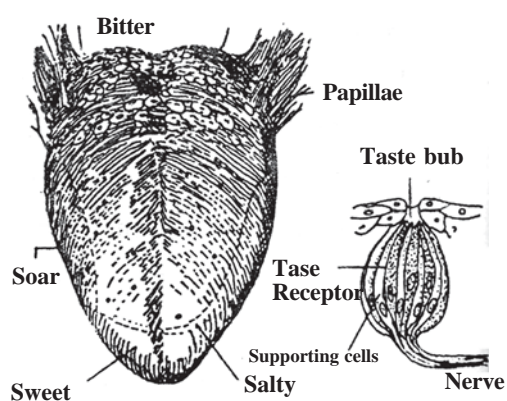
nose or rise up from the base of the mouth. The receptors carry the smell sensation in the form of neural impulses directly to the olfactory bulbs in the brain and as a result we experience a particular odour or smell.

Smell greatly adds to our enjoyment of food and appreciation of perfumes and deodorants. It is of vital importance to dogs and also other animals. The sensation of smell is useful in order to know the kind of surrounding we are placed in.



Picture of a nose

Tongue : The tongue is also another sense organ for taste. The sense of taste of gestation (technical term) has four main qualities. Salty, sour, sweet and bitter. The tongue is not uniformly sensitive to all stimuli. For example, back of the tongue is sensitive bitter stimuli and the tip of the tongue to sweet. The sides of the



Picture of a Tonghe

tongue respond mainly to sour stimuli and the tip and part of the sides responds to salty solutions. The sensation of taste can be stimulated only by fluids. Solid objects must first dissolve themselves before they can produce any taste sensation. At the back of the tongue there are taste bulbs or taste buds, each contains a number of

taste cells. When we put anything on the tongue, its particles come in contact with these cells and then the sensation is caused. The taste buds are the receptors of stimuli. They contain hair cells. They are called taste receptors. The average person possesses about 10,000 such taste buds and are spread all across the surface and sides of the tongue. They are mostly found clumped together on the tongue and the called papillae. Most of the papillae have grooves (moats) around their sides and when we drink or eat something, the liquid in the mouth fill up these grooves around the papillae and stimulate the hair cells chemically. The cells then send sensory message to the brain and results in the sensation of taste.

Effectors :

The organs of responses : There are mainly two types of effectors Glands and Muscles.

Receptors within the body of an organism received stimuli from the external world and send the messages of receiving stimuli to the brain and the brain with the help of which response finds full expression are

known as effectors. Responses are required to have adjustment with the environment. In the lowest level of animal like Amoeba, Sponge, Jelly fish and other simple multicellular organisms, the response mechanism involves a direct receptor-effectors' chain. In that case when the receptor receive the stimuli they react or respond directly with the effectors consisting of muscle cells. But in case of higher animals we have another class of effectors known as glands that help them to react or respond in relation to their receptors.

Now we can say that effectors comprises of muscles and glands (duct or ductless). These are the organs or responses. In higher classes you will be able to know more about the response mechanism. Let us discuss muscles and glands in brief.

Muscles : Muscles cover the whole body. With the help of muscles, the organism carries out motor activities

in order to respond to various stimuli. These muscles are of three types namely–

1. Smooth muscles (unstriped)
2. Cardiac muscles and
3. Straited (striped) muscles.

1. Smooth or unstriped muscles :

These muscles are found chiefly in the viscera, arteries and veins. They are flat and somewhat spindle shaped. They are concerned with the processes of digestion, excretion and blood circulation. In case of human beings and higher animals, they are controlled and activated by the autonomic nervous system.

2. Cardiac muscles : These are found in the heart and in human beings and higer animals and they are by the autonomic nervous system.

3. Straited or striped muscles :

These muscles are long and thin. They are made of fibres. These muscles are controlled and activated

Points to remember : Receptors

1. Receptors in our body are the sense organs that helps up to receive or respond to different stimuli.
2. Each of the receptors, Eyes, Ears, Nose, Skin and tongue are selectively sensitive to different stimuli and collect information about the world around us.

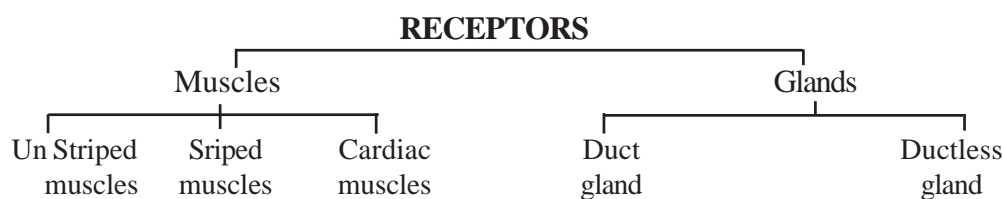
by the central nervous system in case of human beings and higher animals. They are voluntary in nature. All our voluntary motor activities like walking etc. and psychomotor skills (typing etc.) are performed through these muscles.

Glands : Another class of response mechanism or effectors is gland, which is very important for providing responses to various stimuli received by the receptors. They are responsible for physio-chemical response of the body and secrete chemical substances externally and internally. In other words, they respond to the stimuli by secreting their specific hormones or chemicals. On the basis of the nature of secretion they are divided into two types :

1. Duct gland and exocrine glands
2. Ductless or endocrine glands.

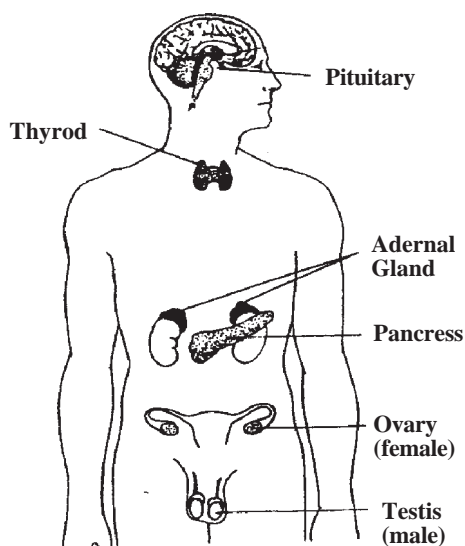
glands etc. are the examples of duct glands. Tear glands are located in the eyes furnishing fluid to the eyeballs moist. Salivary glands located in the mouth secrete saliva which helps in softening and digesting our food. Likewise, the sweat glands eliminate waste products in the form of fluid through the pores of our skin.

2. Ductless or endocrine glands : An endocrine gland is a ductless gland or organ of secretion which forms a specific chemical substance and passes them directly or indirectly into the circulating fluid to produce physiological effects on the other organs. The chemical substances secreted from the endocrine glands are known as 'Hormone' which plays a significant role in the development of fetus and in the growth of personality. The endocrine glands are supplied with the



1. Duct glands : Salivary glands, tear glands, eliminating glands, sweat

blood vessels but they have no ducts. So they cannot channelize the sub-



Endocrine gland system

stance they produce. These glands are also very important for regulating our behaviour. The hormones that are secreted by the glands are released directly into the blood stream. The hormones are the chemical messengers and help the nervous system to a great extent. Like the nervous system, hormones activate many organs of the body. They play an important role in influencing metabolism, the level of blood sugar and sexual functioning. The different endocrine glands are situated in our body.

They are pituitary gland, adrenal gland, gonads, thyroid gland and pineal gland etc.

1. Pituitary gland : It is also called master gland and is located in the brain. Its colour is reddish grey and size is of a pea. It secretes many different and the most essential hormones and exercise direct and indirect control over other glands.

The pituitary gland performs the following functions :

1. Hormones secreted by it regulate the activity of the other glands in the endocrine system.
2. It regulates the body's reaction to stress and resistance to disease.
3. Hormones of pituitary gland control blood pressure, thirst and body growth and helps in the secretion of breast milk of the pregnant woman.

2. Adrenal gland : It is located above the kidneys. They are very important in the neural functioning and secrete adrenalin and other hormones to adjust in the emergency conditions.

3. Thyroid gland : The thyroid gland is located at the base of the neck just below the voice box (in front of the

wind pipe). It produces one primary hormone, thyroxin, the main constituent of which is iodine. It plays an important role in the regulation of metabolism. Deficiency of thyroxin influences one's weight and level of activity. Low level of thyroxin in adults leads to inactivity, overweight and depression. Over secretion of these hormone is harmful as it can produce hypothyroidism, a condition characterized by nervousness, high blood pressure and fatigue.

4. Parathyroid glands : These glands look like tiny pea shaped organs. There are four different types of parathyroid gland and are located in the back surface of the thyroid. They secrete a hormone known as parathormone which controls the level of calcium and phosphate in the blood and tissues and helps in counterbalancing the exciting activities of thyroxin. The parathyroid glands remove the toxic products from the body and restore the nervous system to relative calm.

5. The pancreas : The pancreas gland is located between the stomach and small intestine. It secretes two hormones— insulin and glucagon, which work against each other to maintain

a balanced level of sugar in our blood. In case, balance is disturbed by the over secretion or under secretion of these two hormones, it leads to the excess or deficiency of sugar in the blood. The excess of sugar causes diabetes, a disease of pancreas and deficiency of sugar results in hypoglycemia, a condition of chronic fatigue.

6. The gonads : The gonads are six glands which are different in different sexes called testis in males and ovaries in females. These glands work with the adrenal Glands to control sexual development as well as sex role behaviour. The hormone produced by male gonads is known as androgens responsible for the developments of the male's secondary sex characteristics like growth of beard and moustache, change of voice etc. The female gonads (the ovaries) produce the hormone known as estrogens. They are responsible for the development of female secondary sex characteristics like developments of breasts, maturity of the genitals of helps in pregnancy etc.

Summary :

There is a close relation between mind and body. Mental life depends

on Physical well-being of the individual. So in psychology, to know the state of mind we must have knowledge about the systems and parts of body.

With the help of our sense organs we have the stimulus from our outer world. In the same way, the nervous system controls our bodily movements and mental activities. The personality of the individual, his way

of adjustment with the environment and his behaviour, all are controlled by the peripheral, and central nervous system. Besides, the efficiency of our receptors and the effectors, muscles and glands also have significant role on human development. So, proper care should be taken for development of human body and its functioning for healthy mental development of the children.

Points to remember : Effectors

1. The effectors are the muscles and Glands of our body.
2. Striped, un-striped and the cardiac muscles, our body carries out motor activities.
3. The exocrine and endocrine glands are responsible for physio-chemical response of the body.

Activity-4

1. List some diseases emerging out of brain injury.
2. Suppose you are going to appear in Educational Statistics examination tomorrow. What should be the state of your body and mind to fare in the examination. Describe from your experience.

The knowing Processes : (a) Sensation, (b) Perception and (c) Conception

We acquire knowledge with the help of sense organs. According to Madam Montessori senses are the gateway of knowledge. Our sense organs provide us with sensation. When sensations becomes meaningful or

infused with meaning give us our perception or we can say that in preception sensation is attached with meaning. The further step of preception is conception or concept formation. Concept is a generalized idea about the things, persons or events.

What is stimulus :

The external and internal factors that excites our sense organs are creates responses in our body are called stimulus. When a particular sense organ is stimulated it sends information to the brain through the nerves, which in turn responses to the stimulus. Every sense organs has different stimulus.

(a) Sensation : Sensation is caused by our sense organs which are described as windows of the soul or gateways of knowledge. It is a reaction aroused in us by stimulus. "A sensation is an act of the sense organ which when stimulated, sends nerve currents to the sensory centres of the

Sense Organ	Stimulus	Sensation
1. Eyes	Light	Visual
2. Ears	Sound gaseous	Auditory
3. Nose	substance	Olfactory
4. Tongue	fluid solid	Tasting
5. Skin	pressure	Touching

brain and the first response of the brain is sensation". Sensation is the simplest and the most elementary mental process.

Kinds of sensation :

There are five types of sensations corresponding to the five sense organs i.e. seeing (Visual/eyes), hearing or auditory (ears) smelling (olfactory nose) touching (skin) and tasting (tongue). From another point of view sensation may be of three types—organic, special and motor sensation. Organic sensation arises out of internal parts of the body. For example, hunger, thirst etc. Their source is purely biological. Special sensation is caused by the sense organs. And motor sensation is caused by the movement of muscles and joints.

Sensation depends on the quality, intensity duration, and clearance of stimulus. We can quote Sully's statement on sensation. "Sensation is a simple psychical phenomenon resulting from the stimulation of the peripheral extremity (i.e. outer end) of an afferent nerve when this is propagated to the brain."

Characteristics of Sensation :

1. Sensation is the simplest and the most elementary mental process.
2. Stimulus aroused sensation.
3. Sensation is objective mental state, as it depends on stimulus.

4. Sensation is a passive state of mind.

Sensation is a passive state of mind. In case of sensation, an individual receives stimulation passively. The unlearned first reaction of an individual to his environment by his various sense organs are called sensation. Now it is clear that sensations are the elementary impressions gathered by sense organs with little or no interpretation given by the central nervous system (CNS)

Educational implication of sensation :

In education sensation plays an important role. Since sense organs are the gateways of knowledge and sensation is the first impression, the early education of the child should be given in sense training. Madam Montessori is the chief exponent of it. Sense training is a training of the mind, of its ability to discriminate and interpret whatever the sense organs perceive. Montessori believed that physical and intellectual development is also associated with sense training. She devised some didactic apparatus or materials for sense training. For example, sense of touch is

developed with the help of rectangular blocks or tables with rough and smooth surfaces, sense of hearing or sound is developed through musical bells, sense of colour is imparted through coloured tubes, prism, rods, sense of size is trained with the help of series of wooden cylinders varying in height, diameter etc. Montessori emphasized that through didactic apparatus the child will learn with pleasure and those apparatus will lay the foundation of aesthetic appreciation and lead to the refinement in sense perception. Many physiologists also give importance on sense training through which the child gets deep knowledge, concrete and accurate insight into things.

The modern order in teaching is things, thoughts and words. This requires sense training. The principles from concrete to abstract and from direct to indirect emphasize the value of sense training with a wide variety of sensory experience of the world. If the senses of the child are trained in proper manner and at proper time he will get clear sense perceptions. He would develop his mind to receive instruction and adjust himself well

socially, intellectually and emotionally. Parents and teachers should make every effort so that the child forms correct perceptions. Since a percept has its basis in sensation, it is necessary to provide actual experience that presents correct sensory material. If an inadequate or incorrectly interpreted sensation is given to the child, it will produce a vague and false percept. In this respect, school excursion, trips to various places of importance, visits to museums, etc. provide proper and varied experience to the child and he gets valuable sense training.

Perception : When sensation becomes meaningful it is perception. In other words when sensation is explained or interpreted it is called perception. Perception is the

interpretation of sensation. Perception does not mean merely seeing but stimuli or objects must be perceived through any or through various combination of sensation. “When we listen, to a conversation or smell a palatable dish in preparation, look at the picture or read a book with attention, we are performing perceptual activities.” In real life, hundreds of stimuli fall on our sense organs but we attend only a few. So, our perception is selective and purposive in nature.

Perceptions are the results of interaction between the sensory and central nervous processes. In perceptions the sensory impressions are interpreted in accordance with specific social and psychological variables.

POINTS TO REMEMBER : SENSATION

1. Stimulus is the source of all types of responses or behaviour of the beings.
2. Sensation, perception and conception are the basic processes of acquiring knowledge.
3. Sensation is caused by our sense organs which when stimulated aroused responses.
4. Sensation depends on the quality, intensity duration and clearance of stimulus.
5. Sensation may be of three type :
 - (a) Organic Sensation
 - (b) Special Sensation and
 - (c) Muscular or Motor sensation

Characteristics of perceptions :

1. Perception is a selective process. We do not perceive each and every object around us. We attend to only a part of the objects which stimulates us. Attention is a basic process of perception. It makes our perception selective in nature.
2. Perception requires sensation : If there is no sensation, we cannot think about perception. It is intimately related to sensation. For perception we must first experience some sensation.
3. Perception involves organization : Perception is not merely a collection of present sensation and memory traces of first experience. It is a meaningful and intergrated organisation of past and present knowledge of experiences.
4. Change is the basic of perception : Perception is always a response to some change in the environment. Any change in the normal routine is perceived quickly.
5. Perception is objective as well as subjective. Certain things or objects like table, chairs etc. are perceived by everyone of us in a more or less similar manner. This

is objective perception. In certain cases our perception is influenced by our thoughts, motives, interests etc. such perception is subjective in nature.

6. Perception has an affective aspect : Our perception often induces emotions in us. When we perceive a friend after a long period of time, we feel happy. When we perceived a tiger, we are afraid. Thus perception prodeces feelings and emotions.
7. Perception is an active process. Mere seeing is not perception. It is an active process as we understand the object clearly.
8. Perception is highly individualized. It is an individual affair. Perception is highly individualized psychological process that helps an organism in organizing and interpreting the complex pattern of sensory stimulation for giving them necessary meaning to initiate his behavioural response.

Relationship between sensation and perception :

Sensation is the simplest mental state involving the stimulus, the nervous and the brain perception is

meaning sensation. So, there is relationship between the sensation perception. However, we can observe some similarities and dissimilarities between the two:

Similarities :

1. Both sensation and perception are dependent on sensory stimulus.
2. Both sensation and perception are external. It depends on external stimulus from the outer world.

Dissimilarities :

1. Sensation is simplest mental state whereas perception is complex mental process. Perception is sensation plus interpretation.
2. Perception develops knowledge but sensation gives raw materials of knowledge.
3. Sensation is abstract but perception is concrete experience.
4. Sensation is passive; perception is active state of mind.
5. Sensation is preventative, but perception is preventative and representative process.
6. Sensation gives us only partial knowledge of an object whereas perception gives complete knowledge of an object.

7. According to Broadbent sensation is the first response aroused by a stimulus. Perception is second response, following the sensation and being properly a direct response to the sensation and only an indirect response to the physical stimulus.

Stages of perception : There are certain stages of perception. They are :

1. Discrimination : When we compare or to note the difference of our experiences with the dissimilar objects then perception takes place.
2. Association and reproduction : With the help of association of past and present experiences, an individual perceives things.
3. Assimilation : In assimilation an individual compares his experiences.
4. Integrity of perception : Perception may be permanent or last for long time due to integrity of experiences.
5. Perception involves past experience: The present information can be meaningfully understood only when we integrate and interpret it in tones of present or future consequences.

Common Errors of perception (Wrong perception) :

Sometimes whenever we see is not always true. The errors of perception are quite common. There are some psycho-physical reasons which cause wrong perception. It is dependent on a number of factors— like the past experiences of the individual, his mental condition at the time of perception, the particular feature of the sensory object to which attention is given etc. It happens that same object may be perceived by different persons differently or by the same individual differently at different times.

There are mainly two types of wrong or incorrect perception. They are illusion and hallucination.

1. Illusion : Illusion is caused in presence of stimuli or objects. “An illusion is a wrong perception caused by the misinterpretation of a actual sensation under the influence of misdirected imagination or briefly it is making one thing for another in perception”— S. C. Dutta. It is possible only in presence of objects. For example, a rope lying in the floor or ground in twilight is wrongly perceived as a snake, in

moonlight a bush is misinterpreted for a tiger, mirage in the desert etc.

Caused for Illusion : Sensation is correct, but it is perceived or wrongly interpreted due to a many reasons or factors – like (1) atmosphere conditions, or irregular/unusual conditions in the external world, (2) defects of the sense organs, (3) established habit, (4) previous experience or present interest or aptitudes, (5) expectation or suggestion, (6) limitation, of the receptors, (7) attitude and mental set at the time of the stimulus and (8) emotional state of mind.

Let us cite an example or famous Muller-Lyer illusion.



Diagram of Muller – lyse Illusion of length. Which of the two lines in this figure is longer?

Although both these lines are equal or identical, yet the bottom line is perceived as longer. It is caused because of our interpretation and misjudgement of angles at the end of the lines as perspective cues. There are many illusion in our day to day life.

