PREFACE

In the curricular structure introduced by this University for students of Diploma programme, the opportunity to pursue Diploma course in Subjects introduced by this University is equally available to all learners. Instead of being guided by any presumption about ability level, it would perhaps stand to reason if receptivity of a learner is judged in the course of the learning process. That would be entirely in keeping with the objectives of open education which does not believe in artificial differentiation.

Keeping this in view, study materials of the Diploma level in different subjects are being prepared on the basis of a well laid-out syllabus. The course structure combines the best elements in the approved syllabi of Central and State Universities in respective subjects. It has been so designed as to be upgradable with the addition of new information as well as results of fresh thinking and analysis.

The accepted methodology of distance education has been followed in the preparation of these study materials. Cooperation in every form of experienced scholars is indispensable for a work of this kind. We, therefore, owe an enormous debt of gratitude to everyone whose tireless efforts went into the writing, editing and devising of a proper lay-out of the materials. Practically speaking, their role amounts to an involvement in 'invisible teaching'. For, whoever makes use of these study materials would virtually derive the benefit of learning under their collective care without each being seen by the other.

The more a learner would seriously pursue these study materials the easier it will be for him or her to reach out to larger horizons of a subject. Care has also been taken to make the language lucid and presentation attractive so that they may be rated as quality self-learning materials. If anything remains still obscure or difficult to follow, arrangements are there to come to terms with them through the counselling sessions regularly available at the network of study centres set up by the University.

Needless to add, a great deal of these efforts is still experimental—in fact, pioneering in certain areas. Naturally, there is every possibility of some lapse or deficiency here and there. However, these do admit of rectification and further improvement in due course. On the whole, therefore, these study materials are expected to evoke wider appreciation the more they receive serious attention of all concerned.

Professor (Dr.) Subha Sankar Sarkar Vice-Chancellor

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DIPLOMA [PRE-PRIMARY TEACHERS' EDUCATION—MONTESSORI]

Course Writing

Paper – V: Professor Dulal Mukhopadhya

Paper - VI:

Module-A Smt. Sipra Raha

Module-B Dr. Bandana Das

Smt. Anima Barai

Notification

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Professor (Dr.) Debesh Roy Registrar

Diploma in Pre-Primary Teachers' Education—Montessori (DPTE-M)

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Unit 1 □ **Evaluation**

Structure

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1.1 Introduction

This is the first unit of this paper. In this unit we will learn about Evaluation. This unit presents the first stage in the discussion of continuous, comprehensive and total evaluation.

We will be looking at the history of the development of evaluation in the first place. This history is very old indeed and information pertaining to evaluation is available in different ancient books and texts.

Three education commissions were formed in India after Independence in 1947. The Mudaliar Commission (1952-53) made recommendations about holding examinations and assessing the other aspects of education.

The Kothari Commission (1964) stressed evaluation. On the other hand, The National Education Policy (1986) also spoke of evaluation in the context of examination reforms.

Later on in this unit we will discuss the meaning, nature and scope of Evaluation. Here it is important to understand that education and evaluation are interconnected. The scope

of evaluation is really very large because evaluation is a means of assessing the fulfillment of educational objectives, the overall development of the learner, forecasting the possible direction of his/her development, imparting educational and vocational instructions, etc. In this connection we must clearly understand that in spite of certain similarities, measurement and evaluation are substantially different processes.

We will conclude this unit with a discussion of the place of evaluation in pre-primary education.

1.2 Objectives

After reading this unit, you will—

- gain an idea of the history of the development of evaluation;
- know and understand the meaning, nature and scope of evaluation;
- understand the relation between evaluation and examination and be able to differentiate them and
- learn how to determine the place of evaluation in pre-primary education.

1.3 Historical Development of Evaluation and various Reports and Recommendations : A synoptic view

The evaluation process is closely connected with conventional education. The educational process begins with the determination of goals or objectives. The next step is organising the curriculum. This is the way to the attainment of goals. The curriculum is practised by following definite methods. And a stage comes when the need is felt after the expiry of the stipulated period to find out how far the learner has advanced on the path to the attainment of objectives or the extent to which he has succeeded in achieving his/her goals. Naturally the question of evaluation comes up in this context. However, the viewpoint of evaluation has changed and evolved with the passage of time. What follows is a brief history of evaluation.

We come across a variety of information about the method of oral tests in ancient literature. The first example of this method is to be found in the Old Testament. With a view to eliminating his enemy the Ephraimitests, Gileadite conducted oral tests and killed 42000 of his enemies who failed the test.

As far as we know, the Chinese had developed one of the oldest methods of evaluation. The Chinese examination system was the oldest of its kind in the world. Examination constituted the very basis of their education. Degrees of different types were awarded to the learners on the basis of examination results on the completion of education. The examinations were conducted by a central agency. The learness received placements and positions according to the examination results obtained by them and their merit. The great Shun of China conducted written tests to evaluate the efficiency of his officers.

The ancient education system in India chiefly denotes the Vedic education system. There was no system of examinations as such; instead, the Acharya or Guru evaluated the competence and merit of his learners. Performance of every day tasks was a critical yardstick. The acharya would attempt an evaluation on the basis of whether the takes and responsibilities assigned to a disciple had been successfully performed or not. In the later Vedic age Brahmanic education developed a system of debate for learners, conference devoted to discussion and conclave of scholars and savants. The debates saw fierce verbal contests and drew large audiences. Such debates are referred to as 'Brahmodaya' in the Vedic texts. There are references to 'Vidyavivad' or 'Vidyavichara' in Sanskrit literature. Vichara or debate was conducted before a judge and took the form of questions and answers. The interlocutor was called the 'Prasnin' and the person or opponent who answered the questions was called the 'Atiprasnin'. In the opinion of a number of experts, the term 'Vakovakyam' implied a debate of this kind. Such debates were usually held at venues like tapovanas, royal courts, battle fields, etc. If the guru considered the learner competent after assessing his learning and scholarship, the former would announce the latter's successful completion of education at a 'Samavartan' ceremony (convocation).

Taksasila University was on of the great institutions of higher learning in the Brahminic age. Here a learner was administered oral tests to assess their mastery of the subjects learnt. Finally honorary titles were conferred on the examinees. The candidate who stood first received the title Kulapati.

In the Buddhist system the learners were required to take tests in the subjects taught at the end of the teaching session. These tests were conducted through oral questions (viva voce). They were tested for their ability to recite and grasp difficult issues. To measure efficiency in vocational knowledge various practical techniques were employed. The evaluation was done, not by a single teacher, but by a team of teachers. At institutions like Nalanda there were facilities for holding examinations and conferring titles. Professors were normally in charge of holding examinations, though the learners were at times taken to the royal court for taking examinations. Successful candidates received titles like 'Sthavira', 'Bahusruta', Pandit', etc. A system of examination existed at Vikramshila Mahavihara, too. This was of the oral kind and successful candidates were awarded titles such as Pandit, Mahapandit, Upadhyaya, etc.

The middle ages began in India towards the end of the 12th century AD. A new education system based on Islam came into being. This system, too, had arrangements and mechanisms for evaluating the educational progress achieved by the learners. Teachers evaluated learners at different levels. Every day they gave the learners specific tasks to perform and found out if they were properly performing. After a long interval a total evaluation was carried out of the learner's work and progress. Evaluation would follow when the teacher decided that the learner had completed his learning at a certain level and on the basis of this success he would begin teaching the subjects of the next level. This teacher-centric evaluation apart, universal competitions in many areas were held to assess the efficiency of learners who came from various parts of the country and different institutions and had to prove their educational credentials by taking part in different competitive events.

Written examinations were introduced in Boston, USA in 1840. Gradually and over the years written examinations were introduced at other Universities, too. British rule began in India in the latter half of the 18th century. Not much importance was attached to education at this stage. The Wood Despatch remains a landmark in the history of education in British India. One of the recommendations made in this despatch was that several universities of the type represented by London University should be established in this country to hold examinations and award degrees. In the later years the education system in British India was divided into several stages. At the end of each stage examinations were held. It can be said that education was entirely examination-centric. An entire evaluation

of the learner was not possible since the examination system was only designed to measure curricular knowledge and efficiency. The sole aim of acquiring education was to pass examinations. Since there was at least a possibility for the educated to get jobs at a certain age, attempts were made to adopt unfair means in different ways. If fact in British India examinations took the pride of place in the education system and evaluation of the total progress achieved by the learner became almost irrelevant. On the other hand in the rest of the world concepts of evaluation began to change rapidly with the development of modern education and the need of holistic evaluation instead of examinations began to be increasingly felt. This naturally necessitated reforms in the examination system.

The Calcutta University Commission or The Saddler Commission (1917-19) recommended the creation of a Board of Secondary Education to conduct examinations for those who had completed school education. The report of the Central Advisory Board (Sargent Plan, 1944) said that the school curriculum was antequated resulting in a situation in which only one in fifteen candidates was eligible for University education on completion of school education. Its recommendation with regard to examinations stated—"Every attempt should be made to devise and standardise objective type tests for use in this country so that they may supplement and ultimately replace the old type of examinations."

After 1947 in Independent India three commissions were constituted to reform and modermise education. The University Education Commission or Radhakrishnan Commission (1948) stated, "We are convinced that if we are to suggest one single reform in University education, it should be that of examination." The commission also said that if examinations were needed, their radical reform was also needed. According to it, the primary responsibility of universities was to maintain the highest possible standards of education and examination. It observed that space would have to be created for objective tests in examinations in order to free the examination system from the defects of essay type examinations/questions and that work done by learners in the class should not be neglected. One third of the total marks in each subject should be set aside for class work. And it was not rational to assess the learning of three years of the first degree through a single examination. The entire course should be divided into three self-sufficient units and examinations held accordingly.

The Secondary Education Commission (Mudaliar Commission 1952-53) made certain important recommendations with regard to reforming the examination system:

- (1) The number of essay type questions should be reduced as far as possible and objective questions should be accorded more importance.
- (2) Arrangements should be in place to provide adequate documentation of the comprehensive development of each learner.
- (3) Documents prepared by school pertaining to the learner would have to be used as an index and results of internal tests must be taken into account in the final evaluation.
- (4) Grading system would have to be introduced.
- (5) The Certificate/document awarded to a learner after a Public examination on completion of education would reflect results of internal tests and documents prepared by the school.

According to the Commission, learners should not be promoted only on the basis of annual examination. The results obtained in other tests and other activities would have to be taken into account. The current mode of internal tests would have to be changed.

The Commission specially stressed the need to maintain documents and records of learners at schools. It was not possible to obtain a complete picture of a learner's progress only from internal or external examinations. A total evaluation of the learner would be specially needed in deciding the future course of education or vocation. For this reason it was necessary to maintain throughout the year a record of the tasks performed by a learner every day. Such a record would contain details of a learner's varied interests, tendencies, personality traits, social adjustability and social activities. In a manner of speaking it would contain an account of the entire academic career of the learner. All schools across the country would have to put in place mechanisms for maintaining such records.

The All India Council for Secondary Education (AICSE) was formed on the basis of the recommendations of the Mudaliar Commission Report. The Education Minister of India at that time was Maulana Abul Kalam Azad who observed in this connection, "..... an organisation to advise the Government of India and State Governments on the manner in which the recommendations of the commission could be effectively implemented."

Subsequently the Government of India set up another education commission, namely the Kothari Commission on July 14, 1964. The Commission began its work on October

2, 1964 and submitted its report in June, 1966. It laid special stress on evaluation at the school level, emphasizing at the same time, large-scale reform and improvement of the existing methods of teaching and evaluation. A proper environment, it said, would have to be created to bring about dynamism and flexibility in education. According to the commission, evaluation is an integral part of education which exercises a great influence on the learner's studies and the teacher's teaching methods. On the one hand evaluation measures progress of education while on the other it considerably helps improve education. Hence, it would be necessary to lay proper stress on written test, oral test, internal evaluation, external test, cumulative record card (CRC), etc. in order to change and improve existing methods of evaluation.

Certain important recommendations of the Commission pertaining to evaluation in school education are mentioned below:

(1) Lower Primary level evaluation: (i) Bearing in mind the need to promote in children proper habits, basic skills and desirable propensities, efforts would have to be made to initiate the evaluation process. (ii) Classes one, two, three and four should constitute an indivisible unit and the learner should be allowed to progress at his/her own pace.

If it turns out to be impracticable, classes one and two should be combined into a block and learners should be divided into two groups, namely, slow learners and quick learners. Learners should maintain their pace with their own efforts. Orientation course and refresher course for teachers should be arranged to enable them to collect and analyse personal data of learners in order to improve their teaching skills.

(2) Upper Primary level evaluation: The Commission is of the opinion that it is necessary to hold oral tests. The teacher will prepare remedial tests on his own, maintain continuous records for each student and guide him/her accordingly.

Periodic surveys may be conducted to help maintain standards of education by proper means at the end of the primary level. District education authorities may use questionnaire prepared by State Evaluation Organisation to benchmark surveys.

(3) A school may issue certificates to learners on completion of primary level education. But at the same time the school must also furnish CRC and results of internal tests conducted by it.

(4) Conducting internal tests or evaluation is very important and each school should attach due importance to it. The evaluation process must be further widened. It is important that evaluation should cover all that is tested through external examinations as well as those things which are incapable of being tested through external examinations such as learner's personality, taste, inclination, etc. All the education programs of a school must come under internal evaluation. Evaluation should be such that it could help the learner's all round development, besides estimating efficiency for award of certificate.

The Government of India unveiled a National Policy of Education in 1968 in the context of the revamping of education with a view to fulfilling goals in the economic and cultural development of the county, employment generation, social moderaization and national integration. This National Policy says about evaluation that the current examination system based on Reliability and Validity needs reform. Evaluation being a continuous comprehensive process, the current examination system has to be transformed into evaluation. Instead of examining some work done by the learner at a given moment, continuous comprehensive evaluation will be the medium indicating the learner's success and improvement in his efficiency level.

The National Policy of Education 1968 observes in this context—"A major goal of examination reforms should be to improve the reliability and validity of examinations and to make evaluation a continuous process aimed at helping the student improve his level of achievement rather than at 'Certifying' the quality of his performance at a given moment of time."

With regard to the evaluation process, the National Policy of Education of 1986 is also in favour of the reform of the examination system. This Policy stresses the needs to reform the examination system and thus recognizes the importance of evaluation. The recommendations in this area are :

- (1) Examination will be of the objective type, or in other words, evaluation has to be emphasized through objective questions.
- (2) Learning by rote and cramming should not be given importance.
- (3) Comprehension, holistic evaluation system has to be introduced.
- (4) Teachers, learners as well as guardians will be made aware of evaluation.

- (5) Time consuming and expensive examination system has to be changed and examination administration has to be simultaneously improved.
- (6) Teaching materials and methods have to be changed accordingly to facilitate improved examination system.
- (7) Semester system has to be introduced from the Madhyamik level onward.
- (8) Grades must replace marks.
- (9) Instead of external examinations, evaluation through institutional internal tests has to be recognized as the normal and continuous process.

Recommendations of NPE 1986 in relation to examination reforms state: "... National Examination Reform framework would be prepared to serve as a set of guidelines to the examining bodies, which would have the freedom to innovate and adopt the framework to suit the specific situations."

Cł	neck Your Progress-1:
Ins	truction: (a) Please write your answers in the space provided below. (b) Compare your answers with these given of the end of this unit.
a)	What titles were awarded to the learners at Vikramshila Mahavihar?
b)	Which Commission recommended the creation of a Board of Secondary Education?
U)	which Commission recommended the creation of a Board of Secondary Education?
c)	Mention any one of the recommendations made by the Mudaliar Commission with regard to Evaluation.

1.4 Meaning, Nature and Scope of Evaluation

(a) **Meaning and Nature :** Evaluation is an important aspect of the modern education system. With the evolution of the education system, particularly conventional education, the meaning of evaluation has also suffered distortion. Now the question arises: What does evaluation mean? According to a dictionary, 'evaluation' means attributing value to something. To what do we attribute value? In education evaluation is attributing value to an individual's performed conduct. Again, as the individual or learner is a social animal, his/her conduct is linked to the prevailing social situation. A learner's conduct is evaluated and his/her activities are marked 'good' or 'bad', 'right' or 'wrong' against the social backdrop. Hence it is desirable, from the angle of the social backdrop, to change or transform learners' conduct through education.

Seen from the view point of education, evaluation is also specially connected with the goals of education. Evaluation is indeed the method of assessing or estimating how far the learners have advanced on the path of achieving the objectives of education. The goal of modern education is the rounded, total development of the learner. The education process develops not only the learner's knowledge, experience, sense, efficiency, etc. but also his emotional faculties such as thinking, imagination, memory, reason, judgement, etc. It also helps develop his/her social qualities and temperamental characteristics. In fact the personality of the learner develops along its entire gamut. Therefore, the evaluation process ascertains the quality and value of the physical, mental, emotional and socio-cultural conduct of the learner in all their aspects. Thus Wesley says—"It indicates all kinds of efforts and all kinds of means to ascertain the quality, value and effectiveness of desired outcomes. It is compound of objective evidence and subjective observation. It is the total and final estimate."

Again evaluation is not an isolated estimate of the learner's conduct; rather it is a continuous process. Evaluation records all the changes that occur everyday in the different areas of the learner's life during the education process. Hence evaluation is a sequential and continuous process. In this connection the Kothari Commission (1964-66) recommends—"It is now agreed that evaluation, a continuous process, forms an integral part of the total system of education."

Again, Nicto, Rawtree and others are of the view that "Evaluation in education is such a continuous and endless process through which we can make judgement and take

decisions about the aims and success of education comprehensively in the various contemporary perspectives." Evaluation estimates not only a learner's current performed behaviour and conduct, but perforce takes into account past performances also as a background in estimating a current performance. No performance is estimated on the basis of instant value; the past and the future have to be co-related in assessing its real value. That is why it can be said that evaluation is the act of placing value on a performed behaviour in the light of the past performances and future possibilities. Thus the scope of evaluation is very wide indeed.

According to Quillen and Hanna, Evaluation—

- (1) determines the techniques of the entire estimate of a child's behaviour.
- (2) attaches importance to the ever changing development of a child.
- (3) is a dymanic process and functions as an integral part of the teaching and learning process.
- (4) estimates the entire personality of a child.
- (5) depends on the collaborative efforts of a learner, teacher and guardian.

Hence it is very clear from what has been stated above that education and evaluation are very closely interconnected. Evaluation becomes relevant when the time comes to assess and estimate the results of the performance of the teaching-learning process in the context of pre-determined goals. So, three important aspects of the evaluation process can be seen—

- (1) Goals and objectives of education,
- (2) Teaching-learning process coupled with educational experience and
- (3) Evaluation techniques

Professor Benjamin Bloom presents the idea of evaluation through a three-pronged concept. He has illustrated and explained the relationship between the goals of education, learning experiences and evaluation techniques with the help of a triangle. In his opinion, the three things are the interconnected aspects of the evaluation process. According to his description goals of education form the apex of the triangle while educational experience and evaluation techniques are the base angles. The three elements or aspects occupying the three angles of the triangle are interrelated. Hence evaluation is not a process divorced from the goals of education and the teaching-learning process. Thus it is not rational or

reasonable to assess the experience, merits and aptitude acquired by a learner through a single written or oral test or both kinds of test at the end of the year. In a school the teaching-learning process goes on all the year based on the subjects of the objective-oriented curriculum. The learner's knowledge, sense, cognition, skills and ability to use skills, behaviour and tastes undergo progressive and inextriable changes. Hence, successful evaluation demands—

- (1) complete record of the physical, mental and emotional conditions of the learner during the entire duration of education,
- (2) record of the changing development of the learner during the entire duration of education,
- (3) assessment of how far the changes are developmental and successful,
- (4) record of the development of the total personality of the learner.

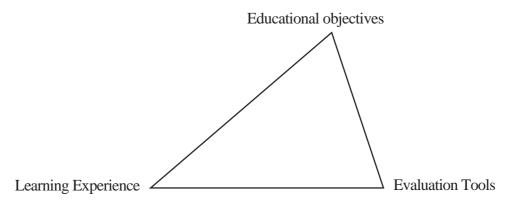


Diagram of Evaluation Triangle according to Bloom

Psychologist Gronland has added another dimension to Bloom's triangular concept of Evaluation. This dimension is value judgement. The Evaluation process is not merely a collection of certain techniques, it also involves an act of putting a value on the teaching-learning experiences acquired by an individual or learner. The person who performs the act of putting value plays a certain part in evaluation with his/her own personal characteristics which impact the estimate of evaluated behaviour and impart an extra dimension to the evaluation process. Hence the private judgement and views of the person who puts value make evaluation significant. Gronland says in this context—"Evaluation includes both qualitative and quantitative description of behaviour plus value judgement concerning the desirability of that behavior.

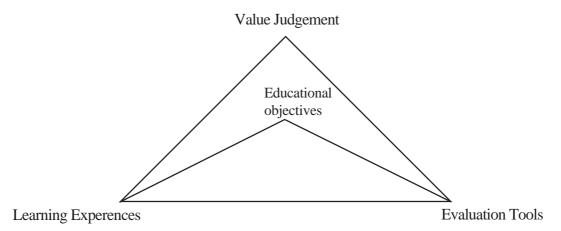


Diagram of Gronland's fourpoint Evaluation

This analysis enables us to describe the characteristics or nature of evaluation which are as follows:

- (1) Evaluation is a scientific, methodical and complex changing process.
- (2) Evaluation is an uninterrupted continuous process closely associated with the learning experience and goals of education of the learner.
- (3) Evaluation assesses the quantitative and qualitative standards of the continuous progress of the learner's development.
- (4) Evaluation totally measures the different characteristics related to the personality of the individual such as physical, mental, emotional, socio-cultural, moral, etc.
- (5) Evaluation is a four sided process, the four sides being (a) Educational objectives,(b) Learing Experiences, (c) Evaluation Tools and (d) Value Judgement.
- (6) In education, Evaluation can provide correct and reliable measurement.
- (7) The chief task of Evaluation is to measure how far the predetermined objectives of education have been effective.
- (B) Scope of Evaluation: Evaluation enjoys immense importance in the field of education. The changes wrought by the education process in a person's life are manifested through the changes in the behaviour of the person. The performed behaviour is evaluated, its relevance and necessity is assessed, in short, value is placed on behavioural performances. The heart of evaluation is the act of putting or placing a value on the performance of a learner. The scope of evaluation includes the assessment of the propriety of those aspects which are closely connected to the changing behavioural performance of a learner.

(1) Assessment of achievement of educational objectives :

As a conscious deliberate process education has certain specific goals and objectives. Now it is important and necessary to find out to what extent the learner has succeeded in his/her efforts to fulfil those goals and objectives through the education process. Evaluation involves a detailed consideration of how this fulfillment and achievement of goals can be assessed, methods, tools and materials to be used and how far theese are fit for use. But evaluation implies not only an assessment of the progress in the achievement of educational goals, but also an estimate of the curriculum pursued, the teaching methods used and above all, the educational institution engaged in this task. Hence, Evaluation is:

- (a) evaluation of the learner's proficiency
- (b) evaluation of teaching methods
- (c) evaluation of curriculum
- (d) evaluation of educational institution.
- (2) Assessment of the comprehensive development of the learner: Modern education system lays emphasis on the comprehensive, total, holistic development of the learner. Comprehensive development means physical, mental, emotional, social, manual and spiritual development of the child. Along with the learner's mental development, stress is laid on the development of the other aspects. The importance and progress of this comprehensive, holistic development of the learner can be understood only through the Evaluation process. Thus the methods employed to measure progress, different tools and materials of evaluation, techniques and the methods of effectively applying them are subjects to the discussed under Evaluation.
- (3) **Forecast of the learner's future :** It is important to know the current state of the different developmental aspects of the learner at a given point of time during the learner's education because it shows how far he/she has achieved the objectives; but it is not the only task of evaluation. By assessing the current condition of the learner it is possible to forecast or give an idea of the kind of situation he/she is likely to experience in future or of the future educational situation in the perspective of the nature of his/her characteristics and the environmental situation.
- (4) **Vocational and Educational Guidance for learners :** We have already seen that Evaluation is a holistic concept which in order to work, requires that extensive data

about the different aspects of the development of the learner's life should be collected. Guidance can also be imparted to the learner by analyzing and estimating all this data. Indeed, imparting educational and vocational guidance to the learner is a major responsibility of both the teachers and the institution. Thus the study and analysis of the collected data, its importance and significance fall within the scope of Evaluation studies. This is why it is said that Evaluation also helps in giving educational and vocational guidance to the learner.

Check Your Progress-2:
Instruction: (a) Please write your answers in the space given.
(b) Compare your answers with these given of the end of this unit.
a) Write about two characteristics of Evaluation.
b) Write about the scope of Evaluation.
c) What are the four sides of the four-sided process of Evaluation?

1.5 Evaluation and Measurement in Education

The term 'Evaluation' is a part of modern concepts, which has evolved over long years and achieved its present form. In our daily life we often use the words 'Evaluation' and

'Measurement' synonymously. However, these words or terms are not synonymous in Education. When numbers are assigned to objects or events on the basis of specific methods, the process is called Measurement. According to Tyler, measurement is the process of assigning number according to recognized methods. According to Halmstadter, measurement is a numerical statement of the existing quantity of different characteristics in an individual or event. In Nunnaly's opinion—

"Measurement consists of rules for assigning numbers to objects in such a way as to represent qualities of attributes."

In J. P. Guilford's view—

"Measurement means the description of data in terms of numbers and thus, in turn, means taking advantages of the many benefits that operate with numbers and mathematical thinking process."

By analysing the definitions given above, we arrive at certain differences which separate Measurement from Evaluation.

These are:

- (1) Measurement is used in a specific and narrow sense. Measurement means we can measure a certain characteristic or ability of a learner. But all the characteristics or abilities of a person cannot be gauged through measurement. On the other hand it is possible to ascertain the qualitative standard of all the characteristics or abilities of a person or learner through evaluation. For example, it is possible to measure a learner's knowledge of mathematics, but the qualitative standards of the physical, mental, emotional, social and moral characteristics of the learner can be ascertained or assessed only through Evaluation.
- (2) Measurement is of a limited nature. In measurement the characteristics and behavioural performance of a learner are considered separately. For example, when we estimate a learner's knowledge of geography or natural science, we do so separately. But in evaluation a learner's total progress is taken into account. In this sence evaluation is of a holistic nature.
- (3) In measurement, when the occasion demands, an examination or test is temporarily devised to assess the required knowledge or experience of a learner. But evaluation is a continuous process. The evaluation process is carried out from a holistic viewpoint to properly ascertain the quality of the gradually evolving personality of the human child or learner.

- (4) Measurement gives an idea of the quantitative aspects only of a merit or characteristic of a learner, but does not supply much information about the qualitative aspect, while, on the other hand, evaluation unveils both the qualitative and quantitative aspects of the merits or characteristics, of a learner.
- (5) The results of measurement may not be always significant and reliable for the teacher; but evaluation is specially important for teachers because it is carried out against a pesspective of educational objectives.
- (6) Measurement does not require much time or money because the application of a single test is enough to find out about a given characteristic of a learner. But evaluation requires the application of multiple tests, multiple techniques and thus it is more time-consuming and more expensive.

The foregoing discussion shows that the scope of educational evaluation is very wide indeed. It includes study and analysis of all kinds of behaviors of the learner during education, the past, the present and the future possibilities of the learner's life, educational experience, evaluation of curriculum, teaching methods, pedagogy, evaluation of teaching institution, etc.

Che	eck Your Progress-3:
Instr	ruction: (a) Please write your answers in the space provided below.
	(b) Compare your answers with those given at the end of this unit.
a) V	What is Measurement?
b) (Give two examples of Measurement.

c)	State any one of the differences between Measurement and Evaluation.

1.6 Examination and Evaluation

Examination

The term 'Examination' derives from the Latin 'Examen' which means the balance holding the scales and thus implies method or methods of assessment and estimation. Generally the word 'examination' means the assessment or the ascertaining of a learner's acquired knowledge and skills on the basis or in terms of a definite standard or benchmark. Thus the examination system is an important part of assessing the entire education system. Teaching methods are a principal element of the education system. And teaching is done by teachers. But a teacher's task does not end even when something has been taught. A teacher has to ascertain how far his/her learners have learnt the subjects taught or whether the objectives of education have been achieved. This is where examination comes in. Examination assesses the changes brought about by teaching/education in the behaviour of the learners. In fact the results of an examination provide an authentic record of what and how much a learner has learnt at a certain level of education.

It is seen that often the words 'examination' and 'evaluation' are used synonymously in the discourse of education. Yet there is a gulf of difference between the objectives and activities of these two methods. Through an examination the learner's acquired knowledge of a subject is separately measured while evaluation aims at a total measurement of all the changes effected in the behaviour of the learner. The different physical, mental, emotional, social qualities of the learner are measured. The scope of evaluation is just as broad as the scope of examination is narrow.

Purpose of Examination:

(1) Measurement of the learner's acquired knowledge and skills:

A principal aim of examination is to measure how much knowledge and skill has been acquired by a learner at a certain level of education within a stipulated time frame.

(2) Helping identify learner's defects:

With the help of examination results a teacher identifies her/his learner's defects and takes corrective measures as well.

(3) Measurement of desirable merits and personality of learner:

Measurement of acquired knowledge apart, examination also measures the development of qualitative aspects such as a learner's mentality, patience, tolerance, concentration, sense of discipline, ability to practice, etc.

(4) Motivation to move on to the next stage :

From examination results the learners get an idea of their status. Similarly they derive motivation from this idea to get on to the next stage.

(5) Promotion to the next higher level or class:

Candidates who have succeeded in examinations are promoted to the next higher class.

(6) Forecast of a learner's future progress:

By analysing the examination results a teacher can often ascertain the direction of the learner's tendencies and inclinations and guide the learner accordingly and also forecast the learner's inclination towards or ability to acquire higher education, if any.

(7) Measuring a teacher's fitness and efficiency:

When a learner is examined, the teacher's fitness and efficiency is also examined because the results reflect the teacher's fitness and efficiency as well.

(8) Assessing teaching methods and curriculum: Through examinations it is also possible to assess the effectiveness of the methods used by a teacher in the class while teaching and the adequacy of the material of the curriculum pursued.

(9) Vocational guidance for learners:

A learner's future vocation or professional life is just as important as the subjects which he/she will study in their educational career. This depends on the learner's own intellectual capacity or ability and specific inclinations or propensities. The learner can be given educational and vocational guidance on the basis of the assessment of their ability, aptitude and inclinations reflected in the examinations.

(10) Competitive selection in employment:

The effectiveness of any organisation depends on the efficiency and ability of its employees. Therefore only those employees who succeed in competitive examinations and prove their ability secure employment. The task of selection is carried out on the basis of competitive examinations.

Difference between Evaluation and Examination:

In the modern education system the Evaluation and Examination methods are used almost synonymously. But as a matter of fact, there is considerable difference between the two methods. Examination has the very narrow objective of only measuring the knowledge of subjects acquired by the learner. But the objective of evaluation is much wider because the holistic development of the learner is measured through evaluation. Judged in this way the differences that emerge between evaluation and examination are mentioned below:

Difference between Evaluation and Examination:

Evaluation			Examination		
(1)	The objective of evaluation is wide and multi-faceted.	(1)	The objective of examination is very narrow and one-sided.		
(2)	Evaluation is a hotistic process.	(2)	Examination is but a partial process and a part only of evaluation.		
(3)	Through evaluation the entire development of the learner is assessed.	(3)	Only the learner's knowledge of subjects is measured through examination.		
(4)	The learner's primary experience is seriously considered in evaluation.	(4)	Primary experience is not usually considered in examination.		
(5)	A learner's characteristics are assessed both quantitatively and qualitatively in evaluation.	(5)	Only the quantitative success of the learner is assessed in examination.		
(6)	Evaluation is a complex process.	(6)	Examination is an easy process.		
(7)	Many techniques are used in evaluation.	(7)	Only a certain kind of efficiency is tested through an examination.		
(8)	Evaluation is an endless continuous process and also time-consusning.	(8)	Examination is an isolated, instant process and can be quickly carried out.		

Evaluation	Examination
(9) It is possible to ascertain the different abilities and potentialities of a learner through evaluation.	(9) It is possible to measure only the acquired knowledge of a learner through examination.
(10) In evaluation—teachers, teaching methods, carriculum and institutions, too, are evaluated.	(10) Only a partial measurement of the knowledge of a subject forms the basis of assessment in examination.