Hallucination : Hallucination is caused in the absence of stimuli or objects. It is caused by ideas. Hallucination is a wrong perception without any actual sensation but due to entirely morbid imagination it is perceiving something where there is nothing to be perceived. Like illusion, it is also an abnormal imagination. For example, you are observed in study seriously. All of a sudden you feel that your old friend has come to you. After a while, you see that your friend is not there. After enquiry you come to know that no such friend came to you. This seeing a person where there is none is a hallucination. There are many examples of hallucinations. When a person is over drunk

he talks with a person where there is none. A person having high fever starts delirium. These are caused by the ideas not by objects or stimulus. Although hallucination occurs to abnormal persons, yet we cannot overlook that there are certain circumstances under which even normal persons become victims of hallucination. Some of the major causes are physical indisposition, fatigue, use of intoxicants, emotion, mental illness etc.

Perceptual Development in Children:

Perception is dependant on our knowledge and experience. The perception of individual differ due to difference of sense organs, the

POINTS TO REMEMBER : PERCEPTION

1. Meaningful sensation is perception.
2. There are certain stages if perception. They are :
(a) Discrimination (b) Assimilation (c) Objectification (d) Belief
3. Two types of wrong perception
(a) Illusion and (b) Hallucination
4. Both sensation and perception are mental state difficult to differentiate. Perception is the interpretation of sensation.
5. In education, perception plays an important role. Since sense organs are the gateway of knowledge, the early education of the children should be given through senses and sense training. In Modern teaching methods therefore emphasis is given on training of sense and providing practical experiences than bookish knowledge.

amount and kind of stimulation to which one is exposed, past experience, interest and the degree of attention to the stimulating situation. Due to limited experience, fluctuating attention and physio-mental immaturity, the perception developed in the mind of the children differs from that of an adult. The perception of children is less analytical. They cannot find out the difference between a pen or pencil.

The infants are not much concerned about the environment. According to psychologist James, for the children "Environment is a big blooming buzzing confusion." As the children's experience increases and their interest is stimulated, they perceive things accurately and in details. Besides, the perception of the children develops slowly. They require much more stronger stimulus to perceive a thing than adults. They observe various things and interpret them according to their own experience. However, their perception becomes more practical as they become more mature.

Conception : Conception is the further step of perception which is a higher mental form of activity where

reasoning, problem solving, thinking are involved. "A concept is a rich entity which binds together the particulars and limits them into a comprehensive whole"—S.S. Mathur. Generalization and differentiation play an important role in concept formation. A child at the age of two years is sensing an object at first sight, say, for example a cow, then is perceiving the cow according to his maturity, differentiating it with other domestic animals and then concludes that it is a cow—not a dog nor a cat. A concept enables him to interpret the object (cow) of his thought, whether perceptual or imaginative. To discover what is common in man, cows, buffaloes, cats, sheep, cats etc. is a concept formation at a higher stage. From that point of view, we can say that concept building is a gradual process. It is a process which represents the similarities in diverse objects, situations or events. Concepts are the basic units of learning and reasoning and once developed they help in further thinking. It is a mental image of some object, person or an idea. Formation of new concepts is affected by past experiences. A concept represents a class of ob-

jects, animals or events. We have the concepts of table, chair, cow, teacher etc. Initially concepts about concrete objects are formed and gradually concepts like goodness, bad, justice, beautiful are formed along with the intellectual development of the individual.

Concept is formed through observation, analysis, comparison and abstraction, generalization and naming.

Formation of concepts : There are basically two processes of concept formation. They are—

1. **Generalization :** It means to strike similarities among stimuli, or objects, events, individuals, situations etc. belonging to the same class. An example will make us clear. A cat is seen by a child. It is his first experience. By and by, he begins to differentiate between a cat and other domestic animals and by his observation, analysis, comparison and abstraction he notes the common characteristics of a cat and forms a concept about a cat. Similarly other concepts of different stimuli develop through generalization.

2. **Abstraction :** Abstraction requires higher mental power and both generalization and abstraction go side by side. Generalization is generally applicable to the formation of concepts about concrete objects table, chair, telephone, etc. On the other hand abstraction is applicable to the formation of concepts about abstract ideas like truth, beauty, goodness, justice, etc. and therefore requires higher mental processes for their formation.

Attributes or characteristics of concepts : The main characteristics of concepts are :

1. Perceptibility, (2) learnability, (3) usability, (4) validity and (5) generality.
1. **Perceptibility :** Perception leads to the formation of concept. After observation and perception, perception gets mixed with the previous perception leading to the formation of new concept.
2. **Learnability :** Conception depends on learning. Conception is the result of observation, experience and thinking. Concept formation is very important because concepts are the units and the basic of

learning and thinking. Teacher should help the students in the formation of correct and positive concepts. Because correct and positive concepts help the students in the development of their personality. If the concept is not clear from the very beginning there is every possibility of developing nonrealistic ideas in them. So not only teachers, parents and guardians should be very careful while giving information to their children about anything they perceive.

3. Usability : Usability is another important characteristic of concept formation. If there is no frequent use or practice, learner cannot fix the concept in their mind.
4. Validity : Concept formation depends on validity or correctness. A concept is valid if it has a clear and definite meaning. When a child grows his experience and maturity help him to form valid and correct concept.
5. Generality : Concepts are the result of generalization. It is already mentioned that observation and perception of common characteristics lead to generalization and

consequently to the formation of concept.

6. Conception does not directly depend on sensation. It depends on perception. Since it does not come in contact with sensory stimulation, sometimes it may not have real basis. For example, story of a ghost, fairy tales, demons etc.
7. Final stage of conception is to naming of objects. After observation, perception, analysis, comparison and abstraction a name is given to have a clear concept about the objects, events or situations.

Development of concept in children:

Conception develops on the basis of perception. Children form concepts of different objects and ideas on the basis of observation, abstraction and generalisation. Concepts are formed about objects, qualities and relationships. Children form concept of concrete objects first and after acquiring maturity and experience they form concept of abstract qualities like truth, obedience etc. Concepts of relations are acquired with the growing experiences. Thus, concept building is a gradual process.

Educational Significance of Conception : Concept formation starts when a child is able to perceive objects through his senses. His concept grows along with his physical, mental and social development. Complex and complicated concepts should be taught to them in a simple way. Teacher should take note of the following suggestion while teaching:

1. Providing individual instruction :
A teacher should know that two children are not alike to each other. There are many individual differences in different aspects especially in concept formation. From physiological point of view it is suggested that individualized instruction should be imparted to the children according to their mental capacity.
2. Providing variety of experiences :
Concept is formed on the basis of large variety of experiences, observations and maturity. So children should be provided with experiences. (Teacher should illustrate this point.)
3. Using inductive and deductive method : Inductive method implies the presentation of examples and

on the basis of examples, the formation of generalization, whereas deductive method implies the testing and application of the generalization. The teacher should know these two techniques for the effective and successful formation of concepts.

4. Presentation of examples :
Concept must be developed on the basis of percepts which are provided by concrete objects and examples.
5. Use of Maxims of teaching :
For clear, definite and correct formation of concepts, the teacher should use maxims of teaching like proceed from simple to the complex, from concrete to abstract, from known to unknown etc. that will make learning of concept easy.
6. Active involvement of students :
In concept formation students should not be passive learning. They should actively participate in the learning of concept and their individual learning should be encouraged and they should be provided with learning situations to observe and generalize themselves.
7. Adopting integrated approach to learning :
Experiences and units of

learning should be presented to the students as a whole– or in an integrated form. The ‘whole’ is more easily understood by them. A combination of the whole method and part method will give excellent result for learning and the formation of concepts.

8. Use of audio visual aids : The teacher should make use of audio

visual aids for clear and correct concept formation.

9. Encourage independent evaluation : The student must be encouraged to evaluate the concept which has been learnt.
10. Provide for the use of the concept: Opportunities should be provided to the students for the use of concept.

POINTS TO REMEMBER : CONCEPTION

1. Conception is higher mental form of activity where reasoning, problem solving, thinking are involved.
2. Concept is formed through observation, analysis, comparison and abstraction, generalization and naming.
3. Concept formation has great educational significance. Concept grows along with the child’s physical, mental and social development. Complex and complicated concepts should be presented in a simple way relating to past experiences. Conception helps in increased attention and makes knowledge systematic.

SUMMARY OF THE CHAPTER

Sensation is the elementary level of acquiring knowledge. On the other hand, perception is sensation plus meaning. Both sensation and perception are the elementary form of knowledge. In summary, concept is a process of meaning and reorganisation of experiences on the basis of past experiences. Children form concepts of different objects and ideas on the basis of observation, abstraction and generalization. Concept forming is of great significance in educational process as it helps to organize knowledge, growth of imagination and forms bases of judgement. Keeping all these in mind, in the classroom, in presenting new ideas emphasis is given on relating the new with past experiences. Thus, sensory experiences, perception and concept formation from the basis of knowledge.

EXERCISE

1. What is sensation? Enumerate the characteristics of sensation.
2. What are the type of sensation? Distinguish between organic sensation and muscular sensation.
3. What is perception? How does perception develop through different stages?
4. Explain the relation between sensation and perception.
5. What is conception? How can teacher teach effectively through conception?
6. Senses are the gateway of knowledge– Elucidate the statement.
7. How does mental economy occur through conception? Write down the characteristics of conception.
8. Write short notes :
(a) Brain (b) Stimulus. (c) Receptors d) Endocrine gland
9. How does wrong perception form? What are its different types? State the reasons of wrong perception.

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CHAPTER-6

BASES AND DIRECTION OF HUMAN BEHAVIOUR

Contents

INTRODUCTION

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Nature of Habit

Characteristics of Habit

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Objectives

After reading this chapter you would be able to

- ☞ Understand about different schools of psychology and their roles and to understand human behaviour,
- ☞ Understand various aspects on which the bases of human behaviour depend.
- ☞ Understand the concept of Need, Drive, Instinct and Emotion.
- ☞ Understand the important factors that help in the formation of good habits and dissolution of bad habits
- Understand the concept of habit.

INTRODUCTION

You have already gone through in details about various concepts that are studied in psychology. Psychology is defined as the science of behaviour. It studies behaviour of every living organisms of this universe. It was the school of behaviourism which defined psychology from the view point of behaviour. With behaviourism the name of **John Broadus Watson** (1878-1958), a US psychologist, has close connection. J. B. Watson led a new movement in the field of psychology and established behaviourism as a new school of psychology which became the cornerstone of American Psychology. Behaviourism as a school had mainly four antecedent roots such as, early philosophical trends, animal psychology, Pavlovian conditioned reflex, and functionalism. Before Watsonian Behaviourism, the focal point of discussion of psychology was the human soul and mind respectively.

Psychology, as a formal discipline, did not exist until the late 1800s. Until this period, all psychological questions were considered and

discussed within the realm of philosophy, medicine or theology. Thus the influence of philosophy was very deep on psychological investigation at its early stage. As a result psychological discussions were more or less philosophical prior to the establishment of an independent experimental science in 1879. In 1879 psychology was established as an independent and experimental science with the effort of **Wilhelm Wundt** in Germany. Thus the history of psychology is very short but its past is very long. During this short period of its existence, many changes have taken place in the place of psychology regarding its subject-matter and the methods of study. Here in this point just to make the idea clear enough, the views of **Robert S. Woodworth** (1869-1946), a US psychologist, have special significance. **Woodworth**, just to mean the evolving concept of psychology, said, '**First psychology lost its soul, then it lost its mind, then it lost consciousness, it still has behaviour of a kind.**' The school of behaviourism, which was founded by, J. B. Watson in 1913 explained

psychology from the view point of behaviour. Psychology is thus an objective science which studies behaviour objectively. Psychology uses empirical methods like observation, conditioning, testing and verbal report for the systematic study of behaviour.

Thus from the historical observation and analysis of the concepts of psychology it became clear enough that the term behaviour is very broadly used in the field of psychological studies. Psychology studies the subjective reactions and responses towards different stimuli objectively. From the field of philosophy and physiology, psychology has inherited various issues and problems for objective analysis. As such modern thinkers opine that philosophy is the mother and physiology is the father of psychology. The primary issue of study of psychology is to determine the relationship between the body and mind. Here in this context, Watson straight forwardly rejected the concept of mind. He put importance on the physiological, i.e. bodily processes of the living being. Thus, for Watson, psychology became the

study of bodily responses that are made towards various stimuli in the total surroundings of man. As mind was not observable and it did not exist within the frame work of space and time, Watson straight forwardly rejected the idea of mind. For him man's physical reactions towards stimuli helped to study behaviours and this is the primary issue of psychology.

Concepts of Behaviour

The concept of behaviour of human being is not a very simple one. Human behaviour means the result of psychophysical reactions to stimuli. It means every aspect of an individual's actions including thought, emotional and physical activities. Human behaviour covers everything a person feels, thinks and does.

It was J.B. Watson, a US psychologist who used the term behaviour to explain the concept of Behaviourism. Behaviourism is a school of thought which was founded by Watson in 1913. Behaviourism as mentioned earlier and the behaviourists considered psychology and its subject matter from the point of view of behaviour of the living organisms.

Psychology for the behaviourists is purely an objective experimental branch of natural science. As such the proper subject matter of psychology for behaviourists is both simple and complex behaviour. In 1914, Watson published his book '**Behaviour : An Introduction to Comparative Psychology**' Likewise in 1919 his another book '**Psychology from the Standpoint of Behaviourist**' appeared. The concepts of behaviour and behaviourism were explained by Watson in these books. The principles of animal psychology were extended into human behavioural problems in the second book of Waston already mentioned here. Again in 1925 Waston wrote his third book 'Behaviourism' where he explained and gave a detailed account of environmentalist position and programme for improvement of human beings.

Before Waston the influence of environment on the process of adaptation was thoroughly explained by **Charles Darwin** (1809-1882), an English natural scientist. It was Darwin who published his great book '**The Origin of Species by Natural**

Selection' briefly known as '**The Origin of Species**' in 1859. In this book the evolutionary doctrine which is considered as very important data in the history of psychology was published in his great book, Darwin, after careful thought, came to the conclusion that in every generation some individuals or species survive and produce while other die before they can produce. In brief there is a process of selection, that is, those best suited to the available environment survived and the remaining die out.

Thus, there has been a systematic perseverance in the field of Biology and Psychology as well to study and analyse behaviour of plants, animals and very specifically of the human being.

Psychology, from a certain period of its development, has been trying to understand and analyse behaviour of the human being. The main concern of Psychology today is to help, to understand what people feel, think and do. It studies the nature, causes and roots of man's responses towards the total surroundings, i.e. the world as a whole. Thus, behaviour, very simply, means the result of man's re-

sponses towards the stimuli he/she faces. In brief, it is the result of the bond or connection between a stimulus and response (S-R=B where S stands for stimulus, R stands for response and B stands for behaviour). Behaviour includes every deed and feeling of the human being towards stimuli. It not only includes the physical responses or reactions but also the psychic responses or reactions. From the point, verbalization, or 'saying' is also a behaviour. Behaviour has two main dimensions. Thus, behaviour may be of two types. They are the **Overt behaviour** and the **Covert behaviour**. Overt behaviour is that which is the result of external manifestation of responses. This type of behaviour is observable, say as for example, the physical reaction of any kind of disturbance. On the other hand the covert behaviour is that which is internal reaction or responses to a stimulus. This type of behaviour is not observable, say as for example the psychic reaction of any kind of stimulation. The process of studying human behaviour is not an easy one. For this it is to be understood the thinking process, emotion

and motivations of the human being. The study of behaviour of the human being helps to understand the ways and means of how people cope with life and respond to its demands.

(A) Concept of Needs, Drives, Instinct and Emotion

Needs

To exist is the primary aim of every living organism. For existence every living organism manifests different behaviours to satisfy own needs. Whenever an organism fails to satisfy his/her own needs life becomes complex. In its simple perception, need means the condition of lacking or wanting something necessary or very useful. More precisely, need signifies a lack or want of something which is very useful or desired. Human needs are the essential psycho-physical, socio-cultural and personality requirements without which man never exists. Man strives for the satisfaction of his/her needs. **Annol Dictionary** of Education has explained needs as the positive driving forces that impel a person towards certain objectives or conditions. **A Concise Psychological Dictionary** has explained the term need as an

individual's state created by his necessity in objects essential for his existence and development. Need is the source of human activity. Human activity reflects the nature of human being.

Human nature is very diverse. Thus the diverse nature of man helps to arise various needs for self-actualization. It was **Rogers, Carl R.** (1902) a US psychologist and **Maslow, Abraham** (1908-1968) also a U. S. psychologist who formulated self-theory and self-actualization theory respectively to develop the humanistic psychology.

It was Maslow who formulated the concept of need hierarchy in which five different needs are arranged in order of prepotency. They are the **physiological needs, love and belongingness needs, esteem needs** and **self-actualization needs**. These needs were separated into two categories such as lower level needs and higher level needs by Maslow. Physiological needs and safety needs were placed in the category of higher level need.

The five needs may attain be discussed thoroughly as the given below.

1. Physiological needs

Physiological needs may be explained as the basic or fundamental needs of human being. Basic needs are the primary requirements of every human being. These needs are the essential conditions for self-existence. Without satisfying these need man never can think about any other higher needs. Few examples of physiological or the basic needs may be given as needs for food, need for water, need for oxygen, need for temperature, need for sex etc. These needs may also be termed as the biological needs of the living organisms. In case of human being the satisfying state of such needs helps to originate all higher types of needs. Suppose, an individual is very hungry or thirsty. Without satisfying his hunger or thirst he/she will not think about the need of love and respect for self and others.

Physiological needs have two important characteristics. They are :

- (a) These needs recur after a specific period of time. These needs if satisfied fully at particular point of time may reoccur after a certain period of time. Thus these needs

are of cyclic nature. As for examples needs for hunger, thirst, sleep etc. may be cited. If a man becomes hungry, he may be given something to satisfy his needs. But after a certain period of time this many reoccur again and he/she may feel hungry.

- (b) In a certain point of time these needs may completely be satisfied. Suppose a man is thirsty. His thirst may be quenched wholly. But in case of other higher needs total satisfaction is not possible.

2. Safety needs

Safety means the condition of being safe or freedom from danger, harm or risk. Safety needs are such needs by the help of which physical and mental conditions of being safe are felt. After the satisfaction of the physiological needs, safety needs come to the forefront. Need for physical security, protection, stability, freedom from anxiety, danger and chaos etc. are the examples of some of the safety needs.

3. Love and Belongingness needs

After the partial or complete satisfaction of physiological and safety

needs the needs of love and belongingness become more effective. These needs arise in the process of socialization and these are satisfied with the help of social interaction. Need of friendship, for belonging to a group, showing love and affection to families, need for companion etc. are some of the needs of this category. In the words of **Maslow** without the fulfillment of such needs children and the adults face difficulties in **growing** their personalities with sound psychological health.

4. Esteem Needs

After all the four types of needs are satisfied, esteem needs arise. Two sets of needs are included in esteem need. Needs for strength, competence, self-confidence, independence, mastery etc. fall under the first set. Likewise needs for prestige, fame, dominance, dignity and appreciation fall under the second set. In the words of Maslow satisfaction of self-esteem needs produces feeling like self-confidence, capability, strength, worth etc. and thwarting of these needs lead to feeling of inferiority, helplessness, weakness etc. Alfred Adler (1870-1957), a US psychologist and Erikson, Erick

H (1900), also a US psychologist have pointed out striving for superiority need and need for mastery respectively. Maslow's esteem, needs have similarity with those needs for Adler and Erikson.

5. Need for Self-actualization

Self-actualization means the desire for self-fulfillment. It also means the realization of all the potentials of the individual's self by the individual, to become according to the wishes of the individual and to be creative in real sense of the term. In its precise perception self-actualization means to reach the peak of one's potential so that he/she could become a fully functioning person. It is one of the higher level need which is an umbrella need that covers 17 metaneeds or being values. Metaneeds do not have any hierarchy and these needs are equally potent for the well-being of the individuality. Examples of metaneeds may be given as need for perfection, need for wholeness, need for richness, need for beauty, need for goodness, need for truth etc.

Maslow is famous for his self-actualization theory. To explain the concept of self-actualization Maslow

has explained the theory of hierarchy of needs where different needs and their importance for self-actualization have been explained.

Besides Maslow, other psychologists have defined and classified human needs. According to them, human needs in general may be classified as **basic or fundamental needs** and **personality needs**.