Examination can be divided into three groups depending on the characteristics of the answers given by learners such as :

- (a) Oral Test
- (b) Written Test
- (c) Practical Test
- (a) Oral Test: In this type of test the examiner orally puts certain questions to a learner (examinee). The examinee also answers these questions orally. The learner's ability to read, to express himself/herself cogently, correctness of pronunciation, memory, ability to explain, taste and temperament are assessed along with the learner's knowledge of subjects taught through a test of this kind.
- (b) Written Test: In a test of this kind the examinee (learner) answers the written/printed questions in writing. Depending on the nature of questions relating to the subjects, this method is generally followed in examinations. Teacher or examiner assesses the quality of the answerscripts. The questions here can be of the following kinds:
 - (i) essay type, (ii) medium type, (iii) short type, (iv) objective type.
- (c) Practical Test: Practical tests are conducted to assess the applicability of the learner's theoretical, textual knowledge. Such tests are in vogue to measure the learner's knowledge of subjects in science, technology and the applied sciences. In a test of this kind an examinee has to answer oral questions as well as perform tasks with their own hands.

External and Internal examinations

Examinations can be divided into two groups from the administrative point of view: (i) external examination and (ii) internal examination.

- (i) External examination: An examination conducted by an organisation or institution outside the school is an external examination such us the Madhyamik Examination conducted by the Paschim Banga Madhyasisksha Parshad and the Higher Secondary Examination conducted by the West Bengal Higher Secondary Council. At the end of each level or stage of education the learner proves his proficiency and knowledge acquired on the basis of the curriculum through on examination conducted by an external agency. The external agency is responsible for paper setting, evaluation of answerscripts, results and the award of certificates on the basis of results.
- (ii) Internal Examination: When an examination is conducted by the institution or school where the learner studies with the help of its own teachers, it is called an internal examination. Based on its specific curriculum, a school conducts several kinds of internal examinations such as weekly, fortnightly, monthly, quarterly, half-yearly and yearly or annual tests. These tests are conducted to measure the learner's acquired knowledge at regular intervals.

Demerits of Conventional Examination System:

The modern examination system which had begun in India several centuries ago extended all the way from the primary to the University level. Later on in various periods this system was criticized. The conventional examination system has also been reformed to a great extent on the basis of the recommendations of different commissions and committees set up both before and after Independence. Instead of only essay-type questions, examinations now consist of different types of questions such as objective, essay-type, etc. Even so, there is discontent among learners, guardians, teachers, educationists and so on. Though the critique of this exam-centred system and the excessive importance attached to it has crystallized at various levels with a degree of intensity at once visible, no way out of this deadlock is in sight yet. Naturally questions are raised about the demerits of the conventional examination system which are briefly mentioned below:

- (i) The conventional examination system inflicts considerable physical and mental stress on the learners who are anxious about failure or bad results in examination and thus find themselves vulnerable to pressures exerted both by family and society. Yet this kind of examination system does not much help learners cope with the competitive examinations which provide a gateway to employment and occupation.
- (ii) Many teachers and educationists complain that school education achieves little owing to the pressure of the examination system.

(iii) Due to the stress generated by the conventional examination system the relations between parents and children and teachers and learners become strained. This results in unrest in the family.

Ch	neck Your Progress-4:
Ins	truction: (a) Please write your answers in the space provided below.
	(b) Compare your answers with those given of the end of this unit.
a)	What is the origin of the word examination?
b)	Write about any one of the differences between examination and evaluation.
c)	Write about the different types of written test.

1.7 Place of Evaluation in Pre-primary Education

The children studying at the Pre-primary level are less than six years old. That is why these is very little room for written tests at this level. At this level evaluation is of a different kind. Observing the child's progress is important; it is also important to induce the child to observe, see, hear and understand different phenomena and measure how far he/she can do these things. Therefore, at this level, instead of written tests and high level evaluation, continuous, consistent evaluation is much more important and the need of the hour.

We should precisely understand the importance of evaluation in the curriculum.

Briefly, evaluation creates the structure of a project, and specifies how knowledge and proficiency, necessary at a certain level in the structure is to be measured. Evaluation shows not only the learner's progress and success, but the merits and demerits of the teaching, learning process as well. Evaluation also identifies the defects of curriculum, teaching aids and in teaching and even in examination and shows how the defects can be removed. Hence evaluation is concerned not merely with the child's progress during a certain period, but chiefly with the child's each action and reaction throughout the year and regularly observes all the details pertaining to this. The teacher will analyse all this data, identify the defects in each case and give instructions to remove them. As a result of this, a number of defects/errors will be removed in the next evaluation and it will be seen how far the child has progressed from the previous stage. Therefore, evaluation has two uses, namely, (i) to supply the child with the right kind of study material and (ii) to continuously improve the teaching-learing process. To be more precise, evaluation is not merely for teachers and learners, nor is it to be used only once at a specific time of the year to make decisions after the completion of the curriculum. If evaluation is accepted and used in this way, it will be used as a method of learning and a subject for teachers and learners and a time will come when it won't be any more necessary for teachertraining, teachers and learners. More importantly, in that case it will have nothing to do with curriculum. Another important aspect is that as a result of this the learner's misgivings, anxiety and tension about the results of examination will increase. It can only adversely affect the future of the child. If, on the other hand, evaluation is connected to the curriculum and accepted as a continuous method, the learner, too, will accept it as a method designed to ensure progress and remove defects of learning, instead of viewing it with anxiety and apprehension. Hence the scope of evaluation in the curriculum is very wide. Hence, too, through evaluation we can assess not only the child's progress in education, but also the other aspects of his/her life such as development of personality, right control of emotional response, widening of outlook, etc.

Goal of education and the importance of evaluation should be considered simultaneously. If, consequently, evaluation is regarded as a continuous process and not merely a reformed format of examinations, it will be possible to ascertain the merits, demerits, defects and shortcomings (at a given level of the child's education) of teachers, learners, educational methods, school/institution, curriculum and even parents, classmates, etc, remove the defects, enhance the positive aspects and thus change for the better the areas of the child's

progress. It is important for teachers also because by taking advantage of evaluation they, too, can initiate change in these areas.

Evaluation measures a child's ability in the areas mentioned below. It is important to know these areas which are related to the other facets of education such as curriculum, methods of eduction, teaching aids, etc.

Evaluation attaches importance to the following aspects in the learning of a learner:

- (a) to find out how far the learner has acquired different subject-related skills;
- (b) to evaluate the specific skills which the learner has acquired;
- (c) to improve each skill of the child, his/her curiosity, propensity and motivation;
- (d) to lay the foundation for the child's physical well-being and creative life;
- (e) to control and direct the child's learning, behaviour and improvement;
- (f) to help the child respond the right way to different situations and opportunities inside and outside the school;
- (g) to observe and evaluate whether the child is able to apply and use in different situations and conditions what she/he has learnt;
- (h) to evaluate if the child can perform collectively and on his/her own;
- (i) to enhance analytical and evaluative skills;
- (j) to find out how much he/she is aware of social and environmental issues and how to enhance this awareness:
- (k) to assess the child's ability to be associated with various projects in the context of social and environmental issues;
- (l) to preserve, retain for a specific period of time what the child has learnt.

1.8 Summary

Though it has a long history of application, evaluation is not of a very ancient lineage. After Independence a few commissions were set up in India to reform the examination system. The University Commission (1948) said that if education needed reform, the examination system needed more urgent reform. The Mudaliar Commission (1952-53)

recommended examination reforms. According to the commission, instead of written examinations, a total assessment of the child was absolutely necessary. But it was the Kothari Commission (1964) which recommended evaluation most emphatically. It recommended the use of cumulative cards for learness at the lower levels. The National Education Policy (1986) also talked about evaluation.

The second part discusses the meaning, nature and scope of evaluation. Evaluation is not an isolated process. It is a continuous and endless process which has three important aspects:

- (1) goals and objectives of education.
- (2) Teaching-learning process and
- (3) Evaluation techniques.

These three aspects are interrelated. Grunland has added a fourth dimension-value judgement. The scope of evaluation is wide. The subjects related to the changed behaviour of the learner also come under the scope of evaluation.

The third part deals with evaluation and examinations and discusses the objective of examination, the differences between examination and evaluation and different types of examination. The different defects of the examination system are also discussed.

The last part of this unit discusses the place of evaluation in primary education.

1.9 Exercise

- (a) Answer each of the following questions using not more than 150 words:
 - (1) What does the University Education Commission say about examination reforms?
 - (2) Define Evaluation.
 - (3) How many kinds of questions are there in written tests?
 - (4) Write about two defects of the conventional examination system.
- (b) Answer each of the following questions using not more than 300 words:
 - (1) What does the National Education Policy (1986) say about Evaluation?
 - (2) Write about Grunland's views on Evaluation.
 - (3) What is the objective of examination?

- (4) Write about the important aspects of evaluation.
- (c) Answer each of the following questions using not more than 500 words :
 - (1) What are the recommendations of the Kothari Commission regarding Evaluation?
 - (2) Explain the characteristics of Evaluation.
 - (3) Discuss the scope of Evaluation.
 - (4) What are the differences between examination and evaluation?

1.10 Hints to check your progress

Clues-1

- (a) Sthavir, Bahusruta, Pandit, etc.
- (b) Saddler Commission.
- (c) Evaluation at the lower primary level.

Clues-2

- (a) It is a scientific method; it is a continuous process.
- (b) Assessment of fulfillment of educational objectives and forecast of the future of the learner.
- (c) Learning experience, evaluation method, objectives of education and value judgement.

Clues-3

- (a) Measurement of a characteristic in an individual or thing.
- (b) Awarding marks to answers in an answerscript in examination and 1 kg of sugar.
- (c) Measurement is used in a specific and narrow, restricted sense, but evaluation is used in a much wider sense to asses the qualitative standard of an individual or thing.

Clues-4

- (a) The English word Examination derives from the Latin 'Examin'.
- (b) Evaluation is broad and many-sided but examination is restricted and one-sided.
- (c) Essay-type, medium, short, objective.

Unit 2 ☐ Concept of Continuous and Comprehensive Evaluation

Structure

- 2.1 Introduction
- 2.2 Objectives
- 2.3 Continuous and Comprehensive Evaluation (CCE)
 - 2.3.1 CCE—What, why and when?
 - 2.3.2 CCE—Nature and Scope
- 2.4 Aims of CCE in Pre-primary Education
- 2.5 Summary
- 2.6 Exercises
- 2.7 Hints for Check Your Progress

2.1 Introduction

We discussed Evaluation in Unit-1 in which we looked at different concepts of evaluation and the reports of various commissions and committees.

Here we will talk about continuous and comprehensive evaluation on which stress is laid in pre-primary education.

Children studying at various levels of pre-primary education are between 2 and 6 years of age, that is to say, more than 2 years old but less than 6 years. All their sense organs develop during this period. Hence promoting the growth and development of the different sense organs of children is the basic goal of education, the other important goals being social and intellectual development.

2.2 Objectives

After studying this Unit, you will gain an idea of the following:

 You will be able to know, understand and talk about the meaning, nature and scope of CCE (Continuous and Comprehensive Evaluation). • You will be familiar with the aims of CCE.

2.3 Continuous Evaluation

The 86th Constitutional Amendment (2002) made education free and compulsory (Section 21A) for all children between 6 and 14 years of age. Though the fundamental rights of the constitution do not include the right to education of children less than six years old, Section 45 of the Amendment mentioned above states:

The state will be responsible for the care and childhood education of a child upto the age of six years.

The Charter of Children's Rights was accepted at a un Convention in 1989. The Government of India signed the Charter in 1992. The rights of children included in the Charter are divided into 3 groups:

- (1) A Child's right to Dignity and Expression.
- (2) A Child's Development.
- (3) A Child's right to Care and Protection.

Some of the statements made in the report of the National Commission for Protection of Child Right (NCPCR) in three parts for children's development are quoted below:

- (i) Dignity and Expression:
 - I have rights being a child (Article 2)
 - I have the rights to express my views freely which should be taken seriously (Articles 12, 13)
 - I have the right to make mistakes, and everyone has the Responsibility to accept that we can learn from our mistakes (Article 28)
 - I have the right to be included whatever my abilities (Article 23).

(ii) Development:

- I have the right to a good education, and everyone has the Responsibility to encourage all children to go to school (Articles 23, 28, 29)
- I have the right to good health care, and everyone has the Responsibility to help others get basic health care and safe water (Article 24)
- I have the right to a clean environment and everyone has the Responsibility not to pollute it(Article 29)
- I have the right to play and rest (Article 31)

(iii) Care and Protection:

- I have the right to live without violence (Articles 28, 37)

This is precisely where the significance of CCE lies.

2.3.1 CCE — What, why and when?

In the very beginning we will find out what CCE is.

All of us want a child to develop in his/her own way, we want his/her needs, taste and creativity to develop according to their own pace and in their own way. Hence we want the school to be the kind of place where a child can learn willingly, according to his/her own pace. But who knows what a child's wish is and how? What are a child's needs and how are these being fulfilled? How can one measure it? How can a child's creativity be promoted? And how do we know that it is being promoted the right way? It is imperative that these questions be answered. We can hardly measure these things only through examinations and examination results. On the other hand we need to deeply observe the child, observe and understand thoroughly his/her emotions, affection, likes and dislikes. Then a proper sequencing and analysis of data received and collected can reveal the extent of the child's progress.

But the reality is that teachers, guardians and school authorities think differently, which, however, hinders the child's growth and development.

Animal School

Long years ago animals decided to do something spectacular to solve the problems of the 'new world'. Numerous parleys followed and it was decided to set up a school where little, young animals could study and learn manners. Like humans they devised an 'activity based' curriculum which included racing. tree climbing, swimming and flying. In order to implement the curriculum with ease, all the subjects were made compulsory.

The duck could fly wonderfully well, in fact it could fly better than its instructor. Having had to follow all the rules, however, in learning how to fly, the duck got only a pass grade in flying and did miserably in running or racing. Because it had done poorly in racing. the duck had to stay back even after school hours and give up swimming altogether. It continued to practice racing and consequently the web between the toes in its feet split — a handicap which further reduced its swimming skills as a result of which the duck got very ordinary grades in swimming. But the school accepted ordinary grades, so nobody else bothered about it except the duck.

The rabbit was the best runner or racer in its class, but the stress of learning the very tough rules of swimming inflicted on it an ailment of the nerves.

The squirrel had remarkable skills in climbing trees. But by and by the squirrel, too, began to despair because the instructor said you had to fly from the ground. You could not take off after climbing a tree. In the end, due to excessive labour it contracted insomnia or sleeplessness and got a 'C' grade in tree climbing and a 'D' grade in racing.

The vulture is always disobedient and unruly. So it was placed under severe discipline. It outstripped all in getting to the top of a tree. But no, you couldn't fly and land on a tree top, you would have to climb up from the bottom. And this was where it came a cropper.

At the end of the year the eel—the best handicapped swimmer got the highest grades in racing, tree climbing and flying and the highest honour was conferred on it.

Though the example is drawn from the animal world, it jolly well applies to human schools, too. And we also know from a number of different contexts that it is very important to measure a child's progress achieved in different areas. The issue assumes more urgency in pre-primary education because any failure on the part of the child to grow and develop properly may very well adversely impact the rest of his/her life. Continuous evaluation enables us to measure in an integrated manner the child's teaching-learning in different areas which are as follows:

- Why measurement is necessary for children?
- What are the things which require measuring?
- When should measurement be carried out?
- How is it to be done?
- How should data received be used?

In brief, measurement methods are included in the teaching-learning methods of children.

From measurement we can find out:

- In which areas does the child need to develop at the pre-primary stage?
- To decide what is desirable for the child on completion of pre-primary education.
- To prepare a list of what is needed in which areas for the development of the child's personality.

Then what is continuous and integrated evaluation?

Continuous and comprehensive evaluation is school-based evaluation of a learner. In this evaluation the learner's comprehensive development is measured. This evaluation lays stress on two objectives of the learner. These are : the continuousness of evaluation and measurement of expanded learning and behavioural change.

The two terms, namely, 'continuous' and 'integrated' are important here. 'Continuous' implies that the evaluation of the various stages of the 'growth and development' of the learner is a continuous process. On the other hand, measurement carried out in the teaching-learning method does not cover so extensively the growth and development of the child. In continuous evaluation each learning unit is frequently measured, the causes of

disparity between learning and expected results are identified, efforts are made to remove the causes and finally, after another measurement and use of feedback, the findings are passed on to the teachers and learners for self-evaluation.

On the other hand, 'integrated' also implies the scholastic and co-scholastic growth and achievements of the learner. Since a learner's ability and propensity cannot be entirely assessed through written tests only, different tools and techniques are also used to measure abilities and propensities of learners. The following aspects of learners are measured:

- Knowledge
- Understanding
- Applying
- Analysing
- Evaluation and
- Creativity

In order to understand CCE, we need to know its objectives in the first place which shed light on its necessity.