Basic or fundamental needs are those which are important for the existence of human being. Basic or fundamental needs include the physiological and psychological needs.

It was Jung Carl Gustav (1875-1961), a Swiss psychologist and psychiatrist, forwarded the list of basic needs and of the goals that satisfy them, In the words of Young :

1. Needs arise because of processes taking place within the body. The individual therefore :
 - (a) Seeks food and water to satisfy hunger and thirst;
 - (b) Seeks rest and sleep to avoid or reduce fatigue;
 - (c) Seeks to rid the body of waste products by excretory activities;
 - (d) Seeks a member of the opposite sex to satisfy sexual desire;

(e) During bodily illness with high temperature and under conditions of heat, cold or lack of oxygen, the body automatically becomes active and perspires, shivers and grasps in an attempt to right imbalance.

2. Needs arise because of stimulation by external subjects. Resulting behaviour may broadly be divided into :

- (a) approach activities aimed to seek comfort and pleasurable stimulation;
- (b) withdrawing activities aimed to prevent discomfort and pain.

3. Needs arise for physical and for expression of feeling. An individual satisfies such needs through :

- (a) random movement of the arms, legs, hands; gross activity of the whole body; as the running, climbing and swimming;
- (b) random vocalization, bodily movement; jumping and shouting in excitement or joy; slumping and weeping in sorrow.¹

Basic or fundamental needs have special significance for human existence and personality development as well. Personality needs are those

needs which have special significance for better and balanced development of personality. All social needs are personality needs. The need for economic security such as need of job and income, life free from poverty, need for building, land, equipment, animals, trees, need for savings etc. all are personality needs. Likewise, the need for social security as belongingness, social acceptance, friendship, love, affection, companionship, etc. have special significance for better and balanced development of human personality. The need for personal worth and superiority such as success, leadership, mastery and power, favourable attention or recognition, prestige and food status, high standing self-enhancement, approval, importance, self-respect esteem, worthiness, self-satisfaction, honour etc. have special significance for the development of personality of every individual.

Both basic or fundamental needs and the personality needs are the basis of human existence and the element of personality development. These needs are the motivational forces by the help of which man indulges in different works.

Drives

After knowing about the needs, it is more essential for you to know about the drives. There are close connections of drives with our needs.

Drives in brief, are the driving forces of the human body. **Longman's Active Study Dictionary of English** has give the meaning as a forceful quality of mind or spirit that gets things done. According to **Annol Dictionary of Education**, drives refer to internal states which when aroused lead to action. Thus, in brief, drives are the psycho-physical forces which operate as the constant motivational forces towards the fulfillment of needs. According to **Freud Sigmund** (1856-1936), the great Austrain psychiatrist an instinct is an internal drive that operates as a constant motivational force. **Maslow, Abraham** (1908-1968), a Us psychologist and a proponent of the humanistic psychology has mentioned about physiological drives to explain his Personality Theory. 'A physiological drive is an aroused bodily condition that activates and directs a person's behaviour. When a person is in a physiological state of

need, this activates a drive in him to reduce his need. While several physiological drives will direct behaviour (oxygen, temperature, balance, avoidance etc.), the three primary ones are hunger, thirst and sex.'²

Klausmeier has defined drives as, 'a drive is a tendency initiated by shifts in physiological balance, tissue tension, sensitivity to stimuli of a certain class and response in any of variety of ways that are related to the attainment of a certain goals.'

Hull, Clark Leonard (1884-1952) and **Skinner, Burrhus F.** (1904), both U.S. psychologists and later behaviourists have different views regarding behaviour and learning.

Hull has special opinion regarding learning. **Hull's system**, comprises a series of postulates (a self-evident fact) and corollaries (an obvious inference) which mainly centered round drive, reinforcement and response strength. 'One of his postulates deals with primary drive (D). Primary drive is also a kind of intervening variable which was very important in **Hull's theory**. Drive is a temporary state of the organism that is produced by something our body needs or by pain-

ful stimulation. It had distinct function as under :

- (i) Drive makes the primary reinforcement always more effective because such re-inforcement always requires the rapid decrement in some drives.
- (ii) Drive also produces response because it activates habit strength into reaction potential (SER). He postulated that drive multiplies with habit strength to produce reaction potential. Thus $SER = D \times SHR$ (habit strength). This equation automatically suggests that if the organism has zero drive or no drive, then in that case SER will be zero or there will be no response.
- (iii) Some drives also produce action habits set up on the basis of different drive conditions. It means drive also produces distinctiveness among the various internal stimuli (the so-called drive stimuli.)³

Skinner, on the other hand explained drive operationally in terms of hours of deprivation for food, water etc. or in terms of the percentage of animal's normal body weight. In this way we

find that **Skinner** explained drive in spirit of operationism and made it clear that it could be measured objectively like anything.⁴

In simple perception drives are the urges. Drives or urges are the driving forces to action of the psychophysical state of the human being. These are the motivating forces to action. Drives act as forces to actions. Different example of drives may be given as hunger drive, sex drive or sex urge, drives for wealth, drive for achieving distinction etc. Needs, drives and motives have inter-relationship. These are the dynamic forces which lead an individual towards different actions.

MOTIVES

You have already studied about the needs and drives. There is another most important term i.e., motive, which has close relationship with needs and drives. Motive is a psychological state.

Longman Active Study Dictionary of English has given the meaning of motive as a cause of or reason for action. In other word motive is a psychic force which urges a person

to act in certain way. **Anmol Dictionary of Education** has explained the term motive as the impules or drive that arouses and support an activity.

A Concise Psychological Dictionary has explained and defined the term motive in a varied ways. According to the Dictionary, motive is an inducement (temptation, an incentive) to activity linked with the satisfaction of a subject's needs; a set of external and internal conditions, which brings about a subject's activeness and determine its direction. A motive is an object (material or ideal) including and determining choice of direction of activity for the sake of which object it is implemented.

The concept of motive is very comprehensive. It carries wide extensive meaning. Psychologists have defined motive as a specific internal condition which directs a person toward a goal. **Maslow**, the spiritual father of humanism in America and a great humanistic psychologist, assumed that human beings have inborn or innate motives to seek self-realization. **'Any internal condition within an organism that appears (by inference) to produce goal-directed**

behaviour is motivation. Motivation may develop because of psychological needs and drives, or because of more complex desires.'⁵ All the three terms motive, need and drive have close relationship. **'Motive is a specific internal condition directing an organism's behaviour toward a goal.'**⁶ **Need is an aroused physiological condition involving and imbalanced. Drive is an aroused condition within the organism that initiates behaviour to satisfy physiological needs. Drives are inferred from behaviour'**⁷.

Motive, in brief is a desire behind a desire. A desire indicates a need and a drive is a force or urge which leads to reach the desire. Thus need helps to generate motive towards an action and drive forces for the accomplishment of the goal. An example will make the idea clear enough. When one feels thirsty one desires to drink water which quenches thirst. Desire for water drives or urges the person to an action. In this case thirst is the need, to drink water is the motivation and desire for water is the drive. Thus a motive is a desire behind a desire.

Regarding the concept of motivation psychologists differ in their views. They have agreed that the concept of motivation is very illusive. So it gets difficult to find a concrete definition of motivation. It was **Dececco** who has to defined motivation as referring to those factors which tend to increase or decrease the virus in an individuals. It determines level of activity in him. It imitates and directs the activity'⁸

INSTINCTS

The term **instinct** has originated from the Latin term '**instincts**' which means '**impulse**'. One of the important aspects of discussion and study in psychology is the instincts. Instincts are original or innate dispositions of the living organisms. These are inborn tendencies of the living organisms to behave in a certain way. Instincts are the natural abilities or skill. The original potentialities or tendencies or feelings such as self-preservation, aggression, inquiry, self-display, hunting, food seeking etc. are clustered in a special term, i.e. instincts. These are very complex type

of innate non-variable behaviours which help every higher classed organisms to cope with its total surroundings. In each member of the species the original form of behaviour, i.e. instincts remain present. These are the crude form of behaviour transmitted by the hereditary or genetic influences of the races of organisms. Instincts are unlearned behaviour patterns. These are natural and they help to lead the initial journey of life of every organism. Instincts help and encourage each member of the species to keep alive the original behaviour forms and life pattern of the races.

Longman active Study Dictionary of English has explained the term instinct as the natural force in people and animals which causes certain behaviour patterns, such as nest-building, which are not based on learning or thinking.

A Concise Psychological Dictionary, Edited by **A. V. Petrovsky** and **M.G. Yaroshevsky** has given the elaborate explanations of the term instinct. Instinct, as the dictionary explains, is an evolutionally estab-

lished, genetically determined predisposition of a representative of biological species for carrying out a stereotyped set of biologically purposeful actions which make it possible to obtain certain results without anticipating them and without preliminary instructions on how to achieve them. The term '**instinct**' is commonly used to denote the most conservative and stereotyped innate automatisms (in animals) and little realized, unconscious aspects of the purposeful behaviour against the background of a strong affect (in man). The notion of instinct is closely connected with the idea of existence of inherited programmes of behaviour typical of a particular species which is aimed at satisfying the vital needs of the organism. It can be interpreted from three view points: (i) its genetic basis; (ii) its neurophysiological mechanism; and (iii) the totality of its behavioural manifestations.

Behind the concept of instinct, there is a long history. The concept prevailed in the middle ages. It was **Rene Descartes** (1596-1650) since whose time Rationalism took new turn and instinct was regarded as a

form of behaviour contrasted with intelligence and reason. Instinct was supposed to be implemented in the organism by God and as such offered the living beings an unerring guidance for adaptation. Instinct was also regarded as absolutely mechanical and unconscious in its nature. At an early stage it was supposed by the Christian monks that man alone acts with reason, while the lower animals act through instincts.

It was **Darwin, Charles** (1809-1882) an English naturalist, 'for the first time, had challenged the sharp distinction between the instincts in animals and reason in man. In Darwinian concept there is no fundamental difference between man and the higher mammals in their mental faculties. Man has also some instincts in common, such as those of self-preservation, sexual love, the love of the mother for her new-born offspring, the desire possessed by the latter to suck and so forth. He concluded after proper observation that if animals are creatures of instincts and emotions, man also shares these with the animals.'⁹

All organism try to keep own existence and preserve own race. For this every organism desires to live and protect its offspring from danger of destruction. Instinctive urges of the organisms help in this universal process of maintaining lives and preserving races. Thus instincts are the native tendencies of maintaining lives and preserving races. Instincts are inborn, innate, original dispositions of an organism which constitute the psycho-physical aspects of a living being. These are the original behaviour by the help of which basic tendencies of life are fulfilled and problems are naturally solved.

Different psychologists have explained and defined instincts from varied view points. These definitions may be arranged as given below to make the concept of instinct easily understandable.

It was **Darwin, Charles** (1809-1882), an English naturalist and the theorist of the famous theory of evolution which was published in his famous book '**The Origin of Species**' published in 1859, who forwarded the basic idea of instincts. In 1871 **Darwin** published another book

'Descent of Man' where he emphasized the similarity between human characteristics and those of higher animals. From such knowledge **Darwin** concluded that human beings are descended from an ape-like ancestor. Man's intellectual abilities differ from those of certain vertebrates like apes only in degree and not in kind. To defend the controversy which was provoked by this theory, **Darwin** turned towards psychological studies of emotional behaviour of human beings and animals. Thus he authored the expressions of emotions in man and animals in 1872 where he explained that human beings resembled animal beings in facial and postural expressions during emotional activities.

In the words of **Darwin** both the influences, genetic as well as environmental, were important in determining behaviour. This led to the famous nature-nurture controversy in modern psychology.

Darwin had more profound influence upon Freudian Psycho-analytic movement, the functionalism and the psychology of **William James**.

It was **James William** (1842-1910), a US philosopher and psychologist, who defined instincts as **‘the faculty of acting in such a way as to produce certain ends, without foresight of the ends, and without previous education in the performance.’**

Thus, ‘by instinct, James meant unlearnt patterns of reacting. In advocating the doctrine of instinct he was influenced by **Darwin** and other animal psychologists of his time. He pointed out that these instincts facilitate both human beings as well as animal beings in doing things in natural way. He also made it clear that human beings as compared to other species, have the largest number of instincts. Among human infants crying, biting moving and vocalizing are some of the major instincts. In adults imitation pugnacity, hunting, play, love, fear and jealousy are the major instincts. For James instincts were self-preservative as well as unlearned. Despite this, he did not consider instincts to be blind and invariable rather they were modifiable by habit. With changes in the conditions antecedent to the onset

of the instinctive act, the instinct may itself be changed or modified. Therefore, for James, instincts were non rational.’¹⁰

It was **Freud Sigmund** (1856-1936), an Austrian psychiatrist and the founder of the school of psychoanalysis in psychology, offered a thorough analysis and explanations on instincts. ‘Freud maintained that human beings are the complex energy systems. He assumed two types of energy– the physiological energy and the psychic energy. The physiological energy is derived from the food we consume and it utilized for purpose like breathing, walking, running, writing, etc. The psychic energy is derived from the “neurophysical states of excitation” and is utilized in psychological activities like thinking. He further assumed that these two kinds of energy could be transformed into each other. The **‘id’** was the mediating point between the psychic energy and the physiological energy. According to **Freud**, each person has a limited amount of psychic energy and total amount of the psychic energy is expanded in those mental activities that attempt to reduce bodily

excitation created by the various needs. The psychological or mental representations of these bodily excitations or need are called instinct. In other words, instinct is a wish (psychological representation) to fulfill a physiological need. For example, thirst instincts is derived from water deficiency in the body cells and it is mentally represented as a wish for drinking water. Thus instinct indicates quantity of psychic energy and all instincts taken together constitute to total amount of energy available to the personality. In a nutshell, an instinct is an internal drive that operates as a constant motivational force. Instinct originates from 'id' but comes under control of 'ego'. Instincts have four major features— **a source, an aim, an object and an impetus** refers to strength or force of the instinct.

In his writings after 1920, **Freud** distinguished two categories of instincts— **The life instinct or eros and the death instinct or Thantos**. The life instinct includes all those forces that maintain vital life processes and assure propagation of species of the various life instinct. Sex instinct was singled out by **Freud** because this was

the most important one in development of personality. The energy of the sex instinct is called **libido**. The term sex instinct was used by **Freud** in a boarder sense to include not just the desire for and enjoyment of genital sexual pleasure but also pleasure derived from several bodily areas. The death instincts or thanos also known as destructive instinct includes all those forces that underline the manifestations of murder, suicide, aggression and cruelty. Such instincts are not less important in determining the individual's behaviour. **Freud** opines that there is an empirical basis of death instinct because there exist in an all living organisms a tendency to re-establish the inanimate state out of which they have been formed. That is why **Freud** claimed that '**the goal of all life is death**' (Freud, 1920:38)¹¹

McDougall, William (1871-1938) a US psychologist is mainly famous for his theory of instinct. It was **William McDougall** who developed the system of hormic psychology. The term 'hormic' was borrowed by **McDougall**, from the Greek term '**horme**' which means an '**urge**'.

McDougall highlighted his concepts of psychology in his major

books such as **'Physiological Psychology'** published in 1905; **'Body and Mind'** published in 1911; **'Outline of Abnormal Psychology'** published in 1926; **'Introduction to Social Psychology'**, published in 1908; **'Psychology, the Study of behaviour'**, published in 1912; **'Outline of Psychology'**; published in 1923. Out of all the following books, it was the **'Outline of Abnormal Psychology'** (1926) and **'Introduction to Social Psychology'** (1908) which became very popular.

McDougall, in his first book **'Physiological Psychology'** published in 1905, defined psychology as 'the positive science of conduct of living creatures.' He meant behaviour by the term conduct.

McDougall had pointed out that the activities led the person to some goal or end. Such activities are known as purposive activities or behaviour. He has postulated that if these activities lead the person to a goal or end, there must be some kind of energy behind these activities. He termed this energy as instinctive energy. In his book **'Introduction to Psychology'** published in 1908; he outlined his most famous theory of

instinct. He had defined instinct as inherited psychological dispositions which determine the person, "to perceive or to pay attention to objects of a certain class, to experience an emotional excitement.... and to act in regard to it in a particular manner". (**McDougall, 1908:35**). **McDougall** considered instincts as "release mechanism or just easily exploding containers of energy." Thus for him, instinct is the storage of potential energy that is liberated into appropriate channels when that is excited.

For **McDougall**, instinct is one of the vital forces that strives the organism towards some sort of goal. It has following three aspects or functions:

- (i) **Cognitive or perceptual aspect:** This relates to our perceptual predisposition to notice some stimuli. For example, to perceive certain food odours when one is hungry constitutes the cognitive aspect of instinct.
- (ii) **Conative or motivational aspect:** This relates to our ability to move towards the final goal. For example, having perceived certain food odours, we move towards taking that food."

(iii) Affective or emotional aspect :

This is the central or main part of the instinct. It relates to the feeling involved in the instinct: For example, feeling of fear is involved in the escape mechanism.⁷¹²

Characteristics of Instincts

The definitions and explanations that have already been forwarded above, help us to determine the

characteristics of instincts as given below :

- (1) Instincts are the innate or inborn or inherited tendencies of the living organisms.
- (2) Both man and animals have some common instincts. They are self-preservation, sexual love, love of mother for her new born offspring, the desire possessed by the new-born offspring to suck his mother etc.

List of Instincts forwarded by McDougall

Instincts	Emotions or Emotional responses
Instinct of escape	Fear
Instinct of combat	Anger
Repulsion	Disgust
Parental	Tender Emotion
Appeal	Distress
Pairing	Lust
Curiosity	Wonder
Submission	Subjection
Assertion	Elation
Social	Loneliness
Food-seeking	Appetite
Acquisition	Ownership
Construction	Creativeness
Laughter	Amusement

- (3) Instincts constitute the psychophysical aspects of a living being.
- (4) Instincts are the unlearnt patterns of reacting.
- (5) Instincts have mainly two goals. They are self-preserving and race preserving.
- (6) Instincts can not be considered as blind and invariable. These are modifiable by habit.
- (7) Instincts indicate the animal nature of man.
- (8) Instincts are universally similar in all the living creatures, i.e. in men and animals. Only reason and intellectual abilities differentiate man from animal.
- (9) Instincts are the wishes to fulfill physiological needs.
- (10) Instincts give impression to racial characteristics of all group of species.
- (11) Instincts are the release mechanism or just easily exploding containers of energy.
- (12) Instincts are the vital forces which strives the organisms towards some sort of goals.

Principal Instincts

Regarding the number of instincts **McDougall** offered different views.

In 1908 he mentioned about 12 major instincts. These instincts were listed in the first edition of his famous book **Introduction to Social Psychology**. However, experts are of the opinion that there are 14 instincts forwarded by McDougall. The original list of 12 instincts with their respective emotional experiences are as the following :

Quasi-Instincts :

Instincts are innate tendencies which have some specific emotions. **McDougall** pointed out some innate tendencies such as sympathy, suggestion, imitation, play and habit or routine which do not have any specific emotion or any specific bodily behaviour. In the words of **McDougall** such tendencies are the general innate tendencies which may be called as quasi-instincts.

Instinct and Reflexes

Two functions are performed by the human organism which are called as bodily and psychic or mental functions. Bodily functions or behavioural manifestations through physical activities can be observed and easily understood. However, the psychic or

the mental functions or reactions are not easily understandable. These are assessed and understood by the introspection of the adults.

Behavioural manifestations of the human organism, specially in adults are very diverse and dynamic whereas the behavioural manifestations of the children are largely non-diverse and non-varied types. During immature stages, the child tries to meet his/her needs by the help of physical responses. Adjustment to his/her environment is also made by the physical functions. Likewise responses or reactions to non-adjustable environment is also shown by the physical responses. Thus the stimulus to the body is reflected back by the bodily movements. During childhood when certain afferent nerves are excited, it immediately leads to the excitation of others which bring about the movement. To make the idea clear enough it may be pointed out that when someone put a finger in a child's mouth the child

begins to suck. If the eyelids of a child are touched the eyelids blink. If this situations are repeated same results are observed. Thus from such experiences it is seen that the stimuli to the parts of body are reflected back by physical or bodily responses which are called as reflexes. These are inherited capacities of the living organisms. The reflexes are innately determined by connections between the sensorium and the motorium nerves of the body. These are automatic reactions to stimuli. As such mental functions are less important during reflex actions.