The objectives of CCE:

The Examination Reform Section of NCERT has laid down the following as the objectives of CCE :

- to aid the development and growth of cognitive, mental and sensory skills.
- to stress the process of thinking, the act of thinking instead of memorizing.
- to accept evaluation as an integral part of the teaching-learning process.
- to regularly ascertain and identify learners' problems and evaluate their success through the learning-teaching process in order to solve the problems.
- to use evaluation as a means of improving standards in order to correctly achieve the stated goals.
- to ascertain the social utility, necessity and right application of a project and take proper decisions about learners, learning techniques and learning environment and
 - to accept teaching and learning methods as learner-certric methods.

(Examination Reform, NCERT)

When CCE?

Both teaching and learning are continuous processes which cannot be properly evaluated through a one-off evaluation because learning begins simultaneously with teaching and this process goes on and on. Hence it is important to find out how much learning is taking place as each part is taught.

Therefore, continuous and comprehensive evaluation is what education needs. It will be based on a comprehensive print-of-view and take into account the development of all the aspects of a learner.

Hence the question arises: when does evaluation take place? In CCE evaluation will have to be continuous with regular intervals because the teacher will examine the progress after one evaluation, record it, give his/her views and continue efforts to remove drawbacks by identifying the causes.

This can be done in two ways:

- (1) Everyday: In this case the teacher will interact with the child both inside and outside the classroom and measure him.
- (2) Occasionally: In this case the teacher will occasionally observe the learner and try to find out about the changes achieved through reflection of data received.

In CCE all the developments of the child throughout the year are continuously observed and recorded. Recording is done in two ways: Formative and Summative.

(a) Formative Evaluation:

During teaching the teacher will regularly monitor the learner's progress and mould his/her subsequent teaching accordingly. To this end, different indices can be used and the Outline of National Curriculum 2005, Right to Education Act 2009 can be used, too.

The secondary Education Board, West Bengal applies the following indices:

- (1) Participation,
- (2) Questioning and Experimentation,
- (3) Interpretation and Application,
- (4) Empathy and Cooperation,

(5) Aesthetic and Creative Expression.

Using these indices the teacher will regularly measure the learner's progress. He/she may not need all the indices at once on the same day; but these will be used as and when needed.

(b) Summative Evaluation:

This kind of evaluation is normally employed for awarding grades and it is also a part of CCE. This kind of evaluation can be carried out three or four times.

There are visible and material differences between these two methods of CCE. Formative Evaluation is diagnostic while Summative Evaluation is judgemental.

2.3.2 CCE — Nature and Scope

Nature: To little children who go to school, the school presents a novel world where they find, instead of the familiar faces of their families, many playmates of the same age. Each has his/her own way of walking, moving, talking, looking, dressing and behaving. The child adapts to all this and also imitates the way their teachers speak, which-he/she noticesis different from the way their parents speak. Affection and praise please the child, make them feel proud too. Children learn to compare themselves to others. Reproach hurts them and they keep themselves apart or tend to stay apart. Teachers often acquire a variety of experience in school. Here is an example:

After an examination children were awarded marks. Most of them scored around 6 out of 10. Only Karina and Saibal scored 8 and 3 respectively. When the teacher announced the marks, the other children were eying Saibal and laughing. Consequently Saibal grew thoroughly unwilling to go to school. Though his parents persuaded him a great deal, he could not bring himself to go back to school when he recalled what had happened that day.

A number of questions arise in this situation. How were the marks awarded? Do the marks awarded in an examination provide enough basis for the measurement of a child? Written examination apart, what is the child's role in the other examinations? Does Saibal go to school every day? And a host of other questions of this sort. This should also be reflected in the examination results. Again, on the other hand, if it is seen that Saibal excels the rest in many fields, the question then arises as to why he does poorly in this area? What

does the teacher concerned think about it and plan to do? Is it known what Saibal says or thinks about it?

All this will figure in CCE in which singly or collectively as a group unit all this is used as evaluation method by the learner and his classmates.

Data/information provided by parents/guardians, the child's friends/classmates, other teachers and neighbours may also be used as information/data for evaluation.

The significant concepts in teaching are:

- (a) If they are allowed to learn according to their own pace and in their own ways, each child can learn.
- (b) A child can learn more through play and activities and learn also through mutual interaction.
- (c) Since learning is a continuous process, a child learns even when not in school. Hence there is a need to connect school learning to what the child learns at home and in the society at large.
- (d) A child can structure their own knowledge, so it is not entirely correct to assume that a child can learn only from their teacher. In other words a child can create new thoughts on the basis of knowledge already acquired and draw their own conclusions. This is the basis of constructivism.
- (e) At the primary level a child can learn better through their own experience and create new experience by applying the old ones.
- (f) Children's teaching is not linear, but circular, they observe repeatedly, go wrong and make more efforts. And this is how children teach themselves.

Therefore, a teacher can find out all this through CCE and take necessary steps.

Scope:

The scope of CCE is very wide indeed because here, instead of measuring the child's progress in education through a test or two, a host of factors such as the work they do everyday, behaviour, habits, changes in habits, progress in and methods of learning are taken into account. Therefore, in order to grasp the scope of CCE, it is necessary in the

first place to understand where it differs from ordinary evaluation and the extent of such difference. Now we will look at it in more detail. The thrust of CCE is as follows:

- (1) Ordinary evaluation lays stress only on subject-specific progress; CCE lays stress on all-round progress achieved by a child.
- (2) Here evaluation is not merely confined to measurement; but efforts are made to improve measurement methods as well.
- (3) Instead of being confined to qualitative evaluation, CCE stresses both qualitative and quantitative measurement.
- (4) Instead of employing only a few methods, numerous methods are used in carrying out evaluation.
- (5) Here the progress of the child as a flesh-and-blood human being is taken into account.
- (6) Here evaluation and teaching-learning are put into practice simultaneously. In other words, the scope of CCE is very wide.

In CCE the following aspects of the child are evaluated:

- state of health
- progress in studies
- personal and social qualities
- curiosity
- propensity/tendency
- skills in co-curricular activities
- sense of values
- self-consciousness
- ability to solve problems (age specific)
- decision-making ability
- ability to pursue and develop complex thoughts
- domestic, social and school relationships and other similar qualities.

Check Your Progress-5:
(a) Please write your answers in the space provided below.
(b) Compare your answers with those given at the end of this unit.
(a) What is stated in Section 45 of the 86th Constitutional Amendment?
(b) Define Continuous and Comprehensive Evaluation (CCE).
(c) Write one of the objectives of CCE.

2.4 Aims of CCE in Pre-primary Education

The goal of education is the development of the child as a complete human being which implies comprehensive and full development in physical, psychological, emotional and other spheres. Hence the goal of CCE is to assess the extent of the child's development in those areas, the need of further development, ascertain, identify and evaluate the ways of attaining it and enable the child to reach their goal by following the right methods. The family or society cannot accomplish all this by itself. That is why the child needs a school.

And that is why the child needs a secure, normal and pleasing environment at school. In this way the child will easily learn and learn fast. To achieve this, however, the child's school will have to introduce a few changes. What are these changes all about? The school will have to supply materials necessary for children's learning, teaching aids and provide space for children's play and similar activities. So the school will have to be converted into a place where children can find fun and delight. Only then will CCE be possible and feasible. That is why child education has been transformed from a teacher-centric method into a child-centric method. Formerly the teacher lectured and the learners listened and wrote without asking questions; the teacher instructed and the learners followed the instructions. In brief, this was the teacher-centric method.

But now cooperation between children and teachers will drive learning forward. In NCF-2005 and NCFTE-2009 instructions, constructivism has been invoked to make learning more child-centric.

Let us now try to understand the characteristics of child-centric education which has already been mentioned. In this area:

- The teacher will create opportunities for learning and help the learner achieve meaningful learning;
- The teacher will create a climate for the child's learning in which the child can observe, experiment, experience and thus form a basis for conceptualisation.
- Children will actively participate in different activities.
- The child constructs his/her knowledge on the basis of the knowledge he/she acquires inside and outside the school.
- The child acts on his/her own or collectively, discusses things and accomplishes learning by interacting with others.
- A time-frame is created according to the child's demands and needs.
- Seating arrangements are made in the classroom to enable the child to work and function easily.
- A variety of teaching aids is available and employed in child education.
- Recognizing the child's work and achievement.

- In the teaching-learning process, measurement is a method.
- Even as the children learn, measurement is carried out.
- Measurement is presented in the shape of a report.
- The qualitative aspect of the child's progress is also mentioned in the report which
 presents all information and data relating to every aspect of the child's development.

At the Pre-primary stage not much stress is laid on written test; but due stress is laid on the healthy bringing up of children. In order to ensure the development of character, stress is also laid on the inculcation of proper habits.

An expert committee lays stress on the following in Pre-primary education:

- "(1) To develop capacities and healthy physical growth of the child through play activities.
- (2) To help the child develop good social habits as an individual and as a member of the society.
- (3) To develop moral values in the child.
- (4) To enrich the child's experience by developing imagination, self reliance and thinking power.
- (5) To help the child towards appreciating his/her national cultural background and customs and developing a feeling of love and care for other people and a sense of unity leading to national harmony.
- (6) To develop language and communication skills in the mother tongue."

The goal which we all share is to ensure learning of a high quality for the all-round development of the child. However, there may be a variety of views about such learning and the way to develop it. But CCE aims:

- (a) to observe the influences at work on the child's personality, learning, improvements and changes experienced by it at a given point of time;
- (b) to delineate the areas of personal needs, special needs and other needs;
- (c) to consolidate teaching-learning planning to a greater extent;

- (d) to make the child gradually understand what she likes and dislikes, what she wants or does not want.
- (e) to ascertain, estimate and measure how far the teaching objectives have been achieved.
- (f) to inform the child's guardian, school and others of his/her progress with authentic evidence.
- (g) Remove dread of examinations and organise holistic evaluation.
- (h) Help each child in his/her own way.
- (i) Promote self-confidence in children.

Instructions: (a) Please write your answers in the space given below.	
(b) Please compare your answers with those given at the end of this u	nit.
(a) What is the goal of education?	
(b) How is holistic evaluation possible?	
(c) Write a characteristic of continuous and comprehensive evaluation (CCE).	

2.5 Summary

Continuous and comprehensive evaluation has been included in the 86th Constitutional Amendment through Section 21A. The importance of the subject increases in view of the fact that it is linked to the fundamental rights. However, Section 21A applies to children in the age group of 6 to 14 years.

On the other hand Section 45 of the Constitution states that the care and education of children upto the age of six years will remain the responsibility of the state.

This is exactly where the importance of CCE at the Pre-primary stage lies. The Charter of Children's Rights was adopted at a UN Convention held in 1989. India signed the charter in 1992. The NCPCR published by the Government of India contains instructions for child development. CCE is very important for the full development of children as envisaged in the constitution and by the Government.

CCE stresses two things, namely, continuity of evaluation and measurement of learning and behavioural change which will be continuous and carried out from one day to the next, if possible. Continuity and comprehensiveness are thus important in such evaluation (CCE). CCE is again divided into two kinds: Formative and Summative. Hence it can be said that the nature of CCE is somewhat different from that of other evaluations and its scope is indeed very wide.

Since children at the Pre-primary level are below 6 years of age, the goals of evaluation are somewhat different. At this stage sensory development and growth is stressed, curriculum is accordingly drawn up and critically evaluated. The evaluation chart which will be given to children will contain qualitative and quantitative measurements of his/her continuous development so that the school, parents and even the child can gain an idea of the progress made and teachers and guardians will be able to decide how the child can achieve further the progress.

2.6 Exercise

- (a) Answer each of the following questions within 150 words:
 - (1) Which rights of children have been recognized by the UN Convention of 1989?
 - (2) Which aspects of the child can be measured through continuous evaluation?
 - (3) Write how continuous and comprehensive evaluation can be performed?
 - (4) Why is Constructivism invoked in child education?
- (b) Answer each of the following questions within 300 words:
 - (1) Which aspects of the child are evaluated in this kind of evaluation?
 - (2) Which aspects are emphasized in CCE?
 - (3) Write about three objectives of this evaluation.
 - (4) Discuss the nature of CCE.
- (c) Answer each of the following questions within 500 words:
 - (1) Why is CCE needed?
 - (2) Write about the objectives of CCE.
 - (3) Discuss the two methods of CCE.
 - (4) Write about the characteristics of CCE.

2.7 Hints for check your Progress

Hint - 5

- (a) The state will be responsible for the care and child education of children upto six years of age.
- (b) The total, comprehensive development of the learner is measured.
- (c) To help develop cognitive, psycho-motor and sensory skills.

Hint - 6

- (a) Total, comprehensive development.
- (b) Teaching materials, toys, etc. for children.
- (c) The teacher will create learning opportunities and help the learner achieve meaningful learning.

Unit 3 □ **CCE in Pre-primary Education**

Structure

- 3.1 Introduction
- 3.2 Objectives
- 3.3 Scholastic Evaluation
- 3.4 Co-scholastic Evaluation
- 3.5 Formative Evaluation
- 3.6 Summative Evaluation
- 3.7 Summary
- 3.8 Exercise
- 3.9 Answers for Check Your Progress

3.1 Introduction

We have discussed continuous and comprehensive evaluation (CCE) in the preceding chapter. We have learnt what CCE is all about, why it is needed, when it should be carried out, its nature and scope. We have also discussed the objectives of evaluation of this kind at the pre-primary stage.

In this unit we will deal with the various methods of carrying out CCE which are Scholastic Evaluation, Co-scholastic Evaluation, Formative Evaluation and Summative Evaluation.

3.2 Objectives

After studying this unit, you will be able to know, understand and apply the following:

• What is Scholastic Evaluation and why is it needed?

- What is Co-scholastic Evaluation and why is it needed?
- What is need of Formative and Summative Evaluations and how are these carried out?

3.3 Scholastic Evaluation

Scholastic Evaluation and Co-scholastic Evaluation figure among the different methods of evaluation. It is important to be familiar with scholastic evaluation though its applications are few in Pre-primary evaluation because both the scholastic and co-scholastic modes of evaluation are needed to ensure that evaluation is indeed comprehensive and not one-sided. The objectives of scholastic evaluation include the manifestation through expected behaviour pattern of the learner's knowledge and conception of different subjects and their ability to apply the same in unfamiliar areas.

The objectives of scholastic evaluation are as follows:

- Changes in expected behaviour in the learner's knowledge, conception, application, evaluation and analysis and the ability to apply the same in new areas;
- Improve the teaching-learning methods;
- Evaluation will have to be Formative and Summative.

Later we will be looking at these methods in more detail.

Scholastic evaluation can again be divided into two groups:

Group A Group B

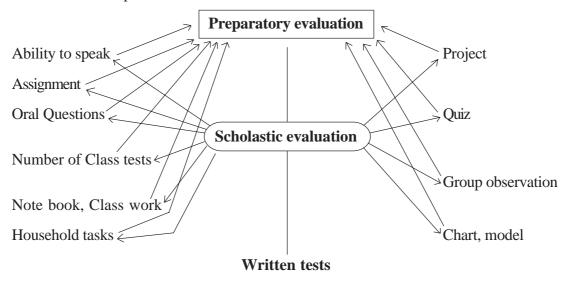
Language Fine arts

Mathematics Crafts/Work education

Pure Science Health education

Social Science Computer education

The different parts of scholastic evaluation can be divided as follows:



Scholastic evaluation methods can be divided into two groups : 1) Preparatory evaluation and 2) Summative evaluation. The tools and techniques employed in these evaluations are as follows :

Scholastic Evaluation

Summative evaluation

Preparatory evaluation

(time not fixed)		(written tests, time-bound tests)
Tools	Techniques	 Objective questions
• Questions	• Examination/test	• Very short questions
Observation	 Assignments 	Short questions
• Interview schedule	 Quiz & competition 	• Essay type questions
Checklist	Project	
Rating scale	Debate	
 Anecdotal record 	Recitation	
 Data analysis 	 Group discussion 	
Test and inventory	 Club activities 	
 Portfolio analysis 	 Practical test 	
	Research	

Now we will briefly discuss these tools and techniques, their advantages and disadvantages.

A. Questions:

The most frequently used tool of measurement is questions. We can find out about a child's knowledge, thoughts, imagination, feelings, sensibilities, etc. by asking different kinds of questions, A good cluster of questions has quite a few merits:

- i) Questions will be objective—in other words the object of framing the questions has to be determined in the very beginning and the cluster of questions will be based on it.
 - ii) Direction—Right direction is essential.
 - iii) Subject matter—Questions will be based on the subject.

Proper language, evaluation method, directions for answer, etc. are also essential.

A variety of questions will be used, involving

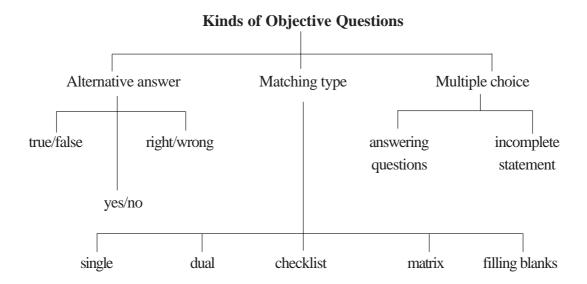
- a) Remembering
- b) Understanding
- c) Applying
- d) Analysing
- e) Evaluation
- f) Creating

Different Questions:

Based on the number of words and the nature of answers, questions can be divided into the following groups :

i) very short answers (objective), 2) very short answers, iii) short answers and iv) essay type questions.

These questions may again be divided in many ways into numerous groups. Here we will briefly discuss the objective type of questions only.



B. Observation:

A variety of data/information about the child can be collected both inside and outside the school and also inside and outside the classroom. Outside the classroom the child's behaviour, interaction with others, feelings, conversations, etc. may also yield information. Data collection can also be carried out on the basis of systematic observation.

Advantages of observation:

Collection of data based on observation has a number of advantages:

- a) The different aspects of the development of the child's personality can be identified and marked.
 - b) The child can be marked singly or collectively in a group.
- c) Identifying and marking can be done at different times spread over a sequence of periods.
 - d) The child's progress can be marked and evaluated within stipulated time.
- e) The child's curiosity, propensity, etc. can be measured for a specific period of time through observation at different points of time.

Limitations of Observation:

Observation has certain limitations or defects which, in spite of its notable advantages, somewhat vitiate the accuracy of the conclusions arrived at. The limitations are as follows:

- a) Conclusions are arrived at on the basis of one or two observations only;
- b) Sufficient number of techniques may not be known;
- c) Reliability and objectivity of observation methods open to question;
- d) Results of observation carried out in a certain situation may not be valid in another situation;
 - e) The method of analysing results may not be the right one.

As a tool or technique observation is used in different areas such as debate, speech, group activity, practical work, etc. The limitations can be considerably minimised by using a checklist or chart prepared beforehand. The application of observation in certain specific areas is shown below:

(i) **Debating :** The following chart can be used to measure a learner's proficiency in debates :

Serial no.	Description of merits		Evaluation			
		1	2	3	4	5
1.	Knowledge of subject					
2.	Ability to present arguments					
3.	Swiftness, pronunciation and style of speaking					
4.	Ability to refute opponent's views					
5.	Ability to accept criticism					
6.	Tolerance of opposition					
7.	Body language while arguing					

(ii) Group discussion

The following aspects should be observed:

Serial	Description of merits	Evaluation				
no.						
		1	2	3	4	5
1.	Contribution to discussion					
2.	Knowledge of subject					
3.	Ability to involve others in the					
	discussion					
4.	Ability to lead					
5.	Ability to take criticism					
6.	Application of creativity					
7.	Ability to listen to others, etc.					

(c) Test/Examination & Inventory:

Tests/examinations can be divided into two categories: written and oral. Oral tests are more suitable for little children. It takes more time since a single child can be tested at a time; but oral test gives the examiner an opportunity to build up rapport with the examinee and conduct the test on this basis. Oral test also comes in handy when learners have difficulties in taking written tests.

Tests presuppose meticulous planning because one needs to take into account the necessity, importance and toughness, etc. of the questions to be asked. Questions have to be arranged in order of toughness. Clear and written instructions about possible answers to each question, marks to be awarded and how to present the questions have to be provided with questions.

In order to uphold the objective nature of this method, answers have to be recorded. Grades or marks are to be awarded after comparing the answer given with the model answer. A brief note should be attached to the recorded answers so that when these question would be used next, the method of answering the questions would remain the same.

(d) Checklist:

It is possible to measure the child's progress in different areas by using a checklist which will present the measurable aspects in writing and the teacher will tick 'yes' or 'no' in each case. For example, on a 'Life style' checklist each learner has to be measured separately, individually in different areas indicated in the checklist.

Of course one can collect data first and tick the answers on the checklist later. Hence checklists can be used for collecting and recording primary data.

(e) Rating scale:

It is used as a technique of continuous measurement. The examiner will prepare a continuous scale ranging from best to bad or poor for measurement purposes and the same rating scale will be used differently for each learner.

(f) Anecdotal Record:

The term 'anecdotal' derives from 'anecdote' which means a short entertaining story about a real incident or person. Using this record we can observe a learner's behavior. The important incidents in the learner's life are recorded and consequently a great deal can be learnt about the learner's behaviour, thinking, skills and different aspects of his/her personality.

But it is not enough to record one or two incidents; it may not reveal all the aspects of the child. The teacher will record all incidents that take place and add comments.

Let us give an example:

A Day in the class:

I entered the class and the kids were pleased. They stood up and welcomed me. I saw that they were in no mood for lessons. I asked them to form small groups and play. And they were playing in earnest—running, leaping and shouting. Suddenly I discovered that one of the kids, Sebanti was not playing. Instead she was seated in her place, painting a picture in her drawing book.

I was curious and asked her, "Hello, you aren't playing. Why?" Sebanti was scared and stood up, saying nothing at first. Then she said, "I don't like to play. I'm very fond of painting pictures."

Teacher's Comment:

Sebanti is intelligent, quiet, obedient. She does not want to play or run around. Nor is she overly fond of mixing with others. She has the makings of a painter. Sebanti is imaginative, has painted naturescapes; she is fond of nature.

How many anecdotes? It depends on the time available. Certain things, however, have to be borne in mind while preparing this record :

- Anecdotal record is not to be thought of as an alternative to other kinds of data or portfolios.
 - The teacher should not mix up subject comments and objective remarks.
- Any special/exceptional, unusual behaviour whether taking place inside or outside the class or elsewhere—has to be recorded.
 - Good, bad or average—a child's behaviour must be recorded.
 - All the comments have to be compiled and analysed.
 - All this data is very confidential and must be kept as such.

Example of anecdotal record:	
Name of school:	
Learner's name:	Class:
Observer:	Time, date:
Narration:	
Observer's comments :	

Use/Application of Anecdotal Records:

Anecdotal records are used in a number of important areas. Some of the uses are mentioned below:

- 1) Information can be gathered about specific behavioural traits of a person;
- 2) Information about a child's thinking and behaviour in different areas can be gathered;
- 3) Incidents happening continually can be recorded;
- 4) These records can be used in measuring the child's abilities;

- 5) These records will come in handy during the child's transition from the preprimary to the primary stage or from one school to another;
- 6) A new teacher will find in these records all the information he/she needs about their students:
- 7) Doctors, too, often find such information useful;
- 8) Anecdotal records shed light on the learner's group behaviour.

(g) Portfolio:

A portfolio contains information which spans a few days or a number of days in a child's life. The best incidents and activities are recorded in the portfolio.

Advantages of portfolio

Portfolio offers many advantages some of which are as follows:

- i) Portfolio sheds light on the rate of development and growth of a child's skills;
- ii) Portfolio shows the extent of the child's learning and progress;
- iii) Portfolio reveals whether a child can play an active role in their own learning and measurement process.

Problems of Portfolio:

- i) Owring to specific reasons, certain specific data/details are included in portfolio;
- ii) Information about problematic incidents/tasks isn't collected, because it is not convenient for the teacher in running the portfolio;
- iii) Another teacher may not be able to explain such incidents in the right way.

Improving Portfolio:

- The child must be encouraged to help decide which information should figure in the portfolio and the child must be asked to explain the information recorded.
- To continuously improve the portfolio and include new information in it.
- To exercise caution in selecting and adding information to the portfolio.
- Each piece of information is to be assigned a number and it should be made clear what areas in the child's life the information relates to.

What is to be included in a portfolio:

- Photo—Photos of the child taken at different times and during the performance of different tasks—help illustrate the emotional, social and mental states of the child.
- 2) Drawings, paintings, etc.—shed light on the child's curiosity about the arts, skills, thought process, propensity, etc.
- 3) Audio & video—Certain special moments, situations should be audio and videorecorded.
- 4) Own measurement—Information about the child's own explanation and assessment. For example, after a session of play and games the child should be asked what in his/her opinion should be done to enable them to play letter.
- 5) Measurement by classmates—Data of this kind is very useful in considering group/collective behaviour. It reveals classmates' opinions about the child as well as the child's social life and different skills.
- 6) Measurement by parents and/or guardians—is important in continuous evaluation and yields enough information about the child's activities at home and in the neighbourhood.

(h) Assignment:

Assignments are used for a variety of purposes, such as testing the extent of the child's progress on completion of certain lessons, testing the development of the child's ideas through different activities.

Advantages:

- Assignment reveals the child's own newly developed thoughts, curiosity about new ideas, keeness to collect information, etc.
- Assignment helps the child understand why different kinds of data are collected.
- Assignment helps the child understand how different events taking place inside and outside the school are interrelated.

Caution for teachers:

Teacher, too, should be careful while putting together assignments.

- Often it is seen that a teacher produces assignments without having done enough homework in the first place.
- Assignments given must be of such a nature that children can perform them by themselves.
- Assignment can't be used as the only method of measurement.

Instruction for use:

- In depth analysis, discussion and review are needed.
- Creativity among learners must be encouraged.
- Learner must be encouraged to range and explore beyond text books.
- Group learning will have to be promoted.

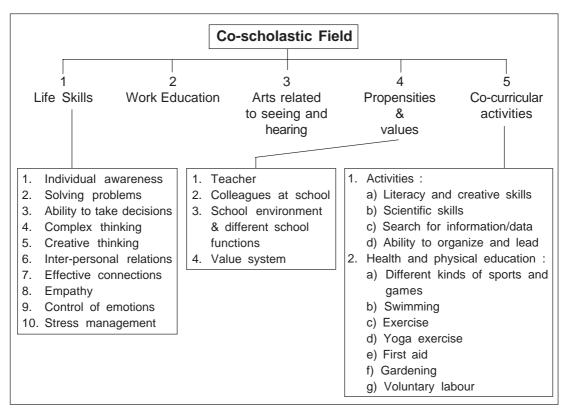
This apart, debates and competitions can also be organised as useful forums.

(Check your Progress-1:
	Instructions: (a) Write your answers in the space provided.
	(b) Compare your answers with those given at the end of this unit.
(i)	Write about the two objectives of scholastic evaluation.
(ii)	Write about any two techniques of formative evaluation.

3.4 Co-scholastic Education

A learner's progress in learning and teaching cannot be measured only through the measurement of the learner's acquired knowledge of certain curricular subjects. Alongside measurement of co-scholastic activities/ subjects is also needed. But unfortunately, many teachers often do not attach enough importance to this or simply neglect it. Consequently evaluation which is supposed to be holistic fails to be holistic.

Different techniques have to be adopted for holistic evaluation because a variety of techniques is called for in assessing the standards of curricular and co-curricular learning. In the first place it is important to identify the areas which need attention in co-scholastic learning and select proper techniques. Let us now look at the areas in which co-scholartic evaluation is important.



The subjects mentioned above are included in co-scholastic activities. But the introduction and teaching of a subject will depend on the class and the child's age.

Lessons in life style should begin in childhood though careful consideration must be given to introducing different life style lessons at proper stages. The same thing can be said about propensities and values. Thus scholastic and co-seholastic activities should go hand in hand.

Cl	neck your	Progress-2:
	Instruction:	(a) Write your answers in the space provided.
		(b) Compare your answers with those given at the end of this unit.
(i)	What is co-so	cholastic Evaluation?
(ii)	Mention any	two of the topics under life skills—

Evaluation of Co-scholastic skills:

Learning results in behavioural changes which may or may not be manifest. Let's take an example. Whether or not a child can perform a particular task becomes clear when we see him/her do a variety of things. In this way we can also find out if the child can recite a poem. But doing different things or performing a particular task may not reveal how much he/she likes a particular subject. If a teacher asks a child—'How do you like this poem?', perhaps it won't be easy to get the right answer, because answers such as 'good' 'very good', 'not so good' do not indicate the correct mentality.

We must not forget that man is not a robot and this is much more true of a child. A child's mind is like a flowing stream—ever changing. Hence we need authentic evidence and more authentic evidence to arrive at a conclusion and in order to produce authentic evidence we must go on collecting data/information. In his/her daily life a child is pleased

one moment and angry or sullen the next. If the child continues to be angry or sulking, we can conclude that the child is cross. If on the other hand the child is seen to be polite and well mannered most of the time, it can be said that 'the child is habitually polite'.

However, it is also to be borne in mind that while the teacher evaluates, elements of his/her personal opinions/views may find their way into the evaluation. Hence, the results obtained may contain defects/errors.

Steps in the evaluation of co-scholastic skills—

- 1) Identification of qualities/characteristics to be measured;
- 2) To lay down skill measurement parameters and fix the index;
- 3) To collect data/information about behaviour or index through observation and other techniques;
- 4) To write down the information and evidences;
- 5) To analyse the same;
- 6) To explain the same and award grades.

Thus it is possible to carry out evaluation in co-scholastic areas on the basis of results obtained through external analysis.

Grades can be awarded for skills or behaviour on the basis of results obtained. Measurement of co-scholastic areas will consist of four stages :

- i) To ascertain the area of the index of each external behaviour;
- ii) To prepare a plan of measurement/assessment;
- iii) To select techniques and tests for finding out information and evidence;
- iv) To arrange for data preservation, data analysis and award of certificates, etc.

Now we will discuss one of co-scholastic areas in some detail.

1. Life skills

Life skills imply those skills which enable one to co-exist in and negotiate and tide over different hostile situations through behavioural change. These skills helf develop physical, mental and emotional potential.

For learners the manifestation and development of life skills is very important because by practising these skills they can develop their own social qualities.

Life skills can be categorized much more widely. But only limited categorization is used in the case of children and we have already discussed the list.

Inventories are available for the measurement of all the skills mentioned in the list above. A number of these skills may again be manifested in the child's behaviour. We will now discuss three methods which also help us measure the objectivity and reliability of the evaluation process.

(1) Day to day observation, (2) Rating per term and (3) Testing annually.

(1) Day to day observation

Everyday the teacher will keep an eye on the child. He will record in his diary any special occurrence observed or noticed by him including details such as time, source of the incident, etc. as well as consequences of the occurrence, if possible. It had better be remembered all along that it is no routine job and that an incident can take place at any time.

Let's take some examples:

- Bijit shares his tiffin with others;
- Robin wolfs down his tiffin quickly and tries to get a mouthful from others, too;
- Though she did not get a prize at any function, she has all along helped me with a smile on her face;
- Jaya has been to her ailing friend's place to see her and told her all about the class lessons and the home task;
- Benu didn't agree with me and argued, but never got worked up. On the other hand Sashi was cross with Benu because Benu argued with me;
- Rohan connected the computer to LCD and it was easy for me to use it in the class.

All this information has to be graded on a 5-point scale in which 5 is the highest grade and 1 or less the lowest which implies failure. In the examples quoted above, Benu may be awarded 5 but Sashi is unlikely to score anything more than 2 or 1.

2) Rating per term:

Rating can be done in two ways. You can award points on a five-point scale such as 5 (surely the best), 4 (very good), 3 (good), 2 (not good), 1 (very bad).

Once all the skills have thus been measured, the points awarded can be converted into grade points in the following manner:

Grade	Grade point
A	4.1 – 5.0
В	3.1 – 4.0
С	2.1 – 3.0
D	1.1 – 2.0
Е	0 – 1.0

Let us illustrate it with an example. Let's suppose that total marks for all the life skills are 300. Urvashi has been awarded 225. So, how much has Urvashi scored on a five-point scale?

 $\frac{225}{300} \times 5 = 3.75$ which is in the range of Grade B because the range is 3.1-4.0. Thus Urvashi has got Grade B.

Let us take another example. Co-curricular Activities constitute an important segment of the co-scholastic field. Co-Curricular Activities include :

- i) Literature and literary skills
- ii) Science and scientific skills
- iii) Information and communication related topies
- iv) Organisation and ability to lead, etc.