Instincts are also the inborn or innate potentialities like reflexes. But these are more complex than the reflex reactions. Reflex actions are more or less non-variable whereas instinctive activities may occur in varied or modified ways. The differences between the reflex reactions and instinctive activities will be more clear from the following points:

Reflex Reactions	Instinctive Activities
(i) Reflex reactions are sensory reactions.	(i) Instinctive activities are emotional reactions.
(ii) Reflex reactions are bodily reactions.	(ii) Instinctive activities are psycho-physical reactions.

<ul style="list-style-type: none"> (iii) Reflex reactions affect only a special part of the body. (iv) Reflex reactions are non-variable. (v) Effect of reflex reactions are very temporary. (vi) Reflex reactions are aimless. (vii) Reflex reactions do not have feeling aspect of experience. (viii) Reflex reactions are unchangeable. 	<ul style="list-style-type: none"> (iii) Instinctive activities are psycho-physical reactions in the whole physique. (iv) Instinctive activities are variable. (v) Effect of instinctive activities have lasting impression on psycho-physical state of the organism. (vi) Instinctive activities have special goals or motive linked with them. (vii) Instinctive activities have emotional expressions. (viii) Instinctive activities may be diverted by training
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Modification of Instincts :

It has already been mentioned from the **Darwinian** viewpoints that the genetic and environmental influences determine man’s behaviour. From the view points of genetic influence or inherited potentialities, particularly from instinctive point of views, there is not so much difference between man and the lower class organism. **Freud** also laid stress on the animal nature of man at the time of formulating his theory of instinct. As the proof of it the death instinct of man

is the manifestation of such animal nature.

Psychologists and philosophers have laid stress on the intellectual abilities and the rational powers which differ from animal in degree and not in kind, have differentiated man from animals. For the development of intellectual abilities and the rational powers man’s instinctive potentialities are to be modified. Reversely instinctive potentialities are the crude form of behaviour which are to be polished and channelised to

make man rational. Here at this point a question like— can instinct be modified or are instincts modifiable comes to our mind. **Mcdougall's** views in this respect are sufficient to have the answer of the question. **Mcdougall** has pointed out three main aspects or functions of instincts. They are : **the cognitive or perceptual aspect, the conative or motivational aspect** and **the affective or emotional aspect**. In the words of **McDougall** the affective or the emotional aspect of instinct is inherited and therefore, no modification is possible through experience or learning. However, the perceptual and motivational aspects can be modified by experience or training or learning.

After **McDougall, William James** has offered some important views in this respect. **James** classified the major instincts in infants and adults. In his views crying, biting, moving and vocalizing are some of the major instincts. Likewise imitation, pugnacity, hunting, play, love, fear and jealousy are the major instincts in adults. Accordingly instincts were self-preservative and unlearned. Despite such nature of instincts, in the words of **James**, these were not blind as well

as invariable. Instincts were modifiable by habit.

Thus from the following perceptions of **Darwin, Freud, McDougal** and **William James**, it may be concluded that for the emergence of desirable qualities of man's character and personality instinctive activities should be rationalized. For better social life such activities should be rationalized according to the value system of societies. There lies the necessities of modification of instinctive activities. Psychologists have prescribed some more common methods or devices for the modifications of instinctive activities of the human individuals. They are (i) The use of pleasure and pain method or principle, (ii) The principle of disuse, (iii) The use of complete freedom, (iv) The repression method, (v) Substitution principle, (vi) Catharsis and (vii) Sublimation method.

(1) **The use of pleasure and pain :** The general tendency of man's activities are to reach the set goal to satisfy the felt needs. Man tries to repeat the pleasurable experiences or behaviour and avoid or eliminate or get rid of the painful experiences or behaviour.

Thus to reduce and discourage the effect of harmful instinct, i.e. instinctive reaction that violates the social norms of behaviour the pain principle, i.e. punishment may be given. Likewise the instinctive reactions that help to uplift the norms of behaviour may be encouraged by the principle of pleasure, i.e. by reward.

(2) **The Principle of Disuse :** Disuse principle emphasizes on the discouraging exercises. This means the process of blocking, diverting and non repetition of the harmful instincts. The combat instinct, for example may either be blocked by punishment or diverted by changing the play group.

(3) **The Use of Complete Freedom :** Complete freedom has special importance for self-learning. It was **Rousseau**, who put importance on discipline by natural consequences. This great naturalist believed that instincts are the native and natural tendencies of the human being which should be developed naturally without any external restrictions. Psycho-physical complexities may be created by the repression of instinctive urges which may again complicate the behavioural

manifestations. Thus, the principle of freedom should be applied for better and balanced development of personality.

(4) **The Repression Method :** Repression is a process by the help of which the unfulfilled desires may be forcefully driven back to the unconscious level of our mind. The unpleasant and harmful instinctive reactions may be controlled by repression. Repression is a process by the help of which controlled manifestation of instinctive reactions may be practised.

Psychologists are of the opinion that repression is a harmful means of the modification of instinctive reactions. If the volume of repression increases, psychic complexity may take place for which abnormality or various mental ailments may come to light. So, this method should be used carefully and thoughtfully.

(5) **Substitution Principles :** Substitution means the process of replacement. To avoid the harmful effect of instinctive reactions, such instincts may, instead of repression, be substituted. This helps to reduce the painful effect of non fulfillment of the

instinctive urges. This process gives a suitable outlet to satisfy and discharge instinctive urges in a pleasurable way without disturbing psychological needs.

(6) **Catharsis** : The term catharsis means 'to purge out' or 'to drive out'. This is a psychological term which means the purging out of the harmful effect of instinctive reactions. By the help of Catharsis the repressed instinctive urges may be driven out from the mind to keep its normal health alive. This is a clinical device for mental treatment by the help of which mental repression is reduced. For better manifestation of the mental energies play is one of the suitable means. This helps to maintain mental balance.

(7) **Sublimation Method** : Sublimation, in brief means the gratification of a frustrated motive via a substitute activity. **Ross** has defined the term as, 'sublimation is the word used to describe the process of redirecting an instinct from its primitive biological goal to one that is socially and individually upliftings' (Ross : 71). Sublimation is one of the methods by the help of which the instinctive reactions may be socialized.

Man is a social animal. Therefore man's instinctive reactions should be modified to help to encourage his/her social self. Without modification of instinctive reactions man's social nature can not be focused. So, to make man a social being in its true sense, modifications of the instinctive urges have the utmost significance.

EDUCATIONAL SIGNIFICANCE OF NEEDS, DRIVES MOTIVES AND INSTINCTS

Modification of human behaviour is one of the prime importance of every process of education. It has already been discussed that it is the intellectual activities and the power of reasoning which have differentiated man from the other lower class organisms. Therefore, without intellectual development and rationality man can not cross the limit of animality. Thus to understand individuality and individual differences needs, drives, motives and instinctive reactions should be thoroughly studied and analysed.

In the process of education the needs, drives, motives and instinctive urges have special significance. After birth all these, specially the in-

instinctive urges remain in the state of immaturity and imperfection. Manifestation of the instinctive urges takes place through the psycho-physical needs of the child. Needs generates motivations, and drives lead to the ultimate goals. The mental health and the personality of the child take its own shape according to the process of satisfaction of needs. For balanced emotional health and proper learning needs, drives, motives and instincts have prime importance. If the teachers know the individual need or wants of the children they can improve their learning and mental health. If they can gratify the motives of the children their emotional health will certainly be sound and they will be able to lead a happy life. If the curiosity or exploratory motives is well stimulated and satisfied, many new things and ideas may be discovered and developed. Constructive motive, self-display motive etc. are to be well stimulated and satisfied for the creation of new things and development of strong personalities.

Among all the instincts, some instincts like the curiosity, construction, acquisition, gregarious, self-as-

sertion, combat, mating or sex and laughter etc. have special educative value. These instincts are educationally very significant. Curiosity and construction instincts may be led towards discovery and development of new ideas and things. Children may be encouraged to collect rare materials and historical, cultural and scientific values among them may be encouraged by the help of acquisition of instinct. The feeling of belonging and the sense of self-importance may be encouraged by the help of gregarious instinct. Spirit of competition may be developed through curricular and co-curricular activities among children by the help of self-assertion instinct. Combat instinct may be channelised to socially acceptable channel by imparting training in boxing, wrestling, judo etc. Mating or sex instinct may be sublimated or redirected into a channel leading to individual and social welfare. Laughter may be encouraged in making learning joyful.

It was **McDougall** who considered all the instincts highly important because directly or indirectly they were considered to be "prime moves of all

activity”-and tend to determine “the ends of all activities and supply of driving power” (McDougall, 1908:44). This assertion of **McDougall** helps us to understand the educational significance of the instincts.

EMOTION

Emotion is one of the complex psycho-physical experiences of the living organism. It involves the body and as well as the mind. It is an acquired state of psycho-physical reactions to stimuli.

The word ‘**emotion**’ is derived from the Latin word ‘**emovare**’ which means ‘**distrub**’. Thus, the word emotion is used in psychology to describe a state of excitement in the organism. It is a special state of disturbance.

Dictionary has given the meaning of the term as any of the strong feelings of the human spirit, such as : love, hatred and grief, etc. **Anmol Dictionary of Education** has explained the term in a detailed way. According to the Dictionary emotion refers to complex state of heightened perception, bodily changes, attraction or repulsion, approach of withdrawal

behaviour. **A Concise Psychological Dictionary** has explained the term emotion as a psychic reflection in the form of immediate affective experience of the vital significance of phenomenon and situations caused by the relationship of their objective properties to the subject’s needs. In the course of evolution, emotion developed as a means for allowing living creatures to determine the biological significance of the states of their organisms and environmental effects.

The emotion represents affective feeling tone. It is characterized by inner adjustment, conditioned by the functioning of the automatic nervous system and arouse by the interaction between an external stimulus situation and the inner mental status (Crow and Crow 1963). Webster’s Dictionary (1963) has defined emotion as ‘the stirred-up state of the individual, as represented by a combination of factors.’ Thus emotion is a stirred-up or moved around state of the physique and mind of the individual. It involves or influences the physical and mental faculties of the living organism. ‘Emotion is an aroused state within an organism which may occur in re-

sponse to internal and external stimuli (Lefton, Lester A.P 132). The emotional state causes heavy changes to physio-chemical system of the physiology. The internal reactions become external at the time of emotional state. During the emotional state the breathing of the individuals becomes faster, heart beating rate increases, blood pressure increases, sound of the mouth becomes loud and quick, sweats and some times begins to tremble. Thus the physiological changes become very obvious at the time of emotional reactions. More complex and intense experience of affection is formed during emotions. There are some more common types of emotions. They are anger, fear, joy, sorrow etc.

CHARACTERISTICS OF MOTION

The main characteristics of emotion help to understand its nature. These are as the following :

- (1) Emotions are complex and affective mental states of the living organism.
- (2) Emotions are innate responses.
- (3) Emotions involve the whole body in their expression. They involve the glandular and visceral system of the physiology.
- (4) Human emotions are the product of socio-historical development and belong to processes of internal regulation of behaviour.
- (5) Emotions subjectively manifest various needs of the organism. Emotions always refers to some objects.
- (6) Emotions are the motivating properties which impel and direct a person toward actions. Thus emotions motivate and direct all activities designed to satisfy them.
- (7) Emotions involve feelings, impulses, and physiological reactions.
- (8) Emotions are individual experiences which depend on individual mental make-up.
- (9) Emotional reactions appear at all stages of the life of an organism, i.e. from beginning of life till death.
- (10) Emotional reactions persist for a long period of time. These are not easily removable; once these are aroused they persist. In such state even after the disappear-

ance of the emotional reactions, mood remains.

- (11) Emotions interfere with the exercise of judgements of the organism.
- (12) Emotions are easily conditioned.

Classifications of Emotion

From broader and common sense perceptions, emotion is classified as pleasant and unpleasant types. The emotional reactions or response which are agreeable of pleasing, say as for example tender emotion (love, tenderness, tender feeling) with which parental instinct has close relationship is called pleasant type of emotion. Examples of such emotions may be given as : Curiosity, elation, ownership, creativeness, amusement etc. On the other hand the emotional reactions or responses which are unagreeable or unpleasing say as for example, fear emotion (terror, fright, alarm) with which instinct of escape has relationship is called unpleasant type of emotion. Example of such emotions may be given as : anger, distress, subjection, loneliness etc. These two types of emotion fail to highlight the nature of variation of emotional

reactions or responses as a whole. It was **William McDougall** who offered a clear and broad classification of emotions. **They are as the following :**

(1) **Primary Emotion :** Primary emotions are those which are derived by the influence of a particular instinct. Such emotion has a definite instinctive tendency which is associated closely. In the words of McDougall primary emotion is an indicator of the instinctive impulse at work (McDougall:325). Example, of such emotion are : fear with which the instinct of escape is associated; lust with which the instinct of pairing is associated; appetite with which the instinct of food seeking is associated, etc.

(2) **Secondary or Blended Emotion :** Secondary emotions are also called blended emotions. When more than one emotions are combined or mixed to produce a result or reaction or response, such emotions are called secondary or blended emotions. When several emotions are combined towards the same result, such emotions are named as secondary or blended type of emotions. Combination of anger and disgust leads to the

feeling of hatred to a person. Likewise the combination of distress and subjection leads to the feeling of loneliness or isolation etc.

(3) **Derived Emotion** : Derived emotions may be called as the acquired emotions. Such type of emotions are neither fundamental or basic nor blended types. These are situational with which the past experiences or the future expectations of the individual have close relationship. Example of such type of emotions may be given as : confidence, faith, hope, etc.

Psychologists are of the opinion that there are few more common types of emotions which remain present in everybody. These are : anger, fear, joy and sorrow etc. Regarding the emotional life of the human child it was **J.B. Waston**, the founder of behaviourism in 1915, expressed important views. 'His longitudinal studies with emotional life of the infant and children were particularly famous. He observed a large number of children over a considerable length of time and concluded that there were three clear-cut identifiable emotions present at birth-fear, rage and love.

Thus for **Watson**, there is a sudden catching of the breath, sudden closing of the eyes, puckering of lips, etc. In rage response the body stiffens and striking movements of the hands and arms are found. In love the infants smile attempts at gurgling and cooing'.¹³

Instincts and Emotions

Instincts and emotions have close relationship. With every instinctive reaction there is the close relationship of an emotional reaction. It was **McDougall**, the chief exponent of the instinct theory who regarded the emotion as the, essential, unchanging aspect of every instinct. He ascribed a specific emotional reaction to all the instincts.

William James, the famous US philosopher and psychologist, maintained that the instincts tends us to work and emotion tends us to feel. Thus instinct urges the organism to act and behave in a certain way according to the situation or environment. Emotions are originated from the feelings of pleasure and pain from different experiences of the total situation.

Thus, though instincts and emotions seem to be the two different

sides of the same coin, there are some differences which may be mentioned as the following :

Instincts

- (1) Instincts motivate us to act.
- (2) Instincts are directed toward extrovert things, beings and objects.
- (3) Instincts stimulate psycho-physical reaction.
- (4) Instinctive reactions are universal.
- (5) Instinctive reactions are objective and depend upon the situations.

Emotion

- (1) Emotions motivate us to feel.
- (2) Emotions are directed to internal experiences, i.e. feelings.
- (3) Emotions are expressed through behaviours.
- (4) Emotional reactions may differ from organism to organism.
- (5) Emotional reactions are subjective as well as objective.

Emotion and Sentiment

The distinguishing point of emotion and sentiment may be discussed as the given below :

Emotion

- (1) Emotion is a 'stirred-up' state of feelings of an organism.
- (2) Emotion is something immediately experienced, a transitory passing state of mind of the organism.
- (3) Emotion is more concerned with the present situation of the organism.
- (4) Emotion is a fact of experience.
- (5) Emotion is an innate response of the organism.

Sentiment

- (1) Sentiment is an organized and regulated state of tendencies and attitudes of an organism.
- (2) Sentiment is permanent disposition, a more or less permanent attitude of mind of the organism.
- (3) Sentiment is more concerned with the past and present experience of the organism.
- (4) Sentiment is a fact of mental structure.
- (5) Sentiment is an acquired life experience.

Role of Emotions in Child's Life:

In every stage of human life the roles of emotions are very important.

Emotions play vital roles in the growth and development of our personality. Let us discuss about some vital emotions which play very important roles during infancy and childhood as well.

(1) The child and fear : Fear is an unpleasant emotion caused by the threat of danger, pain of harm. Fear means be afraid of. In the words of **J.B. Waston** (1878-1958) fear is the primary emotional reaction of the child. Psychologists have opined that 'from an early age all children are more or less, troubled by fear and some are so afraid that their freedom of action is seriously impaired. Adults too are often afraid, and many of them struggle with unresolved problems that are rooted directly or indirectly in their childhood fear'.¹⁴

Fear is regarded as sentry and first line of defence for the organism. The causes of fear may be the stimuli or the physical conditions of the organism.

(2) The child and Anger : Anger is the most commonest emotion which is frequently noticed infancy and childhood. It is a strong feeling of extreme displeasure. Psychologists are of the opinion that 'anger can be aroused in young children by forcible restraints, interference with movement, block of activities that are in progress, by anything that thwarts a child's wishes. Frequently, anger occurs as a response to an accumulation of annoyances. The younger the child, the more his anger. As he grows older, the conditions that cause anger include not only actual

ACTIVITY -1

Imagine and visualise yourself in the situations given below. Mention three instinctive reactions involved in each situation.

- (1) In examination you have passed in first division.
- (2) Your best friend has hurt you.
- (3) Someone has come to attack you.
- (4) You are angry.
- (5) You have faced a fearful situation.

Discuss your answer with the teacher and classmates.

bodily resistance, but also interference with his possession, thwarting of plans, purpose expectations and criticism of his/her ideas or faults, and anything that threatens cherished ideas he has about himself.¹⁵ **Goodenough** (1959) 'found infants responding with anger to minor physical discomforts, interference with physical activity and removal of attention, or in situation which arouse in connection with routine care such as dressing, bathing and the like'.¹⁶ Anger generally makes the child restless. It also leads the child towards violent manifestations of psycho-physical reactions or responses. Too much manifestations of anger have negative effect on the process of personality growth and development of the child.

(3) The child and Affection : One of the most important emotion of the organism is love or affection. Affection means a feeling of fondness or liking. Psychologists have opined that the need for affection of the child is an outgrowth of his helplessness. Another group of psychologists are of the opinion that the child's love for a particular person, matter, thing etc. is

a conditioned response. As for example the child loves his/her mother because of his/her love for milk. The child is self-centered. Because of selfishness the emotion of affection is strongly manifested in child's behaviour.

(4) The Child and Jealousy : What does Jealousy mean? When is jealousy forcefully occur? Jealousy is a term which is originated from old **'French' 'gelos'**. Jealousy very simply means envy. Envy, again means discontented longing for something belonging to another that one can not have. Jealousy is also that most commonest emotion of the child. It is very forceful within the age group of two to five years. Psychologists have expressed their views as, ' Jealousy, is closely related to anger in that the child is annoyed when he/she believes that his place in the affections of a loved one is being usurped by another. The most common cause of jealousy in the early childhood is the birth of a younger brother or sister whose helplessness require time and attention from the different members of the household. Thus the situation in which jealousy is aroused usually

is one in which other persons, objects, or conditions possess or share affection, honour or esteem which one desires for oneself.

When a child is jealous it means that he feels threatened and is insecure; he does not have confidence in his own merit and worth, but he acts as though the attention or affection someone gives to another means that he is being denied.¹ Before the stage of mental development the emotion of affection remains in dormant. As soon as the child achieves the stage of two the process of mental development becomes rapid as a result of which he/

she begins to realise his relationship with others. As a result the emotion of affection begins to become strong.

(5) **The Child and Hate** : Hate means very strong dislike. Hate is not regarded as the primary emotion of the child. Hate is the result of composition of many emotional reactions. Because of anger, fear, anxiety etc. the emotion of hate is manifested. Hate is generally manifested in negative feelings and because of this destructive and violent behavioural reactions appear. During infancy and childhood the influence of hate is not much more powerful.

ACTIVITY-2

Ask a cross-section of students about what they think the causes of fear, anger, love, jealousy and hate? Draw a comparison between what they say and what the text book tells you. What conclusion can you draw?

POINTS TO BE REMEMBER

- ❖ Human behaviour means the result of the Psycho-physical reactions to stimuli. It means every aspect of an individual's actions including thought, emotional and physical activities. Human behaviour covers everything a person feels, thinks and does.
- ❖ Need means the condition of lacking or wanting something necessary of very useful. Need signifies a lack or want of something which is very useful or desired.
- ❖ Drives are the driving forces of the human body.

- ❖ Instincts are the original or innate disposition of the living organisms. The original potentialities or tendencies or feelings such as self-preservation, aggression, inquiring, self-display, hunting, food-seeking etc. are clustered in a special term, i.e. instincts.
- ❖ The characteristics of instincts may be discussed as : instincts are the innate or inborn or inherited tendencies of the living organisms both man and animals have some common instincts; instincts constitute the psycho-physical aspects of a living being.
- ❖ Emotion is the strong feelings of the human spirit, such as : love, hatred and grief etc.
- ❖ The tendencies which do not have any specific emotion or any specific bodily behaviour are called Quasi-instincts. As for example : sympathy, suggestion, imitation, play and habit or routine etc.
- ❖ Psychologists have prescribed some more common methods or devices for the modifications of instinctive activities of the human individual. They are : the use of pleasure and pain method or principle, the principle of disuse, the use of complete freedom, the repression method, substitution principle, catharsis and sublimation method.

(B) HABIT– ITS IMPORTANCE, FORMATION AND DISSOLUTION OF BAD HABITS.

Introduction

We often listen to various discussions about the term habit. This term **habit** is originated from the Latin term '**habitus**'. '**Habitus**' means '**condition.**' Thus, in brief habit means something that a person does often. In other words habit is an action so often repeated as to become a fixed characteristic or tendency. Habit is fixed pattern of behaviour which is

formed as a result of repetition. The pattern of behaviour which becomes fixed because of repetition is mechanical. In the process of formation of habits the law of exercise plays an important role. Intentional and conscious repetition of action help to form habits. After several trials any action that are performed by an individual become permanent part of his/her self. Once it becomes permanent the requirement of continuous effort or exercise to perform the action becomes unnecessary. Thus, we can say

that habits are acquired by repeated exercise of the same activities. Habits are formed intentionally and in few cases unintentionally. Parallely they are also formed consciously and in few cases unconsciously as well.

You try to evaluate your habitual activities and try to remember how they were formed. Different habits like speaking, reading, playing, eating, walking, sleeping etc. are some of the commonest habits. You try to find out some such habitual activities of yourself and your friends and remember how these were formed and what effects these habits have laid on you and your friends.

Habits are automatic and mechanical activities of the human being. They reflect the nature of personalities of the individuals. Psychologist like **James** has expressed the importance of habit and said them as the second nature. **Moralists** and **Educationalists** have laid more stress on habit and expressed their views as, 'character is a bundle of habits'

Nature of Habit

The term nature means the inborn qualities or characteristics of a person or thing. Nature of habit means

the qualities or characteristics of habit. Habit manifests the personality traits of an individual. Habit indicates a special pattern of behaviour. In habitual behavioural pattern the influence of higher psychic potentialities, such as intelligence, thinking, judgement etc. is less significant.

Habitual activities are automatic. Such activities generally take place without any proper control. These habitual activities or works are done or taken place or happened without conscious thought. For the formation of habit, whether good or bad, repetition or exercise has the utmost necessity. In habitual activities the influence of personal will and expectation is not more powerful. Habits take place in same set of time, environment or situation. Habitual activities are mechanical, i.e. these are done without any serious thought.

Characteristics of Habit

You have already come to know about the concept and nature of habit. You try to practically understand all the important aspects of habit with the help of analysis of your own habitual activities. Such analysis and practical observation will certainly help

you to know the characteristics of habits. Psychologists and experts have explained the characteristics of habit as the given below :

- (1) Uniformity is one of the most important characteristic of habit. Habitual works are always uniform, i.e. they are always same in all class and at all times. You can see this characteristic in your handwriting, walking, speaking, eating, sitting, working etc.
- (2) Propensity is another characteristic of habit. Propensity means a tendency to behave in a certain way. In habitual works the tendency to behave in a certain way in all situations and cases are well noticed. You can observe this in your practical life, as for example in reading newspaper early in the morning, talking, performing different works in own family life etc. propensity can be found and experienced.
- (3) Facility is another characteristic. Facility, here indicates a natural ability to do something well and easily. Habit offers facility to perform different activities according to the natural abilities of the individuals.

- (4) Independence of attention is another important characteristic of habit. In habitual activities the individuals are free to accomplish their works according to their own speed or pace, power, confidence and necessity. Think about your walking habit. You have complete freedom to walk according to your own capacity, speed, necessity etc.

Above all these there are some other important characteristics of habit. They may be discussed as the given below :

- (i) Habits make man mechanical in performing or accomplishing different works.
- (ii) Habits reflect the personality traits of an individual.
- (iii) Habits help to increase the performance level of an individual's works.
- (iv) Habits decrease the creativity level of an individual.
- (v) Habits help to shape a special pattern of behaviour.
- (vi) Habits decrease the imaginative power of an individual.

Formation of good habits and dissolution of bad habits

From your practical experience of life you can judge yourself what is meant by the formation of good habits and dissolution of bad ones. The term formation means the action of forming or the process of being formed. Parallely the dissolution means the action of dissolving or decomposing. Good habits mean those habits which have positive influence on the individual self. Whereas bad habits mean those habits which have negative influence on the individual. We have already mentioned that to form a habit, whether good or bad trial or exercise or practice or repetition has very important roles. More or less most of the habits are formed with the help of intentional or conscious repetition of the same event, activity or nature. Repetition a good device of learning. Sometimes unintentional or unconscious repetition also help to form habits.

Let us discuss some steps which help to form good habits and dissolve bad habits.

(i) For the formation good habits firm determination and confidence have the utmost necessity.

- (ii) The application of will power in the formation of good habit has the utmost necessity. Without any break and lack of exercise and firmness works are to be accomplished.
- (iii) Formation of habit needs active participation. For active participation there is the need of determination.
- (iv) Practice or repetition has the utmost necessity. Practice makes a man perfect. Once perfection is achieved habit is formed in a more systematic way.

You know from your personal life experiences that it is very difficult to form a good habit and parallely to dissolve had habit. Once a particular habit is formed it gets difficult to dissolve the same. However for the dissolution of bad habits the steps that are to be taken may be discussed as given below :

- (i) For the dissolution of bad habits firm determination and discipline have the utmost importance. Harmful affects of bad habits should be well realised and the stimuli responsible for them should be identified so that strong

- resolution may be taken not to pay any attention towards such stimuli.
- (ii) Without any delay immediate steps to avoid bad habits should be taken. A good habit or a substitute good habit should be formed to counter the bad or harmful habit or habits.
- (iii) Practice or repetition has the utmost necessity to remove bad habits and form good habits. **Thorndike's** law of effect which prescribes reward and punishment to encourage good impulses and discourage bad or evil impulses should be applied in practice. To help to eliminate bad habit punishment should be given.
- (iv) The application of will power in the process of elimination of bad habit has the utmost necessity. To develop such will power or power of control over oneself yoga and, meditation may be practised.

- (v) Practice makes a man perfect. Thus, for perfection, with the help of elimination of bad habit attention may be diverted towards good habits. The evil impact of bad habits should always be kept in mind.

Habit, Reflex and Instinctive Activities

You have already studied in detail about instincts and habit. The role of instincts and habits have also been studied by you. Do you know what does reflex mean? Can you explain from your personal experience how habit, reflex and instinctive activities are interlinked? The term reflex has been originated from the Latin term '**reflexus**' which means '**a bending back**'. Reflex means an action done without conscious thought as a response to something. A Concise Psychological Dictionary (ed. Petrovsky, A. V. & Yaroshevesky, M.G-1985) has explained the term reflex as 'a natural response of an organism, by

ACTIVITY-3

Discuss with your class-mates the steps that are to be taken for the formation of good habits and dissolution of bad habits.

the nervous system, to an irritant. The reflex principle of brain activity was formulated by the French philosopher **Rene Descartes**, even though the term Reflex itself came to be used in science later, following the publication of the works of **Thomas Willis**, a British neurologist, and those of **Georg Willis**, a British neurologist and those of **Georg Prochaska, a Czech Physiologist**. Reflexes are commonly classified into unconditioned and conditioned.

The similarities between the reflex and instinctive activities are— both are native. Both reflex and instincts are inherited potentialities which prompt the living organism towards various psycho-physical activities, i.e. actions. In comparison to reflex and instinctive actions habitual actions are different. These are not natural or innate. Habitual works or activities are acquired or learned activities. These are acquired or learned through practice under unchanged or stereotyped situations or circumstances. There are some specific similarities among all the three types of activities, i.e. instinctive, reflexive and habitual

activities. All these activities are automatic, prompt, uniform and fixed. Likewise the point of dissimilarity and difference among them lies in manifestation of these activities. Reflex actions are to some extent spontaneous where no mental or psychic processes have any role to play. These are physical reactions towards some stimuli. On the other hand habitual and instinctive activities involve psychic and mental processes. Above all this the other important difference is that reflex actions can not be modified but instinctive and habitual actions have the scope and possibility of modification to a certain point or degree.

Role of Family and Teachers in the Formation of Good Habits and Dissolution of Bad Habits

You know it well how your family helps you in developing your personality. Not only your family but also your teachers have certain roles in the formation of your personality. People say that home is the best place of education and mother is the best teacher of the child. Parallely it is also said

by people that teachers are the makers of man. Both family and teachers play the under mentioned roles in the process of formation and dissolution of good and bad or harmful habits as well.

1. Family members and teachers occupy a special place in the minds of the young children. Both family members and teachers can keep close contact and with full co-operation between home and the school all good things may be taught to them.
2. Children's minds are very receptive. They may be motivated towards all good things and deeds by examples and practice.
3. Children may be motivated towards all good things and deeds to develop confidence and firmness to honour the basic values, i.e. truth, beauty and goodness. Values may be taught with the help of practical examples.
4. Children should always be encouraged and motivated towards all good deeds and things. For good things and deeds they are to be rewarded and for evil or wrong deeds they are to be punished. Positive view towards life should at any cost be developed. Negative thought should always be discouraged.
5. Special importance should be given on practice or exercise of all good things, deeds thoughts etc. to make them permanent.

EXERCISE

1. Define human behaviour. On which aspects human behaviour base?
2. Define need. Explain the educational implications of needs.
3. Define drives. Determine the educational implications of drives.
4. What do you mean by motivation?
5. Mention the needs of a child.
6. Explain the relationship of human behaviour with needs.
7. What do you mean by instinct? Mention four characteristics of instinct.
8. Mention any eight instinct which McDougall enlisted in his list of instinct.
9. Can instinct be modified? Mention any five methods of modification of instincts.

10. Write short notes :
(a) Needs (b) Drives (c) Instincts (d) Habit (e) Reflex action
11. Determine the educational implications of instincts.
12. Write short notes :
(a) Repression (b) Sublimation (c) Disuse (d) Catharsis
13. What is emotion? Define emotion.
14. Mention any four characteristics of emotion.
15. From which language the term emotion is derived? What is the original term?
16. Mention names of the emotion related with the undermentioned instincts-
(a) Curiosity (b) Submission (c) Instinct of escape
(d) Repulsion (e) Parental
17. Differentiate between emotion and instinct.
18. What is habit? Discuss its chief characteristics.
19. Explain the principles of formation of habit? How will you dissolve bad habits?
20. What are the principles of habit formation? Explain them with proper examples.
21. What are the characteristics of habit? How can good habits be formed?

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CHAPTER-7

PRIMARY EDUCATION IN INDIA AND ASSAM

Contents

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Total Literacy Campaign (TLC)

District Primary Education
Programme (DPEP)
Education as Right
Sarva Siksha Abhiyan

Objectives

After studying the chapter you will be able to :

- ☞ Know the primary education system of ancient India and Assam.
- ☞ Explain the development of education in India and Assam.
- ☞ Know about the contributions of missionaries in India and Assam.
- ☞ Know about the development of primary education during British period.
- ☞ Discuss the measures of universalisation of elementary education. Total Literacy Campaign (TLC), District Primary Education Programme (DPEP), Sarva Siksha Abhiyan and Education as Right.
- ☞ Know the legislative provisions on primary education of India and Assam.

Introduction

Primary education constitutes a very important stage of the entire structure of education. It is at this stage the preparatory education of the child starts. It is the foundation of the entire educational ladder. It is this stage of education that is responsible for spreading mass literacy. Mass literacy is a basic requirement for economic development, modernization of the social structure and the effective functioning of democratic institutions. Hence primary education deserves the highest priority for raising the competence of the average worker and for increasing national productivity.

This chapter helps us to understand the development of primary education in India and Assam from ancient period to post independence period. Here we have included indigenous educational institutions, contributions of missionaries in India and Assam, Charter act of 1813, Macaulay's Minute, Woods Despatch of 1854, Hunter Commission 1882, Curzon's Education Policy, Gopal Krishna Gokhale's Bill 1910-11, Gandhiji's Basic Education, Assam Primary Education Act 1926 and constitutional provisions, TLC, DPEP,

SSA with education as right. The constitution of independent India provides for free and compulsory education for all children upto the age of 14 years. This chapter also helps us to understand the various measures adopted from time to time to fulfil the directive in Article 45 of our constitution.

(A) Indigenous System of Education

India is a culturally rich country. Before the British rule in India there were some indigenous educational institutions. With the help of these indigenous educational institutions education was spread in the society. Particularly the primary education was spread in the society to develop the socio-economic and cultural need of the people. The indigenous educational institutions occupied a great place in the ancient Indian society. During the British rule in India some surveys took place to know the conditions and situations of the indigenous educational institutions. The first survey was made by Sir Thomas Munro in the year 1822 to know the state of indigenous education in Madras. Mount Stuart Elphinstone, the Governor of Bombay in the year 1829 instituted an enquiry into the education of the Bombay province, but his

report was not satisfactory. Another study was made by William Bentinck in 1835. Lower Ganges Valley was very rich in education and it had many cultural and educational institutions. A great number of indigenous institutions like 'Pathshala' were situated there. North west province of Agra was also rich in indigenous system of education. During the medieval period Agra became the centre place of ancient education. During this time Assam was under the Ahom rule. Different types of indigenous educational institutions were established in Assam by the Local Pundits, Saints and Adhyapakas.

The Indian Education Commission of 1882 studied the state of indigenous education and recommended the following :

1. These schools deserve encouragement and incorporation in the official system of education.
2. District and Municipal Boards should be more sympathetic to the indigenous schools.
3. The system of payment by results should be adopted in dealing with indigenous schools.

Indigenous education was spread in the society through the institutions like, Gurukula, Pathshala, Tol, Satra,

Maktab and Madrassa. It was categorised as :

- (a) Indigenous elementary schools
- (b) New type of primary schools
- (c) Private or Family schools
- (d) Special indigenous institution

(B) Indigenous Educational Institutions :

Gurukula

During the Vedic period, the students used to attain education while living with the Acharya or Guru (teacher) in his house which is known as Gurukula. The students lived in the Gurukula as a member of the gurus family. In this system curriculum included subjects like– Vedas, History, Puranas, Grammar, Mathematics, Brahmavidya, Astronomy etc. The method of instruction was verbal. In verbal learning the pupil used to listen to the guru with due attention. The teacher enjoyed a predominant place not only in his Gurukula but in the entire society. He was regarded as a great guide for all. To his pupils he showered all love and affection and used to teach them whatever he knew in an atmosphere of free discussion. Pupil while living in Ashrama used to beg alms, prepare fire for yajna-kund and look after the animals and other

fellow beings. Begging of alms was meant to teach the students humility and politeness. Preparing of fire for the yajna signified mental development and rearing up Ashrama animals were meant to make the students self-dependent.

In Gurukula system there was no uniform rule for the duration education. There was instances of many students staying in the Ashrama for more than thirty years. Pupils from both poor and rich family were sent to the Guru's house. Every student was like the son of the Guru. Arrangement for food and living place for the student was the responsibility of the Guru. The teacher used to nurse the student when he fell ill.

Pathsala

Pathsala is one of the significant indigenous institutions of learning. It was the main centre of education for Hindu children. Pathsala used to give religious education through classical language by the Pundits. The medium of instruction of pathsala was Sanskrit. This type of indigenous institution of learning were staffed by the learned and renowned teachers.

The teacher taught the students attentively because it was their religious duty and responsibility. Pathsala institutions were mostly located or situated in the temple or Mandir. Some of the Pathsalas had their own buildings. The rulers of the state helped the pathsalas financially and encouraged its activities. Some of the rich and religious persons also gave their financial help and encouraged the management of the Pathsala. The rulers of the state did not interfere in the management and administration of the Pathsala. The salary of the teachers of Pathsala was very low. Lodging and boarding facilities were provided to the students by the institution. Some of the students were paid fees voluntarily though there was no system of paying fees. The chief objective of the Pathsalas was to create the pundits in the society who might undertake intellectual activities. A few people were benefited by the pathsala institution. It was not the institutions of general masses, because its character was exclusive, attitude was conservative and methods of teaching was

individualistic. It had not got more encouragement from all the members of the society.

Tols

Among the indigenous educational institutions Tols are significant in nature. Tols are established in the society to spread Sanskrit education. Tols are known as Sanskrit schools. Tols are still fairly numerous in Assam, Bengal, Bihar and Uttar Pradesh. From ancient time it has a great fame in field of traditional education till now. From very early times, Tols have enjoyed grants of land, on which their teachers and pupils sustained. During the Zamindari system it was prospered our society. The Adhyapak or Village Pundits used to arrange for the free boarding, lodging and clothing of his pupils. They collect the necessary funds by raising subscriptions at chief fairs and festivals and from rich persons. Tols are the Agrahara type of indigenous educational institution

Usually the Adhyapak or village Pundit used the attached house for teaching purpose. They had built some huts for residential purpose of their pupils. Huts were centred round the 'school house' or Tol. Each of the Tol enrolls about 25 pupils for teaching purpose. The duration of the

course usually was six to eight year. It was the centre of free education. Learned pundits of our ancient society have always been anxious to impart education free to deserving pupils irrespective of their own financial condition. Even today this tradition exists in some of the ancient centres of India.

Tols are the famous centre of indigenous system of education. Presently government has managed this type of institution for the preservation of ancient culture and tradion. We can mention here the name of some tols in Assam. They are Dhireswaracharya Satuspathi (Pandula), Punyashram Satuspathi (Barmurikona), Karebari Sanskrit Tol (Karebari) etc.

Satra

Satra is one of special indigenous social institution or Assam. It is known as 'Satra' of 'Satra institution' Mahapurush Sankardeva, the Vaishnava saint of Assam, established 'Satra' institution to fulfil the social need of the general masses. It is the result of Vaishnave movement of Assam. 'Satras' are the greatest contribution of Sankardeva and his

active spiritual life. The 'Satria' art and culture spread out to the society through the Satra institution. In our present society also it has occupied an important place of honour. It is one of the centre points of ancient culture and tradition. As a result of the 'Satra' institution a concept of 'Satria Samaz and Sanskriti' established in our present society. During the time of Vaishnavite movement the society of Assam and the social trend completely became 'Satra Centric'. The general masses of the society and the family of the kings helped in the development of Satra institutions. Satradhikar was the pivot of the management. But the Ahom rulers appoint one officer of special duty to look after the management of Satra institution. He was named as 'Satria Barua'. Satra institutions are the chief centre of Assamese culture. Vaona-Sabah, dramatic performance, classical dances are the main features of the cultural activities of the Satra. Regularly the 'Satra' celebrates Srikrishna Deul Utsab, Rash Jatra etc. and people are united through these functions.