Suppose the fourth skill is to be evaluated. If the learner happens to be a member of a school club (if the school has one) or a club in the neighbourhood or performs certain activities in his/her locality, those activities will be observed and graded. The following indexes may be used for measurement:

• Organisation and ability to lead:

Serial	Index	Evaluation				
no.						
		1	2	3	4	5
1.	Learner organises functions and helps in many ways.					
2.	Has the necessary skills to work in a group.					
3.	Can form a group within a very short time.					
4.	Can actively participate in different organisations inside and outside the school. For example, takes an active part in the environment club, health club, etc. for the school.					
5.	Can represent his/her class, school, locality or district in a function or event.					

iii) Testing annually:

The kinds of evaluations already discussed evaluate a certain skill, that is to say a single skill. But half yearly or yearly (annual) examinations are held to evaluate all the skills simultaneously. In these examinations standardised question papers or tests are used and grade points or marks are awarded which are then added to grades awarded in other evaluations.

Cl	neck	your	Progress-3:
	Instru	actions:	(a) Write your answers in the space provided.
			(b) Compare your answers with those given at the end of this unit.
(i)	Wha	t are Life	e skills?
	•••••		
	•••••		
	•••••		
(ii)	Roha	ın has so	cored 3.5 on a five point grade scale. What is his Grade?
		•••••	
		•••••	
		•••••	

3.5 Formative Evaluation

Formative evaluation is a technique employed by teachers in carrying out continuous evaluation of learners which demands a congenial environment for learners absolutely free from all external pressure.

Here the teacher will continuously help the learner who will, for his part, take his learning further ahead. Formative evaluation will take place both inside and outside the class. When she teaches in the class, the teacher divides the lesson into smaller units and also plans how much she will teach and how. And after each lesson she gauges the learner's progress, finds out where the learner is lagging behind and employs a variety of techniques to enable the learner to forge ahead. All this is part of formative evaluation.

A number of experts have attached different degrees of importance to Formative Evaluation as a technique of Evaluation. Some of their views are quoted below:

- Black and William (1999) "... often means no more than the assessment is carried out frequently and is planned at the same time as teaching."
- Hurlock (1998) "... provides feedback which leads to students recognising the (learning) gap and closing it. ... it is forward working ..."
- Tunstall and Gipps (1996), "... is used essentially to get a feedback into the teaching and learning process."

Characteristies of Formative Evaluation:

- Evaluation of this kind traces causes of a problem and offers solutions;
- Provides correct feedback;
- Helps learners take an active part in their own learning;
- The teacher can plan teaching on the basis of the results of evaluation;
- The learner can sense the progress in his/her own learning and can also understand how more progress can be achieved.
- What she/he learns is prepared on the basis of knowledge and skills already acquired.
- Helps the learner help him/herself as well as classmates.

Certain indexes are used in this kind of evaluation; of these five are more important. These indexes are inherent in the Outline of National Curriculum (2005), Right to Education Act (2009) and the school of Constructivism. These five indexes are:

- Participation
- Questioning and Experimentation
- Interpretation and Application
- Empathy and Cooperation
- Aesthetic and Creative Expression

The West Bengal Board of Secondary Education uses these five indexes in formative evaluation on a four-point scale of assessment. Each index with its grade-range is given below :

Index-1
Participation

Serial	Stages of Index	Grades			
no.					
		1	2	3	4
1.	Has actively participated				
2.	Has leadership qualities				
3.	Has actively taken part through interaction				
4.	Has interacted but not often participated				
5.	Not keen to participate				

Index-2
Questioning and Experimentation

Serial no.	Stages of Index	Grades			
		1	2	3	4
1.	Able to ask learning friendly questions and keen on experimentation				
2.	Able to ask learning friendly questions but not keen on experimentation				
3.	Doesn't ask learning friendly questions but keen on experimentation				
4.	Asks questions which however, do not help learning and experimentation				

Index-3
Interpretation and Application

Serial no.	Stages of Index	Grades			
		1	2	3	4
1.	Capable of interpretation and application by using concept-related examples				
2.	Capable of interpretating with concept-related examples but incapable of application				
3.	Capable of partial interpretation but unable to apply				
4.	Only mugged up the relevant concepts				

Index-4
Empathy and Cooperation

Serial no.	Stages of Index	Grades				
		1	2	3	4	
1.	Equally empathetic to both familiar and unfamiliar persons					
2.	Actively empathetic to familiar persons but only sympathetic to the unfamiliar					
3.	Empathetic to familiar persons					
4.	No empathy for familiar and unfamiliar persons					

Index-5
Aesthetic and Creative Expression

Serial	Stages of Index	Grades			
no.					
		1	2	3	4
1.	Aesthetic and creative (inside and outside the class)				
2.	Aesthetic and creative (inside the class)				
3.	Keen on aesthetic and creative activities				
4.	Aesthetic, but not keen on creative activities				

Let us illustrate with an example how grades or marks are awarded. Suppose the five indexes above carry $25 \times 5 = 125$ marks. Rebecca has scored 108 or 86.4%. The grading is as follows:

$$A = 75 - 100\%$$

$$B = 50 - 74\%$$

$$C = 25 - 49\%$$

D = less than 25%

Thus Rebecca has got 'A' grade (86,4%).

social commitment, (12) Different kinds of functions, etc.

It has already been made clear that Formative Evaluation will take place both inside and outside the class. Or in other words it will connect the outside and inside worlds. The following teachniques can be used to implement the instructions and indexes given:

(1) Quiz, (2) Debate, (3) Project, (4) Extempore speech, (5) Group discussion, (6) Experiments, (7) Different School functions and events, (8) Nature study and apperestation, (9) Cleanliness campaign, (10) Wall magazine, (11) Different activities of

Summative Evaluation:

A teacher carries out two kinds of evaluation—during teaching (mid-term) and at the end of teaching (term-end). The evaluation carried out at the end of teaching to assess the extent to which the objectives of teaching have been achieved, is called Summative Evaluation, which can be carried out every month, at the end of six months or annually. Let us now look at the opinions of experts on summative evaluation—

- Angilo & Cross (1993)—"Good summative assessment—tests and other graded evaluations must be demonstrably reliable, valid and free of bias".
- Black and William (1999)—"... assessment (that) has increasingly been used to sum up learning."
- Hurlock (1998)—"... looks at past achievements ... adds procedures or tests to existing work ... involves only making and feedback grades to students ... is separated from teaching ... is carried out at intervals when achievement has to be summarised and reported."

This kind of evaluation is done through written or term-end examination in which objective, short-answer and long-answer questions are used. But the teacher, while setting questions, must bear in mind that the questions should be framed in such a way that they do not encourage cramming and rote-learning. On the other hand, the questions should promote and foster manifestations of inquisitiveness and creativity on the part of the learner and enable them to apply whatever they learn.

Characteristics of Summative Evaluation:

Summative Evaluation may be of two kinds—external evaluation and internal evaluation both of which have certain characteristies. However, the results of such evaluation may not be always authentic and reliable. If excessive stress is laid on examination, knowledge of the subjects taught and skills receive undue emphasis and the impression may gradually grow in the learner's mind that learning and doing well in examinations are not the same thing. Consequently learners may end up harbouring wrong notions of the kind labelled 'learn and forget.' This apart, an unhealthy competition focussed exclusively on examination

results grows among the learners who consequently tend to suffer from peer pressure and anxiety, too. Be that as it may, a few characteristic are mentioned below:

- Learning is measured;
- It stresses descriptive analysis;
- Such evaluation is carried out at the end of a unit or annually and the learner's learning in its totality is assessed;
- Local influences (school etc.) are important;
- The oldest technique existing;
- Such evaluation does not always possess accuracy and reliability.

3.7 Summing up

In this unit we have discussed Scholastic and Co-Scholastic Evaluation. We have also discussed at some length the topics, tools and techniques of Scholastic Evaluation. The tools include questionnaire, observation, debate, examination, inventory, cheeklist, rating scale, anecdotal record, portfolio, etc.

Co-Scholastic Evaluation has also been discussed in some detail. In this kind of evaluation the most important thing is Life Skills. Formative Evaluation and Summative Evaluation have also been discussed.

3.8 Exercise

- A) Give very short answers:
 - (i) Into how many groups is Scholastic Evaluation divided?
 - (ii) Into how many categories can written test be divided? Name them.

- (iii) How many types of questions are possible?
- (iv) Write about two limitations of observation.

B) Give short answers:

- (i) What are the tools of Scholastic Evaluation?
- (ii) What are the advantages of Observation?
- (iii) Prepare a chart to measure proficiency in debate.

C) Essay type questions:

- (i) Explain Anecdotal Record with examples.
- (ii) Explain the different parts of a Portfolio.
- (iii) What are the different areas of Co-scholastic Evaluation?

3.9 Answers for Check Your Progress

- 1. (i) To improve the teaching-learning process and formative and summative evaluation.
 - (ii) Examination and Project.
- **2.** (i) All that is needed apart from curricular subjects.
 - (ii) Individual awareness and resolution of problems.
- **3.** (i) Life skills imply those skills which enable one to coexist in and negotiate and tide over a variety of hostile situations through behavioural change.
 - (ii) B.

Unit 4 ☐ Tools and Techniques of CCE in Preprimary Education

Structure

- 4.1 Introduction
- 4.2 Objectives
- 4.3 Methods of Assessment
- 4.4 Tools of Assessment
- 4.5 Techniques of Assessment
- 4.6 Summary
- 4.7 Exercise

4.1 Introduction

In the previous chapter or unit we discussed different methods of primary education such as Scholastic evalution, Formative evalution, Summative evaluation, etc. In this unit we will discuss Tools and Techniques employed in Continuous and Comprehensive Evaluation (CCE). In this unit you will read about the various methods of CCE, the tools used for assessment and how the results are measured once assessment has been carried out using these tools.

In a word, CCE unveils a child's development and growth in all directions, the quantitative and qualitative changes undergone and the areas to which the child should pay special attention. It also suggests how much attention is to be paid and how. Consequently these results are very important for parents and teachers as well. Hence the teachers and schools, too, should be conversant with these things. Unless there is sufficient awareness of what techniques and tools are to be used, how evaluation is to be performed and how the results are to be brought to view, the very purpose and initiative of evaluation may be defeated. On the other hand, children may suffer in the absence of correct and accurate assessment.

4.2 Objectives

Having studied this unit, the learner will be able to understand, learn and apply—

- The different methods of CCE;
- The description of the different tools of assessment;
- The different techniques of assessment in which these tools are used.

4.3 Methods of Assessment

A curriculum contains the complete plan of learning-teaching, that is to say, list of reading materials, subjects, methods, methods of assessment, etc. It will include the complete list of the knowledge, skills, etc. of the learners at a certain stage. This assessment or evaluation estimates not only the learner's progress in learning and his/her improvement, but also the teacher's skills and the necessity and success of the teaching methods. Hence it is to be regarded as an important ingredient or element of the curriculum. We use assessment for various reasons:

- (a) We can identify a learner's personal and special needs according to the learner's skills and weakness;
- (b) Methods of teacher-training can be planned more beautifully, effectively;
- (c) The teaching-learning process can be made more effective with a variety of aids;
- (d) To assess the nature and extent of the changes and improvement that have taken place in the areas of different subjects;
- (e) To help the child understand or know the fields in which he/she is weak and needs special help;
- (f) To help the teacher understand what the child likes and know the days which the child does not like;

- (g) To promote self-confidence in the child;
- (h) It is possible to assess how far the goals of the curriculum and the objectives of the reading list have been achieved;
- (i) The child, his/her parents, teacher and school can be told how far the child has made headway in learning;
- (j) To help and encourage the child so that they can understand their own needs;
- (k) To help every child in learning and improving and involve the parents and other teachers in the same task.

The method of assessment or measurement is cyclic in that the results of measurement will be used in future to enhance progress and improvement.

Its different steps are as follows:

- (1) To collect information and evidence by different methods;
- (2) To organise the information collected into portfolios;
- (3) To use the information contained in the portfolios.

If we believe that a child's learning takes place in various ways inside and outside the school, we will use a variety of methods to collect information because the methods of collecting information inside the school may not be the same as those used to collect information outside the school. Hence it is necessary to know the methods of analysis of information.

Sources of information: First step:

We know that it is the teacher who collects information about children in the school. Again measurement can reveal the extent of a child's learning and progress achieved. Measurement being child-centric, the child is an important part of it. Hence the teacher will strive to find out about the child's needs, experience of fulfilment and the ways to fulfil them. How can it be done? The teacher should approach the child and ask what he/she likes, what he/she considers to be their best work and why and thus gain an idea of the child's learning and development from the answers to the questions.

The other sources of information are:

- Parents
- Child's friends, classmates, etc.
- Other teachers
- Other people of the child's society, etc.

Now we revert to our original topic—evaluation methods. Four evaluation methods can be used :

- (a) Individual Measurement method—This method is used to measure something done or learnt by the child on his own and all by himself/herself.
- (b) Group Measurement Method—This method is used to measure the different aspects of growth, development and learning when children work together and assess their social development, sense of values, behaviour, etc.
- (c) Self assessment—In this method the child will himself/herself measure their own knowledge, skills, curiosity, propensities, etc. But different tools will have to be used in each case.
- (d) Peer assessment—In this method one child will measure or assess another child or all the children of an entire group. Different tools are used in this case, too.

Usually in schools the teacher is the linchpin of all measurement/assessment related activities and does all that needs to be done and himself/herself devises the methods to be used. The methods used by teachers include written tests, oral tests, practical tests, painting and similar hands-on jobs or tasks, conversation with others, participation in sports, etc. For quick assessment, a teacher often chooses a small class to conduct a test. Normally tests of this kind are held after completing a chapter, over the weekend or every month. The questions should be of such a nature as to encourage the child not to cram and write answers which would reflect their ability, ideas, creativity, etc. In other words, the questions would serve to encourage not merely memorisation and learning by rote but rather the development of the child's thinking, ability to analyse, etc. Thus the questions would serve as an instrument of assessing a child's different qualities.

However, mostly written tests are used in schools for this purpose, though some schools employ a variety of tools. Unfortunately teachers, oftener than not, use these tools uncomprehendingly. As a result the results thus obtained do not reflect reality.

Another word of caution—no single tool can assess all the aspects of a child's development and growth. When a teacher does his job, she/he is sure to notice that by observing the child from a distance, listening to their conversations, talking to their friends about the child, talking to their parents and so on, they can get hold of such information as are not reflected in written tests. Written tests reveal only a few facts, but continous comprehensive development assesses all the aspects of a child's development and ensures that—

- (1) different aspects of a variety of things and all the aspects of development and the degree of learning are brought to light;
- (2) the child will be given freedom to find out the methods, subjects and areas in which they feel at ease;
- (3) each method is different; hence the aspects of learning dealt with in different methods are different. Taking all this into account the teacher will decide how the child's learning is taking place and the direction in which it is moving.

Thus the source of information is very critical in evaluation. And the source will help decide the teaching and measurement methods.

Organising information obtained into portfolis—second step:

Almost in all schools information relating to children is organized into portfolios by awarding marks or grades. But the most important thing is to select a method which best achieves this end. Now the best method is comprehension continuous evaluation (CCE). The following steps should be followed in this direction—

• The child must be very carefully observed and the results of observation recorded in a diary, notebook or register.

- To carry out instant assessment when the child is engaged in a task or has just finished it.
- This information will have to be recorded in detail in terms of quality and quantity. Significant new incidents will have to be carefully recorded, too.
- In this way a portfolio for the child will be compiled.
- The child should be spoken to to find out how he/she has done their work and why it was done the way it was done.
- In recording all this information the teacher should carefully note the changes the child is undergoing, the problems encountered, style of working and evidence of learning.
- While recording the information care must be taken to make sure that vagueness is replaced by clarity.

When he/she teaches in the class, the teacher surely notices a lot of things, but forgets all about them because he/she has not taken the trouble to record them and hence their evaluation does not reflect these things. On the other hand a number of teachers do record these observations in their diaries and use them as and when needed.

Using portfolios—third step:

Evaluation doesn't begin and end with the collection and recording of data or information which requires careful analysis. If errors creep into the assessment/measurement method, it is likely to have an adverse impact on the child. Hence the collected data should be used to decide how the child should be helped and ascertain the level of the child's learning.

Using this data the teacher also can find out if he/she is using the right teaching method, if the class is being managed the right way or whether the resources of the science of education are being used the right way or whether the learner is making progress in his/her learning.

We have already stated that five indexes can be used to assess or measure a child's progress. These indexes are extremely important and help evaluation and measurement/ assessment in a variety of ways. In data analysis these indexes can be used in the following ways:

- A child's learning in a given area can be continuously traced to see how the learning is taking place and to what extent.
- An easy specific yardstick for assessing the child's learning can be communicated to the parents and others.
- These indexes help direct the child's learning, make progress and organise portfolios.