Satra institutions contributed immensely to the spread of education of

Arts and Culture. So we can say that it is one of the special types of indigenous educational institution. There are many Satra institutions in the different places of Assam. We can mention here the name of some of them. They are Kamalabari Satra, Garmur Satra, Bengena Ati Satra, Auniati Satra, Patbausi Satra, Paneri Satra etc. Satras are the treasury of Assamese as well as Mahapurushia (Vaishnava) Art and Culture.

Maktab

Maktab is an indigenous institution of primary education. The aim of Muslim primary education was to teach the pupil knowledge of the alphabet and religious prayer. It was attached to a mosque. The content of education given in the 'Maktabs' had been very different in different places. Usually when the Muslim people built a Mosque or Masjid the building of the Maktab was also constructed along with the mosque. Maktab is the chief institution for primary education of Islamic faith. Some of rich people appoint private teacher to educate their children in their house. But generally Muslim children are admitted in the Maktab

for Primary education. The term 'Maktab' is derived from Arabic term 'Kutub'. Kutub means a place where writing is taught. The centre point of education was 'Maulabi' of the mosque.

The system of admission to the Maktab was special in nature. The admission ceremony was known as 'Bismillah'. It was like the ceremony of 'Upanayana' or 'Vidyarambha' of Brahmanical system of education. The age of admission was four years four months and four days. They are taught to read and sometimes to write in Arabic and in Persian. Special attention was paid to the correctness of pronunciation. The children of the general masses also received education in Maktab, besides the princes. Some of the Hindu children also learnt Persian in the Maktab. Teachers of the Maktab paid individual attention to the students.

Madrassa or Madrasah

Madrassa is an indigenous institution of Islamic higher learning. In the medieval period high level Islamic education was imparted in the Madrassa. This type of institution are generally attached to Mosque or

Masjid. Eminent scholars of muslim education used to deliver their lecture in Madrassa. Teaching works were conducted by the famous teachers of the state. Teachers were usually appointed by the state. Some of the teachers were appointed by the enthusiastic and altruistic rich persons. After completion of the primary education in Maktab students were eligible for admission to Madrassa. There was no formal ceremony of admission Madrassa. Generally Madrassas were managed by the Private Managing Body. Some of the Madrassas were managed by respectable benefactors. Madrassa were financed by state authority but at that time there was no State Department of Education.

In some Madrassa there were hostel facilities also. Government provided for the lodging and boarding of the students in hostels. All the emperors or Muslim rulers were not interested to spend money from Government or State Treasury. So sometimes Madrassa had faced financial crisis also. Some of the Madrassas rose to the status of universities. Higher education were imparted to the students

under two categories. One was Secular and other was Religious. The curriculum of Madrassa included subjects like Arabic, grammar, prose, literature, logic, philosophy, law, astrology, arithmetic, history, geography, medicine, agriculture and composition etc. After completion of the higher education students were appointed in high and honourable posts under the state. It encouraged the Hindu youths for higher learning. During the reign of Akbar the curriculum of education changed into a new direction. He adopted the policy of religious tolerance. Akbar established colleges for the Hindu youth where they were taught Hindu religion, philosophy and literature along with Persian.

‘Monitorial System’ or ‘Bell System’

During the reign of East India Company Missionary activities sprang up in different places of India. With the spread of christianity they had spread education to the christian children. They had established schools in different places. In the year 1786 Mrs. Campbell established a

‘Female Orphan Asylum’ at Madras for the building where the Nawab of Arcot had made liberal endowments. It was maintained both by the charity of the public and grants of the government. Another similar Asylum for male orphans had also been founded. The first experiment in ‘Monitorial system’ had been performed in this Asylum. One monitor was appointed to perform teaching work. He was the senior expert student of the school. There were scarcity of teachers in the missionary schools. To minimise the scarcity of teachers this trend was introduced in the schools. This system was known as ‘Monitorial system’. This system was introduced by Dr. Andrew Bell, the Superintendent of Orphan Boys Charity School. After his name it was called ‘Bells’ system or ‘Bell Pratha’. This system of teaching also continued in England for some times. During the time of ‘Industrial Revolution’ Robert Owen stressed on this system in the education of the children of factory workers. Presently this system of teaching continues in our society particularly in single teacher school.

Contribution of Missionaries

The religious missionaries had started coming to India in the last part of 15th Century A D. In 1498 Vasco-da-Gama, a Portugese came to India. The advent of the missionaries introduced a new trend in Indian society. During the company rule the Christian missionary played the most significant role in the socio-cultural development of India. East India Company came to India to develop their business organisation, so they were not interested in the education of the Indians. The East India Company, established in the year 1600 and flourished their trade in India. Later on, the company took advantage of the political weakness of the country. As a result of the war engagements company succeeded to establish her empire in India. Though the company established their empire in India they were not interested to spread education to the Indian people. At that time the missionaries were busy in England in educational work. The Court of Directors for the first time agreed to allow missionaries to embark their ship in the year 1659. The main objective of the missionaries were to

devote themselves in evangelical work. The company renewed their charter in the year 1694. At that time Parliament inserted one section which directed the Company Directors to maintain the ministers of different religion in their factories, one of whose function was to instruct the Gentoos that shall be the servants or slaves of the same company or of their agents, in the Protestant religion.

Missionaries came to the three Presidency towns to look after the education of the Christian children, and the children of Anglo Indians. They established charity schools to meet of Anglo Indian children. The first charity school was established in Madras in the year 1715. Another charity school was established by the missionaries in Bombay in the year 1718-19. The Calcutta charity school was established by the missionaries sometimes between 1720-1731. The East India Company had assisted these three charity schools. During the last part of 18th Century missionaries established two asylums in Madras. One for males and other for females.

There were two reasons of the establishment of schools in India. First

reason was the early converts came from the lowest class of the Hindu society. Education was needed for their socio-economic and cultural development. Second reason was, through their schools the missionaries would get wider scope to come into contact with the general masses. It was helpful for them to convert the indigenous people.

Missionary Activities in South India : The early missionary activities were developed in South India. We can mention here the name of Danish missionaries. The Danish missionaries did considerable missionary and educational activities in Madras throughout the 18th Century. The members of the Danish missionaries were Ziegenbalg, Grundler, Kierander, Plustschau and Schwartz. They were helped by the court of Directors and the 'Christian Mission Committee'. Among them Ziegenbalg and Plustchau learnt Tamil and Portuguese and extended the field of their activities upto Tanjore, Madras, Tinevali and Trichinopoly. Through education they converted 50,000 people into Baptist by religious conversion. They

established several elementary schools for the Muslim also. Ziegenbalg translated the famous Bible into Tamil language and wrote the 'Tamil Grammar'. Schwartz translated the Bible into Telegu language and he had compiled 'Tamil dictionary'.

Conflicts between Missionary and E.I.C. : The missionary activities continued smoothly upto 1765. The company assisted and gave so much encouragement to the missionaries upto 1765. But after 1765 the attitude of the company had suddenly changed and company became hostile towards the missionaries. The company's political power began to grow. It became more and more particular to maintain religious neutrality and to sever all connections with missionary enterprise. But towards the end on 18th Century the company introduced change in its policy, imposed restrictions upon the activities of the missionaries and followed it strictly at least in northern part of India.

Missionary Activities in Bengal : Missionary activities flourished in Bengal in a great manner.

Kernander the famous Danish missionary had contributed immensely in this respect. He was invited by Lord Clive to Calcutta. Kernander established a charity school in Calcutta in the year 1758. Kernander was followed by Dr. Carey. Dr. Carey was a member of the Baptist Mission Society. He arrived Calcutta in 1793. In 1799 'Ward' and 'Marshman' also accompanied him. They want to spread christianity as well as education to the people of North Bengal. But company did not permit them to do so. 'Carey', 'Ward' and 'Marshman' reached 'Serampore' and activated themselves in their missionary work. They were called as '**Serampore Trio**'. They kept themselves busy in proselytizing work and established several schools for boys and girls at Serampore, Calcutta and other neighbouring places. In the year 1794 Carey opened a school at Dinajpore and thought of establishing another at Jasore. In 1810, for the education of the indigent christians he organised the 'Calcutta Benovolent Society' with the help of Marshman.

Company had renewed their charter in 1813. After passing the charter

Act missionary activity was intensified in both evangelical and educational fields. Among the missionary societies, engaged in India the following deserve special mention, the London Missionary Society, the General Baptist Mission Society, the Church Mission Society, the Wesleyan Mission Society and the Scottish Mission Society. During 1813 to 1833 some special activities were completed by the different Mission society in India.

Serampore Trio : 'Serampore Trio' was a unit of christian missionaries. The Baptist Mission Society spread christianity as well as education in the different places of Bengal. They came to Bengal from the 'Trencober' of Madras to develop the missionary activities. The main Baptist missionaries were Carey, Ward and Marshman. They were called 'Serampore Trio'. Carey, Ward and Marshman selected a village named 'Serampore' at a distance of about 13 miles towards the north of Calcutta as their centre. Carey was the religious preacher, Ward was the Press compositor and Marshman was the school teacher.

Contributions of Missionaries in Assam : Assam came under the British rule as a result of the famous ‘Treaty of Yandaboo’ in 1826. A unit of Serampore Mission Society entered in Assam in the year 1829. They established a centre in Guwahati. The missionaries did different kinds of work in Assam. Their educational activities were most attractive and stood as a monument in the field of education in Assam. American Baptist Mission Society had sent one unit to

Assam under the leadership of ‘Nathan Brown’ and ‘Oliver Cutter’ in the year 1844. They had spread christianity and education near ‘Sadia’. Dr. Miles Bronson was also one of the famous missionary. He had showed his wisdom and sacrifice for the betterment of the society of Assam. Specially he had served in ‘Jaipur’ of upper Assam. The Missionaries established nearly 14 schools in Sibsagar area. The Welsh Missionary Society started a number

POINTS TO REMEMBER

India is a culturally rich country. In ancient India there were no well organized school system.

- * During the Vedic period the student used to attain education while living with the Acharya or Guru in his house known a “Guerukula”,
- * Pathsalas and Tols were the significant Indigenous Institute of learning for the Hindu children.
- * Maktab and Madrassas were the educational institutions for the Muslims.
- * The Missionaries took different steps for the progress of education in India. Monitorial system was one of the important method of education. Though the chief aim of the missionaries was to propagate their religion yet the they spread education in different areas of India including Madras, Bengal, Mumbai and Assam.

ACTIVITY-1

1. Write about Indigenous Education in India.
2. Mention the name of the institutions of Indigenous Education.
3. Who was Dr. Andrew Bell? What system was introduced by him?
4. Who were the members of ‘Serampore Trio’?

of school in different places of Khasia-Jayantia Hills, Garo Hills, Darrang districe and Nowgong district. As a result of the demand of Bengali resident of Assam Bengali language became the language of the Courts of Assam in 1836. But the missionaries of Assam helped in the removal of Bangali language from the courts of Assam in the year 1873. The first Assamese newspaper 'Arunodaya' was published by a missionary society for the development of Assamese language. The missionaries entered into the remote areas of Assam, hills and plain for their benevolent work. They learnt Assamese language to know the mind of Assamese people. The Baptist Mission Society established some centres in Shillong, Sibsagar, Guwahati, Nowgong and Jorhat. The first Anglo-Assamese Dictionary (Dictionary in Assamese and English) was also written and published by the missionaries. They had brought one printing press and translated the Bible in Assamese language. Again the first 'Grammar of Assamese language' written by the missionaries. Besides christianity and educational work (the

knowledge of 3 R's. Reading Writing and Arithmetic) they gave instruction of some industrial arts also. In this case the activities of Miles Bronson was highly mentionable. He had taught Naga Boys about the 3 R's. and the technique of manufacturing tea and salt. Though their chief objective was to spread the christianity, they helped us in our educational and social development.

(C) Modern Period

The Charter Act of 1813

The Charter Act of 1813 was one of the important acts of the history of Indian education. East India Company showed the hostile attitude towards the Missionaries. This hostile attituded of the company gave rise to great agitation both in India and in England in favour of the Missionaries. Wilber Force and Charles Grant fought vigorously in order to persuade the parliament to legislate on the matter and to give necessary freedom and assistance to the missionaries. The agitation made the issue of Indian education a momentous and controversial one. British Parliament renewed the Charter of the E.I.C. in the year 1813. When the charter was

issued, some special clauses concerning Indian education had been added to it. The Charter Act of 1813 empowered the missionaries to spread education in India. The education of the Indian people was included within the duties of the company and a comparatively large amount was allotted for educational activities. According to Charter Act of 1813 the company had partly undertaken the responsibility of education in India. In the Charter Act 1813 a clause was annexed to the effect “that a sum of not less than one lac of rupees in each year shall be set apart and applied to the revival and improvement of literature and the encouragement of the learned natives of India and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories in India.” This clause laid the foundation of state educational system in India. The Charter Act of 1813 was published due to the efforts of ‘Charles Grant’ and ‘Wilber Force’ helped immensely in getting this idea accepted. The Charter Act of 1813 gave a new direction to the Indian education. So some of the people regard ‘Charles

Grant’ as the father of modern education in India.

Anglicist Classicist Controversy

Although Charter Act of 1813 was the first act through which the education system was formally laid down in India, but it had created a controversy between the anglicist and classicist on the medium of instruction. And also the Charter Act of 1813 did not clarify about the objectives of education and the methods for improvement of literature of the learned natives in India. The Charter Act had given the stress on allotting the one lac rupees only, no specific regulations was granted for establishing the schools and colleges in India. The controversy arose mainly for the following reasons :

Regarding the way of spending the money for education, there was a controversy between anglicist and classicist in terms of aims of education, agencies of education, medium of instruction and method to be adopted for spread of education in India.

Macaulay’s Minute

As a president of General Committee of Public Instruction, Lord

Macaulay wrote a minute on 2nd February 1835, where he made the conclusion regarding the controversy. Lord Macaulay stressed on the implementation of English language as a medium of instruction through his minute. According to him, English as a medium of instruction was the best, because rendering the degrees (to some great Indians) would be possible by conveying modern and scientific knowledge to the common Indians. Macaulay's opinion was that the public mind of India may expand under the English system and through the English language it may educate the people for a better government. In the minute, Macaulay wrote, "We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons, Indian in blood and colour, but English in tastes, in opinions, in morals and in intellects." Thus, from this minute, Macaulay anglicized the education in India as a whole due to getting benefits in their business policy. Actually, the Government of East India Company wanted to educate some great Indians for the profits in their business

through the **Downward Filtration Theory**. The Downward Filtration Theory means the education was provided to a small portion of the people and through them, education was conveyed to the masses. Hence, through this theory the minute did partiality by giving education to some favoured persons as they like to engage them in their business policy.

In his minute, Macaulay criticized the oriental learning as 'a single shelf of good European library was worth the whole native literature of India and Arabia.' Macaulay believed that English should be introduced because it is a language of ruling class and also the familiarity has been gained by higher classes of Indians.

Wood's Despatch of 1854

The Despatch of 1854 was one of the great landmarks of the history of Indian Education. East India Company had renewed their charter in the year 1853. Till 1853 the company was not clear about the education of the Indians. But later on, it was felt that education of the Indians would be of a great help to the Britishers. Therefore, the Court of

Directors took interest to publish an Educational Despatch for the improvement of Indian education. A committee was constituted under the chairmanship of Sir Charles Wood for a comprehensive survey of the total field of Indian education. After conducting the survey Sir Charles Wood prepared a report which was submitted on July 19, 1854. Charles Wood was the person who introduced the Despatch of 1854. It was popularly known as Wood's Despatch.

The main aim of Woods Despatch was to spread education throughout the country.

Recommendations of Wood's Despatch : The Despatch of 1854 recommended that :

Accepting Responsibility : It was accepted in the Despatch that the responsibility of educating Indians was that of British government.

Department of Education : The Despatch recommended for the creation of a Department of education in each of the five provinces. This department was to be placed under an important officer called the Director of Public Instruction.

Establishment of Universities : The Despatch recommended to set up Universities in the Presidency towns of Calcutta, Bombay and Madras. The newly established Universities were to follow the pattern of London University, which was then an examining body. If necessary, the universities should be set up at other places also. As a result the universities were set up.

Medium of Instruction : The medium of instruction of education in India would be English. The Despatch upheld the view of Lord Macaulay.

Establishment of Graded Schools : The Despatch proposed to set up a network of graded institutions spread over throughout the country.

System of Grants in Aid : The Despatch adopted the policy of giving financial assistance in the form of grant-in-aid to the institutions managed by private bodies of organisations.

Expansion of Education : The Despatch rejected the Downward Filtration Theory. It also realised that western education was good for public as such it recommended the opening of more schools for the public.

Training of Teachers : Trained teachers for school is a must. The Despatch advocated the need for establishing different types of training institutions and for giving stipends to teachers under training.

Professional Education : The Despatch recommended that encouragement would be given to professional education.

Women Education : It sympathised on the women.

Muslim Education : About Muslim education the despatch insisted a policy of strict neutrality in education.

Encouragement of Indigenous Institutions : More emphasis should be laid on the development of indigenous schools for the spread of primary education.

Other recommendation : The Despatch emphasised on employment for the educated Indian, comprehensive scholarship system, inspection of schools, provision of collecting school fees from the pupils, development of Indian languages, etc.

Criticism : The Despatch of 1854 remains one of the most significant

documents in the history of Indian education. It was for the first time that comprehensive scheme encompassing all the major aspects of Indian education was presented. The Despatch inaugurated a new era of organized education in this country. Despatch recognised that education is a state responsibility and so government should take effective measures and make liberal grants for the growth of higher as well as primary education. It has a great importance in the field of education for its valuable suggestions and recommendations. Due to its noteworthy recommendations the Despatch of 1854 was known as “the Magna Carta of Indian education”. The original ‘Magna carta’ of the British history plays the most significant role during the reign of King John. Like this, Despatch of 1854 played the same type of role in the history of Indian education.

Hunter Commission 1882

Indian Education Commission was appointed by Lord Ripon, the Governor General of India, on 3rd February, 1882. Sir William Hunter was the Chairman of this Commission. He was the member of Viceroy’s Executive

Council. After his name this commission is popularly known as Hunter Commission. This was the first Education Commission of British India. The Commission had twenty members, some of whom were Indians. The Indian members were Syed Mahmud, Anand Mohan Basu, P. R. Mudaliar, Hazi Gulam, K. T. Talang, Maharaj J. M. Tagore and Bhudev Mukherji. Dr. Miller was the missionaries representative of the commission. The secretary of the commission was B. L. Rice, the D.P.I. of Mysore. The main objectives of this commission were to review the conditions of Indian education and to give necessary suggestions for its development. The commission has suggested and recommended differently on Primary, Secondary and Higher Education. We will discuss here only about the primary education.

Recommendations on Primary Education : Indian Education Commission studied the problems of primary education from every angle and gave elaborate suggestions. Elementary education was then imparted through two agencies :

1. Indigenous Elementary Schools and
 2. New Type of Primary Schools
- Commission recommended that :*
- (1) Effort should be made by the state for the expansion and development of primary education.
 - (2) Primary education should be imparted through vernacular languages.
 - (3) The upper and lower primary examination should not be made compulsory.
 - (4) Efforts should be made to make primary education compulsory through regulation.
 - (5) Care should be taken not to interfere with the freedom of the manager of aided schools.
 - (6) Examination system of primary education should be simple.
 - (7) Pupils should be encouraged to take part in native games to promote the physical development.
 - (8) There should be provision of relaxation in tuition fees for poor student.
 - (9) Night school should be established wherever necessary.

- (10) Districts and municipal board should be directed to assign specific fund for repairment of school buildings.
- (11) The system of "payment by result" should be adopted though it will not apply in case of schools of backward areas.
- (12) In selecting persons to fill the lowest offices under government preference should be always be given to candidates who can read and write.
- (13) Primary education in backward areas should be extended by the Education Department itself.
- (14) There should be larger introduction of practical subjects like agriculture, industrial act, mensuration, accounts etc. in the curriculum of primary education.
- (15) Government will avoid financial assistance of the autonomous institutions and this will account for one third of the total expenditure.
- (16) Adequate number of Normal Schools should be established for the training of teachers.
- (17) Infrastructure and equipment of primary schools should be simple.
- (18) Policy of religious education should be same for both government and private schools.
- (19) School hours and holidays should be adjusted to the local requirement, specially in agricultural and backward districts.
- (20) There will be provisions of admission for student of every class and religions in aided school board.
- (21) Municipal and local boards will set apart funds for primary education.
- (22) Town and district board will appoint teachers as per the recommendation of education department.
- (23) School committee will determine the medium of institution in the primary schools.
- (24) District and Municipal Board were directed to assign specific fund for elementary education.
- (25) Aided primary schools should regularly be inspected.

Effects on Indian Education : The Indian education commission has changed the shape of elementary education by bringing it under the local

boards. This measure made the Government free from any responsibility for the same and gave an opportunity to the local boards to serve the general masses. Local Boards played the most significant role in the development of primary education in India at that time. At the time of Indian Education commission there were many indigenous institutions. These schools were imparting education to the people on the old traditional Indian pattern. Commission gave encouragement and regarded that those schools were very useful for imparting primary education.

Criticism : Hunter commission brought about changes in primary education. The main objectives of this commission was to expand primary education in India in the way that happened in England through Primary Education Act in 1870. As a result of the recommendation of this commission there were tremendous increase in the number primary schools but these were not enough to yield expected result. The system of payment by result made education more examination centric. Besides these, there were confusions in the organisation,

examination, curriculum etc. The biggest demerits of the Hunter commission was the silence over the issue of free and compulsory primary education.

Lord Curzon's Educational Policy

Lord Curzon arrived in India as Viceroy in the year 1899. He had the opportunity to know about Indian administration and its problems from 1882 to 1885 when he was in Asia. He was a man of determination and efficient administrator. One of the earliest subjects that attracted his attention was the prevailing condition of education in India and its drawbacks. So, he tried to reform Indian Education system at each level, primary, secondary and higher. In order to raise the efficiency and to improve the general standard of education, he called a conference of the Directors of Public instruction at Shimla in 1901. Lord Curzon himself presided over the meeting. The meeting discussed the existing situation of Indian Education from Primary to Higher level.

Shimla Education Conference

In order to discuss the problems of Indian education Lord Curzon

convened a conference of the Directors of Public Instruction at Shimla in 1901, which was known as Shimla Education conference. State Education officers and Christian Missionaries were invited here. This conference was continued almost for 15 days. Lord Curzon himself presided over the meeting. The meeting discussed the existing situation of Indian education from primary to higher level, its defects and proposals for reform. The resolutions of the conference were sent to the provincial governments and local bodies and on receiving the opinions of the provincial heads, Lord Curzon issued a resolution on the Indian Educational policy on the 11th March, 1904. These resolutions contained Lord Curzon's policy on Elementary, Secondary, University and Vocational Education in India.

Policy on Primary Education : Lord Curzon found that primary education in India had suffered mainly because of limited funds available for it. He also considered that primary education in India was neglected for the sake of higher education. So he tried to give more

importance on primary education and make provisions for qualitative and quantitative improvements of primary education. He declared that primary education received insufficient attention and it was the duty of both the central and the provincial governments to pay more attention for the expansion of primary education, specially in the backward areas. The Policy is considered as the beginning of a new era in the history of primary education in India. Other necessary provisions for primary education are mentioned below :

1. Grant in aid System : Larger grants were sanctioned from the government funds for the expansion of primary education and consequently there was a considerable increase in the number of public attending primary schools.

2. Replacing grant in aid by examination result : Lord Curzon also stopped the system of aiding primary schools on the basis examination results and introduced more scientific method of paying grant-in-aid.

3. Provisions for Teacher Training : Lord Curzon gave a great fillip

to the training of primary school teacher and improved lot. One of his contributions towards teacher training on agriculture.

4. Increase in teachers salary : Lord Curzon suggested to consider increasing teachers salary for improving the standard of life of the teachers. He wanted to remove the disparity of salary among teachers from different areas.

5. Modification of Curricula : The Curriculum of primary school was revised in order to take room for liberal education. He also suggested that the curriculum of rural and urban schools should be different.

6. Improved Methods of Teaching : Lord Curzon also tried to introduce better methods of teaching in the primary schools as a means of attraction to those schools. He wanted the application of thinking and reasoning in learning by the students.

Policy on Secondary Education : In the field of Secondary Education, Lord Curzon observed that the recommendations of the Indian Education Commission of 1882 had outlived their utility. The policy of *Laissez*

faire to private enterprise had brought in various evils. The private schools are inefficient, poorly staffed and poorly equipped. The only way to remove these defects was to replace the policy of *Laissez faire* and expansion. His policy contains two aspects. (a) Control and (b) Improvement.

Government tried to control private schools in the following way :

- (a) Every secondary school, whether government or aided, must receive *recognition from the government*.
- (b) Every secondary school, in addition to the *recognition from the Education Department*, must obtain *recognition from a University* if it wants to present students at the Matriculation examination conducted by the university.
- (c) *Transfer* of students from an unrecognised school to a recognised school was *prohibited*.

As regards policy of improvement of secondary schools, Lord Curzon adopted the following measures –

- (a) For raising the efficiency of government schools, large grants were sanctioned to provincial governments.

- (b) Training institutions for secondary school teachers were increased.
- (c) For maintaining control over secondary schools the inspectorate was strengthened.

Policy on Vocational Education :

Lord Curzon gave a great fillip to the expansion of *Vocational and Agricultural Education* in India. It was under him that the Departments of Agriculture were organised. He had established at Pusa a Central Research Institute to give the highest training in agriculture in India itself. He suggested that all the provinces of India must have a properly-equipped and properly-staffed Agricultural College. In the middle schools and the high schools agriculture should be included as a subject of study. He also instituted a large number of scholarships for sending Indian students for technological studies to the foreign countries. He also recognised the Schools of Art.

Policy on Higher Education :

Lord Curzon also introduced reforms in Higher education to realize the resolutions of Shimla Education

Conference. He expressed his views regarding Indian Higher Education System in his convocation speech of Calcutta University in 1904. He opined that education should help in development of knowledge and formation of characters of the students.

University Commission of 1902 :

Lord Curzon appointed the University Commission in 27th of January 1902 under the chairmanship of Sir Thomas Rally for the following purpose :

“To enquire into the condition of prospects of universities established in British India.

To consider and report upon any proposals which have been, or may be made for improving their constitution and working, and to recommend to the Governor-General-in-Council such measures as may tend to elevate the standard of university teaching and to promote the advancement of learning.”

The recommendations of this Commission were embodied in the Act which was later known as the **University Act of 1904**.

University Act of 1904 :

On the basis of the report of (1902) University commission, the Indian University Act was passed on 11th March of 1904 by Lord Curzon. Due to passing of the Act, the quality of instruction on Indian Universities improved to a great extent. As effort was made here to investigate the causes of University inefficiency and recommendation was made to remove them.

Other aspects of Educational reform :

Lord Curzon also reached several other aspects of Indian education :

1. Agriculture and Vocational Education : Lord Curzon gave a great fillip to the expansion of agricultural and Vocational Education in India.

2. Moral Education : Lord Curzon was in favour of moral and spiritual education instead of religious of missionaries in the education system.

3. Establishment of Art School : Lord Curzon initiate the promotion of Indian Art Industries through the reference of the school of art.

4. Establishment of department of Archeology : Lord Curzon passed the

Ancient Moments preservation Act of 1904 and created the Department of Archeology in India to preserve the valuable moments and historical places of ancient India.

5. Foreign Scholarship : Lord Curzon initiated several scholarship schemes for attracting meritorious students abroad for studying technical education.

6. Appointment of Director General in Education : Lord Curzon created the post of Director General of Education in India.

Govt. Resolution of 1904 :

Many proposal of the Shimla conference of 1901 was published in the form of gove of India Resolution of educational policy 1904 by Lord Curzon. The resolution shows Curzon's devotion to Indian Education. In this govt. report, drawbacks of Indian Education system were identified and tried to remove these.

Curzon's Contribution towards Indian Education

Lord Curzon was very much enthusiastic to reform different aspects of Indian education and also succeed in giving a new direction to it. His

remarkable contribution towards Indian education can be discussed as—

1. Lord Curzon encouraged govt. financial aids for development of Indian Education. He realized that education made slow progress in India due to insufficient funds.
2. Lord Curzon tried to make government more responsible in all aspects of education as a result of which standard of education was maintained.
3. He tried to improve the standard of education at all levels.
4. Agricultural education also received great encouragement during his tenure.
5. Lord Curzon also contributed in preservation and promotion of Indian language, literature and culture.

7. Gopalkrishna Gokhale's Bill 1910-11 : After Lord Curzon's policy of education the next stage in the field of education was dominated by the question of primary education. The Swadeshi movement and the resultant political awakening had drawn the attention of the country to an important issue. The issue was the education of the general masses. The

issue had made the people keenly interested in it. The nationalists gradually came to realise that there would be no real progress in the country so long the teeming millions remained illiterate. Gopal Krishna Gokhale, the Veteran Nationalist leader of India, realised the inherent utility of compulsory education and submitted a private bill to the 'Imperial Legislative Council' on 18th March 1910 to provide for the compulsory education. This Bill is known as the 'Gokhale's Bill' of 1910-11. The main provisions or features of the Gokhale's Bill were as follows :

Main provision of Gokhale's Bill :

1. An Act on lines of English Education Act 1870 should be passed authorising the local bodies to take initiation in the matter prepared.
2. Compulsion should be made in the case of boys only in the first instance, and it should be extended to girls at a later date.
3. Compulsion should be restricted to a period of four years only in the first instance, 6 to 10 years of age group.

4. Compulsion should be introduced in those areas where 33 percent of boys and girls were already under instruction.
5. The provisional governments should bear two-third of the total expenditure involved in the scheme of compulsion.
6. This Act may not be applicable with regard to same specific group of individuals.
7. The Department of education of the provincial govt. will determine the time and duration of the schools.
8. A school committee will be consisted to ensure attendance in schools.
9. Local Board and Municipalities should have the responsibility to establish and recognize new schools.
10. With the permission of provincial govt. the autonomous bodies can levy a tax for education.

Resultant Impact of Gokhale's Bill:

When the bill first introduced in the council the motion was withdrawn as government promised to treat the matter sympathetically. But nothing was done seriously by the Government.

Mr. Gokhale once again introduced the bill in 1911 in the 'Imperial Legislative Council' for making better provision for the extension of elementary education. This time the bill came for discussion in the council. But Gopal Krishna Gokhale knew quite well that he had to deal with special official on the one hand and band of conservative opposition among the people on the other. Therefore he was proceeding very cautiously with a hope that atleast the general principles of compulsory education would be accepted by the authority. But the hopes and aspirations of Gopal Krishna Gokhale were doomed when the bill was opposed by most of the official members and was finally rejected by 38 votes to 13. The official view was that the bill was premature as there was absence of popular demand for extension of primary education and that the local bodies also were against it. Though the official view was against the bill Gokhale was not disheartened and he justly remarked before winding up the debate. "My Lord, I know that my bill will be thrown out before the day closes. I make no complaint, I shall

not feel even depressed. I have always felt and have often said that we of the present generation in India can only hope to serve our country by our failures.”

Impact of Gokhale's Bill :

Gopal Krishna Gokhale's fight was a heroic fight. It did not go in vain. It is true that Gokhale failed in his endeavour, but he earned the right to be considered as the father of the compulsory education movement of India. The seeds sown by him came up quickly for harvest. While rejecting the bill the Government of India promised to extend primary education and to sanction a recurring grant of 50 lacs and a non recurring grant 84 lacs for the purpose.

The Govt. of India's Resolution of 1913 and Primary Education :

Despite the rejection of Gokhale's Bill of 1910-11 for the introduction of compulsory primary education in India, he succeeded in making the British Government conscious about the necessity of introducing compulsory Primary Education and also drawing attention of Indians to all aspects of education. Primary

education got a greater impetus when King Emperor George V visited India in 1911-12. In the Delhi Darbar George V proclaimed that 'it is my wish that there may be spread over the land a network of schools and colleges'.

Following the Delhi Darbar on December 12, 1912 certain administrative changes took place in the country. Accordingly, the government of India passed the resolution on educational policy on Feb, 1913. In the resolution every aspects of education primary, secondary, collegiate, agricultural veterinary, forestry, medical etc. were included.

As regards primary education the resolution made the following suggestions :

1. Large expansion should be made of lower primary schools.
2. Establishment of upper primary schools will be encouraged.
3. Local bodies should be encouraged to establish more schools.
4. Allotment of grants should be there to encourage elementary schools like 'Pathshala' and 'Maktabs'.
5. Provision will be made for training of primary school teacher.

6. Elementary education should be made free in backward and poor areas.
7. School buildings should be comfortable, convenient but inexpensive.
8. School curriculum should be more practical.

During 1910 to 1917 there was unprecedented growth of primary education on a voluntary basis. Whatever might be the fate of the bill, Gokhale's attempts created and moulded the public opinion and drew their attention to the cause of the education in general and compulsory in particular. As a result of his attempt most of the educated people in India began to realise the necessity of free and compulsory education. A department of education was created under the Central Government. Gokhale's attempts gave fruits and primary education developed rapidly in the different provinces of India. We can mention here the name of N.W. Frontier provinces, United provinces, the Punjab, Assam and Central provinces in this respect.

These, the resolution of 1913 indirectly help in fulfilling the aspirations of Gokhale's Bill.

Wardha Scheme or Gandhiji's Basic Education Scheme (1937)

Introduction :

Mahatma Gandhi, the father of the Nation, was the originator of 'Basic Education Scheme'. Mahatma Gandhi was not only a political leader, a social reformer but an educationist too. Gandhiji tried to implement the concept of Basic education long back in 1914, when he was in South Africa. During his stay in South Africa he promoted educational facilities for the children of Indian origin in the 'Tolstoy Firm' which he tried to mould through Basic Education. After coming back from South Africa he stayed in the Sabarmati Ashrom and the children near by the ashrom were provided education of this ideal. In the year 1935 Mahatma Gandhi went to 'Wardha' and stayed in 'Sevagram'. In 1937 Gandhiji published some articles in the 'Horijan' newspaper with the title 'Nai Talim'. This 'Nai Talim' is known as 'Basic Education'. With this educational scheme possible changes to be brought in the economic, social aspects of India were elaborately discussed through these articles. In that

very year Gandhiji introduced scheme of Basic Education in the All India National Educational conference held in 'wardha'. After an elaborate discussion on the scheme the following resolutions were accepted.

Resolutions of the scheme :

1. All boys & girls will be provided compulsory primary education for a period of 7 years through the medium of Mother Tongue.
2. Provision will be made for combining education with some productive activity which aims at mental development of the child.
3. Entire education system will be craft centred and teachers salaries will be borne from the income generated from the produced goods.

Zakir Hussain Committee :

The Education conference held in Wardha is also known as Wardha Education conference. In order to implement the resolution accepted in the conference a small committee was formed. The main responsibility of the committee was given the task of preparing an appropriate curriculum for implementing the scheme of Basic

Education. Dr. Zakir Hussain was appointed as the chairman of the committee and as such it is also known as Zakir Hussain Committee. In the year 1937 the committee had prepared a curriculum in the form of a resolution and named the resolution as National Educational Resolution. According to the Zakir Hussain Committee this National Education scheme should be made capable of educating and developing the entire personality of the future citizens and make them good citizens of the country.

Chief Characteristics and principles of Basic Education :

1. To make education craft centered and develop the mental potentialities of the child.
2. This education will make the children self sufficient and teachers salary will be paid from the income generated through the produced goods.
3. Another important characteristic of this education is Mother Tongue accepted as the medium of instruction.
4. Basic Education may be regarded as child centric as through this

- education the child is given an opportunity for active participation.
5. In basic education emphasis is laid on the utilitarian concept of knowledge.
 6. In the basic education system a good relation is established between the teacher and the student & both the forces are given an opportunity for independent participation.
 7. Basic education provides an environment for adjustment with real life situations.
 8. In the basic education system chief emphasis is laid on the development of the Indian moral customs and traditions and as a result it helps in the development of the National Character
 9. Through basic education an association of school and society is made possible.
 10. The chief aim of this scheme is to make aware the child about the duties and responsibilities of a future citizen of the country.
 11. In the basic education scheme importance is given on few modern concepts like child psychology.
 12. Basic education scheme is known as an all round development scheme because there is provision for educating people belonging to every age group.
 13. Basic education scheme develops in the child the ideals of non-violence and international co-operation along with a realization of the virtues or truth, justice, love and service through the Gandhian philosophy.
- The Zakir Hussain committee prepared the syllabus for Basic Education and brought a revolution in the Indian economic and social life and tried to resolve the prevalent problems of the education system of India.
- The following subjects were included in the syllabus for basic Education-
- (1) One basic craft (spinning, weaving, wood work, gardening, agriculture, teacher work etc.)
 - (2) Mother Tongue
 - (3) Mathematics
 - (4) General Science
 - (5) Drawing
 - (6) Music.
- In order to implement the resolutions of the Zakir Hussain Committee an All India National Education Conference was held in Wardha. At that

time in some states where Congress Government was in power, basic education was implemented in a full fledged manner and it was not only limited to primary education but was divided into several stages -

- (1) Pre-Basic stage.
- (2) Basic education stage.
- (3) Post-Basic stage.
- (4) Adult Education stage.
- (5) University Education stage.

Merits of Basic Education :

If we analyse the history of progress of basic education we will find that the scheme had a large number of merits. Among them- (1) This education gives importance on acquiring knowledge through active participation.

(2) Through its medium the training provided for self sufficiency helped in economic upliftment. (3) As education is provided through craft work, the child learns in a spontaneous and joyful environment. (4) The importance of manual labour is signified. (5) This education system establishes a close link between life and the realities of life. (6) This education system helps in developing the creative potentialities of a growing child

and developing the social traits of the child. (7) In this education system mother tongue is given utmost importance. (8) The basic education system established a close relation with the learner and his vocation. (9) The chief aim of this scheme is the development of the learners personality in its totality. (10) In this scheme besides imparting education for utility, the child is introduced to the Indian moral ideals. (11) In the basic education scheme the child learns in joyful and activity oriented learning situation which gives them an opportunity for all round development.

Demerits of Basic Education :

Though this scheme has several advantages but there are some disadvantages of the scheme which hinder in the proper implementation of the scheme. The Demerits of the scheme are as follows -

- (1) There is no educational advantage of the Basic education scheme. The scheme got appropriation as it was designed by Gandhiji.
- (2) Correlation method is the basic element of the basic education scheme.

- (3) Basic education plan is suitable for village areas, it cannot be accommodated in the town areas.
- (4) The entire expenses of education for every state should be borne by the Government. But in basic education system the students bear all the expenses of education by their own income.
- (5) If children are taught through handicrafts more raw materials will be wasted and the equipments may also be destroyed.
- (6) As chief emphasis lies in learning through craft work, the all round development may get disturbed.
- (7) Through this scheme self dependence is impossible as while implementing the scheme the school will be converted into a workshop and the students will be the daily wage earners.
- (8) In this scheme due to the abolition of English language from the scheme, it may hamper in higher education.
- (9) Basic education scheme totally failed in recognizing the play spirit of the small children.

Causes of failure of Basic Education :

Basic education failed for the following reasons-

- (1) Lack of interest of the common peoples.
- (2) Incorrect approach and application.
- (3) Dearth of trained teacher.
- (4) Defective curriculum.
- (5) Traditional examination system.
- (6) Scarcity of proper curriculum.

It could not bring about a drastic change in our life style.