Check You	ur Progress-1
Instructions:	(a) Write your answer in the space provided below.
	(b) Compare your answers with those given at the end of this unit.
1. Write abou	t two methods of assessment
2. Write abou	t any of the three steps relating to sources of information

4.4 Tools of Assessment

It is often difficult to define Tools and Techniques separately. Even so, there are differences between the two. Below we mention some of the more important tools used in CCE:

(a) Questions,

- (b) observation,
- (c) Test and Inventory,
- (d) Checklist,
- (e) Rating Scale,
- (f) Ancedotal Record,
- (g) Portfolio,
- (h) Document Analysis.

Now we will discuss a few tools.

(a) Questions:

Questions may be of two kinds—standardised and non-standardised. Standardised questions usually have certain basic qualities such as Validity, Reliability, Objectivity, Applicability, etc. A good question paper is likely to have certain qualities such as objectivity, applicability, instructions, content, use of language, degree of toughness, measurability, etc.

Size of questions: Depending on the content, questions may be of different sizes. But different kinds of questions may be needed to assess different qualities. A good question paper may contain questions of the following kinds:

(1) Remembering, (2) Understanding, (3) Applying, (4) Analysing, (5) Evaluating, (6) Creating, etc.

Types of questions: Depending on the answers required, questions may be divided into types such as: (1) Essay type questions, (2) Short answer questions, (3) Very short answer questions, (4) Objective questions. Each type again has its own characteristics.

(b) Observation:

Observation is one of the principal means of collecting information about children. The child can be observed and information can be collected when he/she is engaged in performing a task. It can also be planned beforehand following specific methods.

Advantages of observation : Observation gives us a number of advantages some of

which are mentioned below: ☐ We get to know and understand the different aspects of a child's personality, ☐ We can identify the different characteristics of the personality of a child both individually and as a member of a group, ☐ We can assess the different aspects of the child at different points of time, ☐ Through observation we can find out how a child's curiosity and propensities are shaping up over a considerable period of time, Disadvantages of observation as a tool of assessment: ☐ If we jump to a conclusion after only a couple of observations, we may not be able to arrive at the right conclusion. ☐ If an observer has no previous experience of observation, he/she may not know 'what' to observe and 'how'. ☐ It is imperative that the observer be objective in his/her observation. This apart, the mental state of the observer when he/she is engaged in observation also considerably influences the act of observation. Results of observations of the same kind concerning the same subject relating to a child may well vary according to place, time and environment. But often an observer uses the same results on different occasions.

Through observation a child's nature, conduct and behaviour and progress in learning can be assessed in a number of ways. Observation is used to assess progress in the application of different techniques such as debate, group activity, practical work, project-related work, sports and games, etc.

(c) Test and Inventory:

Tests may be of two kinds—oral and written. Again, the methods and techniques of oral test may be different from those of written test. Each supplements the other. Oral test shows whether a child is able to express his/her thoughts in their own language. On the other hand written test shows whether a child can express himself/herself in writing.

Being individual-centric, oral test is naturally time-consuming. However, if a child finds writing difficult to handle, oral test is a good alternative and certainly a good method for assessing a child's progress in pre-primary education.

The advantages of oral and written tests and inventory are as follows:

These help the learner take part in the assessment method;

A child's abilities to hear and speak can be tested;

The ability to speak fast and explain something correctly can be assessed;

The depth of a child's learning can be assessed through questions.

However, oral and written tests need careful planning and the questions should have objectivity, validity and authenticity.

(d) Checklist:

Test of this kind is needed in assessing a certain quality or skill. But this also calls for observation. After observation the results are carefully listed following a special method. The extent and range of a quality or characteristic is assessed over a stipulated period of time.

Advantages of Checklist

Some of these are mentioned below:

Checklist is easy and quick to use;

- It supplies information relating to a specific quality;
- It shows how and when a child has acquired it;
- It also shows whether the child uses a manifests this quality when in a group;

Precautions: Certain precautions should be taken which applying this test:

- A checklist supplies ordinary data about a specific quality;
- It does not show how that quality or behaviour can vary in different situations;
- It does not say much about content;
- Unless he/she has previous experience of applying this test, a teacher is not likely to find the preparation of such a test an easy task nor is it likely to yield correct data when applied.

(e) Rating Scale:

Like observation and checklist Rating Scale is also used to assess the different aspects of a child as well as his/her progress in a certain area.

Advantage	S:
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	Different kinds of progress are assessed on a specific scale;
	It is also used in assessing individuals and groups;
	It can be used in different situations and conditions;
	It helps ascertain the extent of a child's progress over a specific period of time;
	By using the rating scale we can find out about a child's progress in learning in different areas, types of learning, etc. over a long period of time.
Pre	ecautions in application :
	The teacher or instructor must have requisite experience;
	All that needs to be known must be correctly identified;
	Information or data obtained at a particular time cannot be used on all occasions.

(f) Ancedotal Record:

It is a method of recording past events, incidents. 'Ancedotal Record' is the method of recording the events occurring in a child's daily life complete with details such as day, date and time.

Such information yields dividends in future and shows how the child is making progress, where he/she is making slow progress or none at all, etc.

Advantages:

Information concerning different areas can be obtained from a single event. It shows what is happening in the social, intellectual and emotional areas of a child's life and how;

A child's strength and weakness are revealed;

It unveils a child's progress made over a long period of time.

Precautions of application:

It is not correct or right to assess a child's abilities on the basis of a single event;

Information/data is recorded under certain special conditions. But it is not proper to add comments immediately after recording the information;

A teacher records only what he/she considers to be significant and important.

But an ordinary incident may appear to be more inportant to others.

Example of Ancedotal Record			
Name of the school:			
Learner's name:	Class:	Age:	
Observer teacher:	Place:	Date :	
Description of event :			
Observer's comment:			
Signature			

Use of Ancedotal Record:

	Ancedotal Record is very important as far as CCE is concerned and some of its
app	lications are mentioned below:
	It gives a definite idea of an individual's personality;
	It explains or helps account for a child's different behaviours in different situations;
	It ensures continuous assessment;
	One can perform self-assessment on the basis of data obtained;
	Such data can be used for medical purposes;
	Teachers are encouraged to use such data.
(g)	Portfolio:
	It is a method of collecting information/data in various ways and recording the same. The daily tasks or events taking place at different times are recorded following a specific shod.
Ad	vantages:
Ad	vantages: Its advantages are as follows:
Ad¹	
	Its advantages are as follows:
	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period;
	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period; A learner can demonstrate his progress to others;
	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period; A learner can demonstrate his progress to others; A learner can actively participate in evaluation.
 	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period; A learner can demonstrate his progress to others; A learner can actively participate in evaluation.
 	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period; A learner can demonstrate his progress to others; A learner can actively participate in evaluation. Initations: The right reasons behind the use of data are not often comprehensible;
 	Its advantages are as follows: It shows the growth and development of a learner's skills over a long period; A learner can demonstrate his progress to others; A learner can actively participate in evaluation. Initations: The right reasons behind the use of data are not often comprehensible; It is not easy to use and explain an abundance of data.

	Data has to be continuously recorded. If necessary, old data may deleted;
	A child's previous condition is to be considered while incorporating data;
	Data should be numbered and recorded in order of importance to ensure easy access and use.
(h)	Document Analysis:
	This kind of tool is very important in research and is used in analysing data obtained
bef	Fore arriving at a conclusion. This tool can be used in essay type questions. In this case
	teacher analyses answerscripts, tries to locate the main parts and accordingly awards
	rks or grades.
(Check Your Progress-2
In.	structions: (a) Write your answers in the space provided below.
	(b) Compare your answers with those given at the end of this unit.
1.	Name the four tools of Assessment.
2.	Mention any two uses of Checklist.

Unit 5 ☐ **Environment**

Structure

- 5.1 Introduction
- 5.2 Objectives
- 5.3 Environment
 - **5.3.1** Meaning of Environment
 - 5.3.2 Characteristics of Environment
 - **5.3.3** Types of Environment
 - **5.3.4** Components of Environment
- 5.4 Relation between Man and Environment
- 5.5 Environmental Perception
- 5.6 Environment of Child
 - 5.6.1 Concept of Child
 - 5.6.2 Growth and Development
 - **5.6.3** Stages of Development
 - 5.6.4 Role of Heredity and Environment in the Development of Child
 - 5.6.5 Role of Environment on Biological Development of Child
 - 5.6.6 Role of Environment on Social and Cultural Development of Child
- 5.7 Summary
- 5.8 Exercise
- 5.9 Answer to 'check your progress'

5.1 Introduction

Every civilised and cultured man wants a healthy and peaceful society to live in. This can be possible if all members of our society will be good, and responsible for their duties, and quality education is to be provided to their children. Everyone will agree with this. But, in many cases, the experience of a child starts with inequality and deprivation. A child

experiences this in his/her family as a result of the ignorance of the parents. Then she/he faces the same unpalatable experience of deprivation also in the school. This happens due to the malevolence unhealthy attitude, and ignorance of teachers. Now, the condition of a young learner with double deprivation can be clearly deciphered. As a matter of fact the life of displeasure and embarrasment starts from the very beginning of his/her Career.

To protect the child from this double deprivation and embarrasment, both parents and teachers have big roles to play. They need to understand their duties scientifically and have to do it with enough kindness and love. For this, knowing the child is not enough, knowing his/her environment is also equally important.

5.2 Objectives

After reading this unit, you will be able to—

- Know different dimensions of environment
- Find out relationship between man and his environment
- Find out the elements of environment and their interrelation with growth and development

5.3 Environment

5.3.1 Meaning of Environment

Etymologically, environment is something 'near to', 'close to' or something that surrounds us. The original word 'environ' which is a french word, means 'near by place' or surroundings. The french verb 'environer' means 'to encircle' or 'to surround'.

From the above discussion, it can be concluded that environment is something that surrounds us, and the natural habitat where we live. So and the elements present within it are the ingredients of environment. Environment is not simply the integration of all these elements but interaction among them. In this context, we can quote the definition given by UNEP (United Nations Environment Programme) which says "Environment is that natural and biological process which evolves out of the mutual interaction among its elements".

Environmentalist Butkin and Kellar (1995) in their book 'Environment science' have defined environment as, "The synthesis of all those biotic and abiotic causes by which the life cycle of a living being—plant or animal—is affected in any given period of time."

Psychologist Woodworth opines—"Environment covers all the outside factors that have acted on the individual since he began life". This definition clearly considers environment as an active entity and psychology interprets environment in the same fashion. Modern psychology gives a radical definition about environment. It goes like this—Environment is the sum total of all the stimuli that have the capacity to stimulate men from birth to death.

According to the psychologists Doughlus and Holland, "The term Environment is used to describe in the agreegate, all the external forces, influences and conditions which affect the life, nature, behaviour and the growth, development and maturity of the organism." As per this definition, environment is an individual concern. Any element of environment may act as an active stimulus for an individual whereas for another person the same element is dormant.

From the above discussion, it can be said that environment is the blend of all those elements active in the surrounding since the conception of a baby. In education, the definition is more extensive in nature. Contextually speaking, environment is the synthesis of all those stimuli that surrounds a child by the effect of which it (the child) develops its all round personality and brings changes in its behaviour.

5.3.2 Characteristics of Environment

We all know that environment is an important aspect in the life of a child in particular, and of an individual, in general. To know a bit detail about environment, we need to know its features. The following are its features:

- (i) **Activeness:** The main characteristics of environment is that it is always active. Anything that activates or energises a child or even an individual is an element of environment.
- (ii) **Comprehensiveness:** From birth to death all elements which act upon the child come under environment. Even the remotest material, if starts influencing the child in any way becomes the part of environment.

- (iii) **Variability:** Environment is something which is in constant flux. Sometimes the rate of change is more and sometimes it is less. But in every moment, we experience change, the cause of which is either man or nature.
- (iv) **Mutual Interaction :** Not only the environment exerts influence upon the child, many a times the other way around is true. That means, the child as an element of environment also influences it. It modifies the environment according to its own need. This mutual interaction is called reciprocation.
- (v) **Developmental:** To maintain its existence, the child needs power and energy. The environment provides all these which are needed for its survival. Environment not only influences, but also shapes the child and its body, mind and emotion in such a way that it can have the right kind of behavioural change.

Cł	neck Your Progress-1:
	rection: Write your answers on the space given below. Match your answers with the swers given at the end of the unit.
1.	Give a suitable definition of environment.
2.	What is Mutual Interaction?
3.	Write two features of Environment.

5.3.3 Types of Environment

Different people have defined environment differently. The classification differs according to their perception of environment. Renowned geographer Alice Coleman has classified it on land use. Let's see the classification.

- (i) **Wild Environment :** The places which come under this are wild forests, polar region, equatorial region, high and dense mountain region, humanless coastal area, barren island etc.
- (ii) **Rural Fringe Environment :** Rural area near forest, villages near desert, oasis based habitat come under this category.
- (iii) **Rural Environment :** The villages of temporary agriculture, village of extensive agricultures, villages where people depend upon fish and wood for their sustenance, mines based area come under this category.
- (iv) **Urban Fringe Environment :** These include sub-urban areas and villages adjacent to cities and towns.
- (v) **Urban Environment :** Any industrial area, business area of large scale type and highly/densely populated cities and towns come under this category.

On the basis of its elements, environment can be divided into two types—natural environment and cultural environment.

- (a) **Natural Environment :** The natural situation available in a particular geographical place for human habitation is called natural environment. In it we find soil, water, air, climate, mountain, hill, forest, desert and living beings. So, natural environment has two main elements—living entity and non-living entity.
- (i) **Non-living Entity:** Those elements which help to maintain life and vitality among living being but have no life of their own are non-living entity.

There are two categories of non-living entity—one, natural non-living entity, the elements of which are of natural origin and man has no control over these; and the other is of man-made non-living entity, which is created, controlled and manipulated by human beings.

(ii) **Living Entity:** Any element in a natural environment that has spark of life in it, is a living entity. The congregation of all such elements is known as living natural environment. This is of two types—plants and animals. The plant kingdom constitutes

of various types of trees, shrubs, creepers etc. whereas various types of animal constitutes the animal kingdom.

(b) Cultural Environment: Cultural environment has been built up by taking man's whole life style into consideration. The main concept here is culture. Edward Taylor defines, "Culture is that complex whole which includes knowledge, belief, morals, law, custom and any other capabilities acquired by man as a member of society". Prof. Malinsky defines, "Culture is whatever essential in life—machines, psychology, social and industrial establishments." Educationist McEazee says, "Culture which is generally taken to denote education in its larger sense—the sense in which it is the end of life, rather than the preparation for life......it is the development of spiritual nature of man."

From the above definitions, it can be said that as far as social aspect is concerned, man's life style is culture. It is the complex congregation of different individuals and their dimensions of interactions. Among all these dimensions are—collective social knowledge, morality, faith, law and order, custom, mores, folklores and man's social habits and skills. Whatever man possesses or earns as a member of society is culture. This cultural environment is of two types—built environment and social environment. The first one denotes everything made by man like place of living, railways, fields, lands of agriculture, pond etc. And the second one is collective response to each other in a social setting. It happens when the cultural, economic, social and political aspects of human life interact in a particular place.

Except the natural and cultural environment discussed above, environmentalists, now are opining about two other kinds of environment—objective environment and subjective environment.

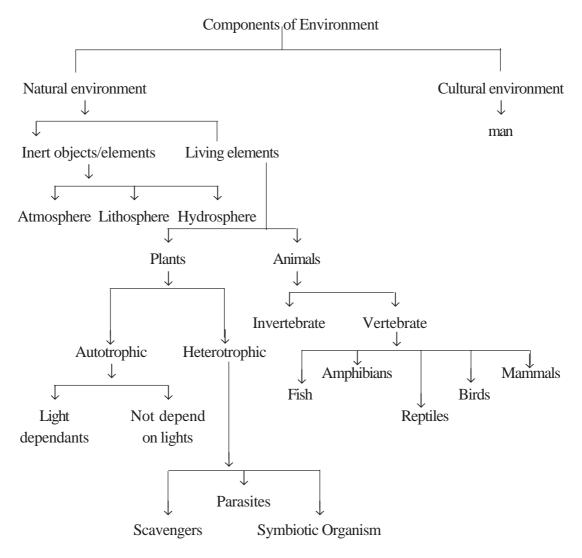
Objective Environment : The response observation and emotion of human beings of a given geographical place which reflects the place is called objective environment.