Assam Primary Education Act 1926 :

The main provisions of the Act were as follows :

1. It extends to the whole of Assam.
2. Any local authority may resolve by a majority of two-third of the members present, at a meeting specially convened for the purpose; to apply for the sanction of compulsory education to the whole or any part of the area within its jurisdiction to children of not less than six and not more than eleven years of age of either sex or both sexes, who are resident in the area within its

- jurisdiction with or without the exemption of any particular community or communities.
3. The local authority shall submit to the Government for consideration of the resolution as published, the objections if any received and the modification or modifications if any decided on.
 4. The local authority shall at the same time submit to the government a statement showing all particulars relating to the proposal including details concerning the total expenditure incurred by the local authority and by the government or primary education in the area in question, and additional cost that the introduction of compulsory primary education will entail and the manner in which the total cost of the scheme is to be met.
 5. The local authority of any area which resolves to introduce a scheme of compulsory primary education shall without diminishing its current expenditure on primary education in that area, provide one-third of the additional cost and shall for this purpose ordinarily levy on education cess.
 6. In the event of the proposal being sanctioned, the government shall provide to the local authority the remaining two-thirds of the additional costs of the scheme.
 7. If a local authority fails to submit a scheme for introducing compulsory primary education within a reasonable time, the government may at any time call upon the local authority to submit the scheme, provided that when the government proposes to take action, it shall lay the question before the Legislative Council. If however the legislative council by a majority of votes disapproves of the proposal then no action shall be taken by the Government.
 8. Government may notify to make rules which shall be laid before the Legislative Council to carry out the Act and in particular prescribe the incidence of the education cess and the manner in which the education committee of the local authority shall be constituted and the education funds shall be maintained.

9. No fee shall be charged from any pupil for tuition in any recognized primary school maintained or aided by the local authority.
10. The children of needy guardians who are too poor to buy books and writing materials may, if the education committee so recommend, be provided with the use of necessary books and writing materials free of cost by the local authority.
11. The local authority and the education committee concerned shall be responsible for the enforcement of the provision of the Act and shall provide and maintain such school accommodation and equipment and shall employ such education staff as the Director of Public Instruction may consider necessary.

POINTS TO REMEMBER

- ❖ The charter Act of 1813 gave a new direction to Indian education.
- ❖ Anglicist were the supporters of English system of education and the classicist were the supporters of the indigenous system of education. The controversy that developed among them is known as the Anglicist classicist controversy.
- ❖ Lord Macaulay (1835) stressed on the implementation through his minute.
- ❖ Wood's Despatch (1854) was one of the greatest landmarks in the history of Indian Education.
- ❖ The main objectives of Hunter commission or Indian Education commission (1882) were to revise the condition of Indian education and to give suggestions for the development. The Commission made recommendations on primary, secondary and higher education.
- ❖ Lord Curzon became the Governor-General of India in January, 1899. To discuss the problems of Indian education, he convened a conference of the Directors of Public Instruction at Shimla in 1901 and on 11th March, 1904 issued a resolution on Indian Education Policy.
- ❖ After Gokhale's Bill of 1910-11, in 1937 Mahatma Gandhi introduced his scheme of "Basic Education". In the same year a National Education conference was held at Wardha to discuss Gandhiji's plan.

ACTIVITY-2

1. What was the clause included in Charter Act of 1813?
2. Mention the statement of Macaulay which was expressed at the time criticism of oriental learning.
3. Why Despatch of 1854 known as 'Magna carta' of Indian Education?
4. What was the of 'payment by result system'? Who introduced it and who abolished it?
5. Write the statement of Gokhale's on his bill before it winding up in debate.
6. What were the subjects included in the curriculum of Basic Education?

(D) Universalisation of Primary Education since Independence

Constitutional Provisions of Primary Education

(Article 15, 28, 45 and 282) :

Introduction : Education is one of the main important instrument of social development. It plays the most significant role in the development of a nation. India is a Sovereign Democratic Republic country and it has got its own Constitution. According to the Constitution of India, education is a state subject and the Central Government has to play only an advisory role. There are some fundamental rights that can be enjoyed by the citizens, ir-respective of caste, creed and religion. One of the important right of the citizens is right to education.

Provision of Article 15 : Article 15 of the Indian Constitution speaks about prohibition of discrimination on certain grounds which is illustrative in character. According to the Article "The state shall not discriminate against any citizen on grounds only on religion, race, caste, sex, place of birth or any of them. Further on the basis of any of these grounds a citizen cannot be denied access to shops, public restaurants or the use of wells, tanks, bathing ghats, roads and places of public resort maintained wholly or partly out of state funds of dedicated to the use of the general public."

Article 15 (i) prohibits discrimination based on the place of birth, it cannot be read as prohibiting discrimination based on residence. Residence

as a qualification for certain purposes such as employment may not be classed with discrimination based on caste and place of birth.

Article 15 (ii) is conferred on a citizen as an individual and is a guarantee against his being subjected to discrimination in the matter of rights, privileges and immunities pertaining to him as a citizen generally.

Article 15 (iii) has, however, two notable exceptions in its application. The first of these permits the state to make special provision for the benefit of women and children. Education for women is the basic right of equality and therefore no state from any corner can stop or prevent for the education of women.

The article allows the state to make any special provision for the advancement of any socially and educationally backward classes of citizen or for the Scheduled Castes and Scheduled Tribes.

Provision of Article 28 : Article 28 speaks about the religious instruction in the educational institutions.

Article 28 (i) prohibits religious instructions in any educational institutions wholly maintained out of state funds.

Article 28 (ii) permits establishment of educational institutions established under any endowment of trust which requires that religious instruction.

Article 28 (iii) says that no person attending any educational institution recognized by the state funds shall be required to take part in any religious instruction that may be imparted in such institution or any premises attached thereto- unless such person or, if such person is a minor, his guardian had given his consent thereto.

Article 29 : guarantees that ‘Any section of the citizens residing in the territory of Indian or any part thereof, having a distinct language, script or culture of its own, shall have the right to conserve the same’, and it further declares that ‘no citizens shall be denied admission to any educational institution maintained by the state or receiving aid out of the state fund on ground only of religion, race, cast, language or any of them.’

Article 30 : It declares that ‘All minorities whether based on religion or language shall have the right to establish administration educational in-

stitution of his own choice', and adds that 'the state shall not, in granting aid to educational institutions, discriminate against any educational institution on the ground that it is under the management of a minority'.

According to Article 41 : (Under directive principles of state policy) 'The state shall within the limits of its securing the right to work, to education....'

Provision of Article 45 : The article 45 of the Directive Principles of State Policy lays down,

"The state shall endeavour to provide within a period of ten years from the commencement of this Constitution, for free and compulsory, education to all children till they complete the age of Fourteen years."

The Constitutional Provision for the compulsory primary education in our country was to fulfil by 1960. But in spite of unprecedented expansion in the field of primary education, universalisation of primary education has remained an unfinished task due to lack of financial resources, expansion of students' population, non co-operation and poverty of

parents, resistance to the education of girls, small and scattered habitations, existence of backward groups, absence of suitable machinery for compulsory attendance, wide gap between expansion in the states, apathy of illiterate masses to education, low priority to primary education and wastage and stagnation in primary education.

Education is an important duty and responsibility of a democratic state. The democracy depends fully on its citizens. So democratic states should accept the responsibility for education of citizens. If we want to establish socialism and democracy in a country we must be able to eradicate the illiteracy among the citizens. Literate as well as educated citizens can mould their opinion for the better functioning of the democracy. So, there are some constitutional provisions for education of the children of each of the democratic countries. Indian constitution also have the above mentioned provision.

Government of India after Independence has appointed some Education Commissions from time to time. But Kothari Commission of 1964-66

have offered a few suggestions regarding implementation of the Constitutional Directives for compulsory primary education in our country. Suggestions are as follows :

1. Every state or every district in a state should prepare some plan of its own for implementing such a scheme. Of course, in doing so, the local problems are to be taken into consideration.
2. Every state should make some financial provision for such plan, so that due to paucity of fund, such a plan does not fail.
3. There should be a concerted effort to make the Constitutional Directives for compulsory primary education as fruitful and it should be completed by the year 1975-76.

Provision of Article 282 : Besides, Indian Constitution also incorporates the Seventh Schedule consisting of three legislative lists – **the Union list, the State list and the concurrent list.** Part XII consisting of thirty seven articles i.e. from Article 264 to 300 deals in elaborate terms, with the financial relations between the Union and the States as well as the financial

dealings of the Union and the States with third parties. The financial matter covers the primary education also.

Total Literacy Campaign (TLC) :

Total Literacy Campaign is one of the significant component of Universalisation of Primary Education. In 1989 National ‘Mass movement Attempt’ or ‘Janajagaran Prasesta’ programme was accepted. It was the attempt to remove illiteracy from the society within a short time. ‘Kerala Shastra Sahitya Parishad’ and ‘Bharat Jana Vigyan Jatra’ shows that the mass people of India voluntarily proceed to eradicate illiteracy among them and from their society. Music, Art, Drama and cultural components play the significant role in the implementation of this programme and it helps in the creation of healthy environment.

Characteristics and implementation of Total Literacy Programme

1. Campaigning through banner, stiker, poster, katha jatra etc. among the mass people.
2. For the intervention of mass people members of the all communities should be included in this programme.

3. Formation of different committees in different levels. Levels are District Level, Block Level and Village Level.
4. Appointment of more volunteers. One volunteer may appoint for every 10 illiterates.
5. Establishment of training camp for the training of volunteers for the programme.
6. Intervention of Government officer, Non-Government officer, selected representatives, voluntary organizations, social workers and business institutes etc. in the programme.
7. Consideration of a District to make an effective centre for the training programme of TLC. If necessity arise training centre may be created in block level, panchayat level and tahsil level.
8. Time and convenient places may be fixed according to volunteer and interested illiterate of the programme.
9. The total programme should be fixed for a particular time. For the publication of the programme three months and for the teaching six or seven months time should be fixed.

District Primary Education Programme (DPEP) :

To evaluate the effectiveness of the New Education Policy 1986, a committee was appointed by the Govt of India in 1990. A review of NPE, 1986 was conducted during 1990-1992. The programme of Action, 1992 stressed the need of development of education in backward districts. Accordingly, the Government of India formulated the 'District Primary Education Programme' (DPEP) scheme in 1993-94. DPEP is an effort to decentralise educational planning at the district level. It is planned in such a way that it suits the educational needs and demands of the district concerned. Initially district projects were prepared in 44 districts in eight states- Assam, Hariyana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu and Kerala. Gradually it was followed in 273 districts spreads over 18 states.

Objectives of DPEP scheme :

1. To provide access to all children of primary education (Class 1 to IV/V)
2. To reduce dropout rates to less than 10 percent.

3. To increase learning achievement at primary level by 25 percent.
4. To reduce gender gaps and differences in social group to less than 5 percent.

Source of Fund : DPEP Scheme was dependent on different funding agencies of which 85% was borne by Govt. of India and 15% by state Govts. The Govt. of India's share was funded by foreign agencies like World Bank UNICEF, govt of Netherland etc.

DPEP in Assam : In Assam DPEP scheme was strated in nine districts—Dudhnoi of Goalpara, Titaguri of Kokrajhar, Agomoni in Dhubri, Baitamari in Bongaigaon, Senga of Barpeta, Dolgaon of Darrang, Na-duar of Sonitpur, Lahorighat of Morigaon and Howraghat of Karbi Anglong.

Education as Right

Education is one of the fundamental rights of citizen. Every children between the age of 6-14 must be able to receive education. Education plays the most significant role in the development of a democratic nation. Education is an important duty and responsibility of

a democratic government. The Democracy depends fully on its citizens. So, democratic state should accept the responsibility for education of citizens. Literate as well as educated citizens can mould their opinion for the better functioning of the democracy. For this purpose provision of the article 45 of the directive principles of state policy lays down that- "The state shall endeavour to provide within a period of ten years from the commencement of this constitution, for free and compulsory, education to all children till they complete the age of fourteen years." The constitutional provision for the compulsory primary education in our country was to fullfill by 1960. But inspite of unprecedented expansion in the field of primary education universalisation of education has remained as an unfinished task. But the Government of India again make an attempt to finish the unfinished task through the 'Sarva Saksha Abhiyan'.

Sarva Shiksha Abhiyan (SSA)

Sarva Shiksha Abhiyan is an effort to universalize primary education by community ownership of the school

system. It is a response to the demand for quality basic education all over the country. The SSA programme is also an attempt to provide an opportunity for improving human capabilities to all children, through provision of community owned quality education in a mission mode. It is a programme with a clear timeframe for universal primary education and a response to the demand for quality basic education all over the country. SSA is an opportunity for promoting social justice through basic education. It is an effort effectively involving the Panchayati Raj Institutions, School Management Committees, Village and Urban Slum level Education Committees. Parents' Teachers' Associations, Mother Teacher Associations, Tribal Autonomous Councils and other grassroot level structures in the management of primary schools. SSA is an expression of political will for universal primary education across the country and a partnership between the Central, State and the local government. It is an opportunity for States to develop their own vision of Primary education.

Aims and objectives of Sarva Shiksha Abhiyan : The Sarva Shiksha Abhiyan is to provide useful and relevant primary education for all children in the 6 to 14 age group by 2010. There is also another goal to bridge social, regional and gender gaps, with the active participation of the community in the management of schools.

The main objectives are :

1. All children in school, Education Guarantee Centre, Alternate School, 'Back-to School' camp by 2003;
2. All children complete five years of primary schooling by 2007
3. All children complete eight years of primary schooling by 2010
4. Focus on primary education of satisfactory quality with emphasis on education for life.
5. Bridge all gender and social category gaps at primary stage by 2007 and at a primary education level by 2010.
6. Universal retention by 2010.

All the objectives are expressed nationally though it is expected that various districts and states are likely to achieve universalization in their own respective contexts and in their

own timeframe. 2010 is the outer limit for such achievements. The emphasis is on mainstreaming out of school children through diverse strategies, as far as possible, and on providing eight years of schooling for all children in 6-14 age group. The thrust is on bridging of gender and social gaps and a total retention of all children in schools. Within this framework it is expected that the education system will be made relevant so that children and parents find the schooling system useful and absorbing, according to their natural and social environment.

Framework of Sarva Shiksha Abhiyan :

Sarva Shiksha Abhiyan has two directions. One indicates the organizational setup for implementation of primary education and the other indicates about the expenditure in reaching at universalisation of primary education. The state government and the central government had this investments in the primary education sector.

Within a few years to come all the aspects of primary education will be unified with Sarva Shiksha Abhiyan scheme. As a scheme Sarva Shiksha

Abhiyan has continued its effort to use its extended resource in the process for universalisation for primary education.

Aspects of Sarva Shiksha Abhiyan :

Sarva Shiksha Abhiyan has two aspects—

(i) It provides a wide convergent framework for implementation of Elementary Education Schemes; (ii) It is also a programme with budget provision of strengthening vital areas to achieve universalization of primary education. While all investments in the primary education sector from the State and the the Central Plans will reflect as part of the SSA framework, they will be merged into the SSA Programme within the next few years. As a programme, it reflects the additional resource provision for UEE.

Sarva Shiksha Abiyan has been divided into some branches, such as-

- (1) Reform in planning and management.
- (2) Development of schools along with the development of education system.
- (3) Expansion of alternative creature education.
- (4) Making informal education more practical.

- (5) Involving community in all aspects of education.
- (6) Sarva Shiksha Abhiyan is in favour of education.

Provided by both public and private sector for which it has set some standards to be followed in the institutions—

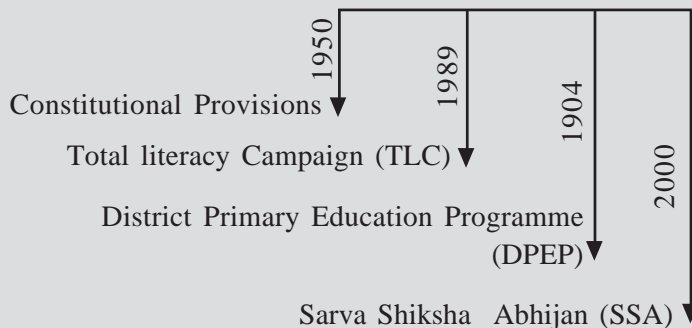
- (a) There should be one teacher against every 40 students in

primary and upper primary stage of education.

- (b) Ensuring the existence of at least two teachers in every school.
- (c) One separate room for every headmaster of upper primary schools.
- (d) Ensuring face textbooks for girls, children of scheduled castes and scheduled tribes in every primary and upper primary schools.

Points to Remember

Measures taken for Universalisation of Primary Education



Activity-3

- Write the directives of Article 45 of Indian constitution.
- What were the districts included for DPEP programme in Assam?
- What are the two aspects of 'Sarva Shiksha Abhiyan'?
- Write the full term :
(a) UEE (b) DPEP (c) TLC (d) SSA

SUMMARY OF THE CHAPTER

Education is one of the main functions of a country. Primary education constitutes a very important stage of the entire structure of education. In India there has been a provision of education since a very long time. Education was spread in the society in so many ways. The educational history of India prior to independence can be divided into several ages, each having a characteristic educational pattern of its own. We can divide it into two periods such as ancient period and modern period. India is a culturally rich country. Before the British rule in India education spread in the society with the help of indigenous institutions like Gurukula, Pathsala, Tol. Satra, Maktab and Madrassa. The advent of missionaries introduced a new trend in Indian society. East India company came to India to develop their business organisation, so they were not interested in the education of the Indians. During the company rule the christian missionary played the most significant role in the socio-cultural development of India. As a result of the 'Yandaboo Treaty' of 1826 Assam came under the British rule. The missionaries did different kinds of work in Assam. The Charter Act of 1813 brings a new outlook in the educational field of India. This Act empowered the missionaries to spread education in India and laid down the foundation of state educational system in India. Macaulay's minute was a significant aspect of Indian education system and it brings a critical situation in Indian society. In 1854 Woods Despatch was passed and it was a great landmarks of the history of Indian education. Indian Education Commission was appointed in 1882 to review the conditions of Indian Education and to give necessary suggestions for its development. Lord Curzon issued a resolution on the Indian Educational Policy on the 11th March, 1904 as a result of the Shimla conference of 1901. The educational policy of Lord Curzon marked the beginning of a new era in the history of education. Gopal Krishna Gokhale realised about the compulsory primary education and submitted a private bill to the 'Imperial Legislative Council' on 18th March 1910 to provide for

the compulsory education. But the bill was finally rejected by 38 votes to 13. Mahatma Gandhi, the father of nation was the originator of “ Basic Education Scheme”. When in 1937 congress came to power in many of the provinces, necessity was felt of evolving a national system of education. But due to wrong implementation basic education has failed in India. Assam Primary Education Act was passed in 1926 and it extends to the whole of Assam. To fulfill the mandate of Indian constitution arduous efforts were made in the last four decades for the universalization of primary education. Total Literacy Campaign, District Primary Education Programme and Sarva Shiksha Abhiyan are the significant efforts to universalize primary education by community ownership of the school system. These are the efforts to fulfil the ‘Right to education’.

EXERCISE

1. What were the objectives of Ancient Education System in India?
2. Discuss briefly about the following :
 - (a) Gurukula (b) Pathsala (c) Tols
 - (d) Satra (e) Maktab (f) Madrasah or Madrassa
 - (g) Serampore Trio
3. ‘Monitorial system’ or ‘Bell system’
4. Write briefly about the ‘contributions of early missionaries in Assam’.
5. Write briefly :
 - (a) The Charter Act of 1813
 - (b) Hunter Commission of 1882
 - (c) Anglicist Classicist Controversy
 - (d) Macaulay’s Minute
 - (e) Anglicist Classicist Controversy

6. Discuss the importance of Woods Despatch of 1854 in the field of Indian education.
7. Mention the important suggestions of Woods Despatch for the development of primary education in India. What were their effects?
8. Why is the Despatch of 1854 known as the 'Magna Carta' of Indian Education? Discuss.
9. State briefly the Curzon's educational policy.
10. What were the major suggestions for the improvement of primary education given by Indian Education Commission of 1882? What were their effects?
11. Write briefly :
 - (a) Hunter Commission and Primary Education
 - (b) Hunter Commission and Indigenous system of Education
 - (c) Hunter Commission and its effects on Indian Education
12. Write about the contribution of GK Gokhale in field Primary education in India.
13. Discuss the significant resolutions of Wardha Conference of 1937.
14. What are the salient features of Basic Education? Discuss its merits and demerits.
15. What are the causes of failure of Basic education?
16. What are the provisions of Assam Primary Education Act 1926.
17. What is SSA? Write briefly?
18. Write notes on :
 - (a) Universalization of Primary Education
 - (b) District Primary Education Programme
 - (c) Total Literacy Campaign (TLC)
19. What are role of SSA in the universalisation of primary Education?

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