Subjective Environment: Whatever may be the objective reality, if the attitudinal and psychological make over differs and that is reflected in the environment, this is called subjective environment. For example—To some people the lonely desert climate is very good and attractive while to others it is that much dull and unattractive. To certain places, man develops a particular emotional bonding. Previously, Kashmir was thought up to be a heavenly place for man on earth and that automatically arose joyful sentiments even at the time of thinking. But now the same place has earned a bad reputation which man thinks

to be a terror-striken and, hellish place on earth. So, subjective environment depends upon man's perception and attitude of that place.

5.3.4 Components of Environment:

Previously it is said that environment is the synthesis of all the stimuli which have their impact or influence on a person in his/her whole life. All these stimuli in a particular environment are called components of an environment. These components are shown below:



5.4 Relation between Man and Environment

Here, environment means natural environment. Relation means the mutual interaction between man and his natural environment. Nature has its impact on man, his activity and dealings; man also through his activity influences nature or natural environment. In order to prove the relation between man and his natural environment, theories have been built up.

Some of the theories are : (1) Theocratic view, (2) Geocratic view, (3) Weocratic view, (4) Scientific Probabilism, (5) Neo-determinism.

- (1) **Theocratic view:** Since the dawn of civilisation, man has been a believer of God. In every ancient civilisation (Indus Valley, Egypt, Babylon & Greece) there was a strong belief of God and the whole world was considered to be a 'lila' of this almighty who used to govern it with certain basic laws and principles. These eternal laws help man to evolve and improve his 'chetana' through a righteous use of nature and its power. For man, nature is said to be a gift from God, and he should always try to maintain a symbiosis with it. For man's evolution is the nature. This teleological explanation is theorised as Theocratic view by Griffith Taylor. The propounder of this theory is Carl Ritur.
- (2) **Geocratic view:** According to this view, nature is the supreme reality and is independent of any extra-terrestrial power. The role of man is subordinate to nature. This theory tells—we find diversity and variety in man and his personal dealing with others, this happens due to the difference in nature or natural environment. We find difference in food habit, dressing style, habitat, livelyhood and social dealing. All these are due to difference in the natural environment they have. For this, in different part of the world, we find man with different livelyhood and activity. That means the natural environment of a place determines the way people will lead their life. The propounder of this theory is Alexander Faun Humbolt.
- (3) **Weocratic view:** The french geographer Pale Vidal Thya La Blaas and another french historian Lousian Favr are the propounder of this theory. According to Vidal, man is an essential part of nature, a creation of nature. Nature is just like a guide for man. The difference we perceive in the natural environment of different places and life style of men is the result of man-nature interaction.

According to historian Favr, nature creates both facilities and impediments for man and his community so that in his work and life there would be probabilities and opportunities, which, if used properly, would bring benefit to mankind. On the other hand, what man would do for him depends very much on the choices he makes and willpower he exercises. This choice of man depends upon his culture, artistic development, society and its attitude. The base here is the mutual cooperation between man and nature. Taylor names it 'Weocratic' because 'Weocratic' means 'ours'. Here, 'ours' means a joint stature of man and nature.

- (4) **Scientific Probabilism :** Geographer O.H.K. Spate establishes a statistical relationship between man and nature. Spate tells, man's activity may not affect natural environment, but the opposite is true. A particular type of environment can bring more probability of favourable activity for human being in comparison to other environments.
- (5) **Neo-determinism:** Griffit Taylor brings out this theory. He opines, though natural environment is not the ultimate controller of man's everyday activity, but its influence can never be undermined. For man, his natural environment is a vast field which is difficult to circumscribe (means difficult to control). In a big city, we can't disobey traffic police, but have to stop and go when he signals. This view of Taylor is popularly known as 'Stop-and-go' determinism'.

Today we have enough research evidence for proving the impact of nature on man and his survival on earth, and also man's interference in various natural processes and their resultant effect on nature.

American geographer Ladis K.D. Kristof, in one of his researches stated three possible relation between man and nature—

- (a) fusion with nature, (b) rule over nature and (c) conquest of nature.
- (a) **Fusion with Nature:** This is a spiritual concept where the whole natural environment of the universe is said to be an active expression of God. Both man and nature are supplementary to each other. This happens, when a culture never views man as an independent entity from nature and separates him from nature. Ancient India and China had the same view on nature.
- (b) **Rule over Nature :** We find this type of people and their relationship with nature in western countries particularly. The material world is subjugated by man because it is a purposeful creation for the benefit of humankind upto the best.
- (c) **Conquest of Nature :** This type of relationship between man and nature has been found especially after industrial revolution. A completely material philosophy as it is,

never it thinks nature as a harmonious entity, and the duty of man is to bring control and harmony over it by subjugating it completely to human will and power. Conquering nature means making the earth/nature more useful to mankind through a meaningful metamorphosis by the application of science and technology.

Now-a-days, in almost every part of the world, we fail to find a pure or unadulterated natural atmosphere. What we find instead is a metamorphosed environment as a result of human intervention with nature. This shows man's attituted to conquer nature. But what ultimately is the result? Man might have got a bit of material comfort but has to sacrifice a large in the form of pollution, warming and spread of harmful diseases. Air pollution, water pollution, soil pollution, sound pollution, global warming, Ozone depletion have brought colossal destruction for mankind.

Feeling the gravity of the situation we are exposed to, some philosophers and scientists have started thinking seriously to save man from this grave danger. This has given rise to a theory, popularly known as environmentalism. Environmentalism is saving nature from the harmful activities of men and bringing awareness among men about this.

A noted environmentalist K. Milton (1996), in his book Environmentalism and Cultural Theory says, "Environmentalism refers to a concern that the environment should be protected, particularly from the harmful effect of human activities." Environmentalists may have different opinions, but they are same in one respect—the protection of environment at all costs.

One of the easiest way to make it happen is making people feel the benefit of nature through eco-friendly uses and changing their attitude towards sustainable development.

Check Your Progress-2:
Direction: Write your answers on the space given below. Match those answers with the answers given at the end of the unit.
a) How many types of environment are there?

b)	Write the name of the elements of natural environment.
c)	Briefly write the concept of neo-determinism.

5.5 Environmental Perception

Perception has two dimensions—observation and feeling. In order to perceive one has to observe something and has to feel the same through sense organs. The stress in our discussion is on the second aspect, i.e., feeling. What feeling a person bears about environment?

In the beginning it is said that environment is a subjective concept. This means the perception a person carries about and of environment is true though his/her attitude may differ from others. It is highly probable that different people may have different explanations about the same environment they live in or are coming in contact with. Environmental perception is the attitude with which a person or a group observes and feels an environment. The way one expresses something of or about environment is the result of his/her perception of environment. This greatly determines and influences man's life style, decision and activity in daily basis.

Environmental perception is judged through the following five levels:

- (i) emotional response
- (ii) orientative response
- (iii) classifying response
- (iv) organising response
- (v) manipulative response

Now these are briefly discussed below:

Any environment in any place, presents certain stimuli before the people who reside in it. And people have different reactions (emotional) on these stimuli. Basically three common reaction (emotional) patterns are found—fear, anger and love. Fear generates flight response while anger creates fight response. But love creates an environment of peaceful co-existence.

In the second level, people decide their own orientation to environment acrording to the emotion they attach towards a particular stimulus. Each individual treats a particular stimulus uniquely as per the emotional experience she/he carries.

At the third level, she/he classifies these elements/stimuli she/he finds in the environment. Obviously, this classificiation is done on the basis of emotional experience and orientation she/he has for the stimuli.

Fourthly, an individual as per the previous classification, tries to organise his/her experiences and activities as per the classification.

At last, she/he forms a particular type of reaction about environment. This, really, designs the reaction or response towards environment in name of attitude and behaviour. Because of this, man has different reactional response towards environment, for example—co-operative attitude, sympathetic attitude, competetive attitude, fear attitude, irritation, anger, love etc. This attitude may be intensional, exploitative, awareness or careful type or may be of friendly in nature. This attitude influences the behaviour of man towards environment and man's behaviour also puts its impact on environment.

5.6 Enviornment of the Child

Childhood is the most important period in the life of an individual because it really shapes the future personality. This has become the catch word of people of every field including parents and teachers. The Freudian concept of 'childhood is the crux' of shaping an individual's personality is well accepted by scientists, politicians, sociologists, clinical scientists, psychologists and many others. Now everybody gives importance to 'child friendly environment' to ensure the maximum growth in a child. The care, education and potential environment will all contribute for their growth maximisation. So, let us discuss about the environment in which a child can get everything needed for a balanced and full fledged growth of personality.

5.6.1 Concept of Child

Different people perceive child differently. The view of a sociologist is different from the view of a psychologist; and the view of a poet is different from the view of a teacher. But to know the nature of a child, we need to know its complete base. The base of a child constitutes two prime entities—individual entity and collective entity. The individual entity is its 'biological entity' or the biological concept on which a child is recognised, and the collective entity refers to the socio-cultural identity that a child holds on. Parents and teachers want development of the child in these two respect. Let us discuss these two concepts in nutshell.

a. Biological concept of child

Each living being has a specifric period of living—called life span. This is the period between birth and death. During a particular life span, a living being creates its own kind through the process of reproduction. That is why offsprings bear similar features of their parents—physically, mentally and emotionally. The process through which spread or transaction takes place from one generation to the next generation is called heredity. Many a times we hear discussions relating to the inheritance of parental features or attributes by the children. For example, one may have the physical structure of his father at the same time psychological qualities of his mother. This happens because a Zygote (the future child) is formed when the sperm of father and ovum of mother are united in a particular environment inside the womb. Inside these sperms and ovums, are the genes, who really, determine what qualities the child will carry. Some other determinants are also found in gene. The gene and the other determinants determine the physical and characteristical features. Inside the sperm-cell, there is something called 'protoplasm' in which, gene, the real determinant resides.

So, the transportation of spermplasm (protoplasm) from parents' to their children is called heredity. But, one thing we have to remember, that is, for each feature a child manifests, a lot of genes are united to make it happen. After the Zygote is formed, with the process of mytosis, the development turns into a full fledged foetus. The foetus is placed in the mother's womb until it becomes a full fledged baby. When only one sperm is united with one ovum, then a single foetus is formed, but when two separate ovum react two separate sperm, they form two different foetus which leads to the birth of twins of Nonidentical in nature. Sometimes, it may so happen that a single Zygote is divided and two separate foetus are formed. This would result in the birth of identical twins.

When this foetus, after a period of staying in mother's womb, comes out of it and establishes its life independently, then we call it a baby. A biological symbiosis is formed and gives rise to the automation of different internal organs and their functions. Some of these are the skeletal system, the metabolic system, the respiratory system, the circulatory, system the excretory system, the neurological system and the reproductive system. Later on develops the hormon system. The process of development goes on until we get a full-fledged adult.

b. Sociological and cultural concept of the child

With the help of a biological activism, human baby gets its full-fledged physical system. Likewise, when a baby grows up, it moves beyond its physical entity and acquires an entity quite broader and comprehensive—known as social system. George Simel opines, society is the process of moving forward by mutual actions of individuals living in it. He further says, though different individuals are guided by different selfs, interests and intentions, but there is an ultimate symetry in all societies and in their societal behaviours. So, according to Simel, amidst all these individual differences, human being maintains unity through his obligation to certain rules and principles and some pre-defined activities, this is called social system.

A child gets its family inheritance of material wealth, decision making, life-style, whims and wishes and all type of social fulfillment when it grows up. With the on set of social and psychological maturity, it understands that in social benevolence lies individual benevolence. The completion of all individual potentials—material, educational, moral and spiritual—need a social platform. Individual and society—these are not two separate concepts, but supplimentary to each other. Bipin Chandra Pal, in this context tells, "I can't discard non of them—individual and society; as an individual has his/her personal thinking, wisdom, conscience, so also the society has its own thought, conscience and decision. Like individual freedom, society has its own rights and delegations. If we fail to accept it, then we may loose both individual growth and social harmony. And without discipline in society, no individual can grow."

The sociologists are of the opinion that the relation between two individuals are determined by their social interactions. This helps a society to maintain its features and to protect it from unwanted twists and to promote continuous growth. Social process is the mutual interaction of individuals in order to achieve certain prefixed goals. This process has

different names given by different sociologists. These are: interaction process, socialization, process of oposition and cooperation, accommodation and assimilation.

So, from the above discussion, it is proved that, for its existence, a human child needs an individual base and a collective base or social base.

Man is a social animal and it can't live alone. He wants to live a life of congregation and togetherness. In his everyday activity he also manifests the gregarious tendency and follows certain social rules. Even, this tendency is found in some lower level animals. Monkeys and apes have the tendency to live a life of congregation and cooperation. Even social qualities like fellow feeling, competition, friendship are also found in them. Some other lower level living beings show a few social qualities for their own survival. Bee, ant and white ants have the tendency to do every activity conjointly. The social life of these animals have great resemblance with that of human beings. But there is a basic difference. The social life of all these animals never change. Year after year, age after age, they show the same social rules and principles without any change. Unlike these animals, man has a society that moves and changes contineously. Keeping the hands of evolution, the stage in which now he reached reflects his continuity in thinking and activity. And this change and continuous movement is one of the important features of human society. The development in thought process and in chetna has brought forth refined human domains—known as culture. While the social activity of animals are instinctive, man's social activity is educational. The birds build nest, spiders construct web and bees make bee hive—all these show skill and creativity, but are instinctive in nature. But man's activity constantly changes and shows a continuous spark of evolution. This is what we call culture, and in this respect man is the only cultural animal in this world.

So, from all these discussions, it can be said that man is not only a biological animal, but also a social and cultural animal.

5.6.2 Growth and Development

Growth and development are two important features of every living being. Man's life evolves through these two processes and proceeds towards betterment. From conception upto death these two processes continue to accompany man. In this section, the effect of heredity and environment on growth and development will be discussed.

Growth and development show two different dimensions of human life—the first being quantitative and the second qualitative.

Growth Before Birth

After 2-3 weeks of the formation of Zygote, the foetus starts growing rapidly and now can be visible through microscope. Later on it grows proportionally with the age of the child. It has been found that after 12 weeks it becomes 10 cm, after 20 weeks it becomes 25 cm and after 40 weeks it becomes 53 cm. With the increase in volume, the weight of the zygote also increases. Within first 5½ months, the weight becomes 450 gram, and at the time of birth the weight approximately becomes 3 kilogram. The process of respiration starts much later even though the heart starts functioning after 4 weeks of conception. Around the middle of pregnancy period, the baby is capable of receiving amniotic fluid.

In this way, different limbs and body parts are formed, and the process continues even after the birth of the child. The process of evolution is something inherent to human being which facilitates change and urges a finer biological make over. This is what we call growth. In the language of Life Scientists, "Growth refers to the process of quantitative changes in various characteristics of the individual with reference to a frame of time." The modern scientists even go far beyond this definition of growth and opine that growth is not delimited to the biological shapes and sizes of a living being but how it adjusts/adapts itself to the environment where it exists. The schematic make over, the biological and environmental homeostasis—all have their role which affect growth. So they are considered essential parts of growth. In this respect, how far the physical growth helps to bring qualitative change in a child is the matter of importance. This qualitative aspect of growth is called development.

In the language of Life Science, "Development is the continuous progressive qualitative change in the life of the child." So, it is a holistic process of continuous change which brings maturity and higher understanding about the world and reality. The following are some of its features:

- (i) Development is a life time process—it starts from birth and continues upto death.
- (ii) Development is coherent and spiral. That means, each succeeding stage is related to and dependant upon the previous one.
- (iii) Development proceeds from general to specific.

- (iv) Excepting the features of individual difference, development follows a common pattern for all human beings.
- (v) Development proceeds stagewise and each stage has its own characteristics.
- (vi) Development is symbiotic and correlational.

In modern times, education is considered a life long process like that of development. Both education and development have many things in common. So, by following the principles of development, parents can bring out their children in right direction.

5.6.3 Stages of Development

For all placental animals, two distinct stages of development are found—pre-natal and post-natal. The same is true in case of human being, though the period of longitivity of these two stages are different from other animals.

Psychologists have classified the life of human being into different stages. Pikunas, a psychologist, has classified the life of human being into the following stages:

(i) Pre-natal stage, (ii) Just-born, (iii) Early babyhood, (iv) Late babyhood, (v) Early childhood, (vi) Middle childhood, (vii) Late childhood, (viii) Adolescence, (ix) Adult stage, (x) old age.

In consideration with age these stages are as follows:—

- (i) Pre-natal: from conception to birth
- (ii) Just born: from birth upto four weeks of a baby's life
- (iii) Early babyhood: from 1 month upto 1½ years of baby's life
- (iv) Late babyhood: from 1½ years upto 2½ years of a baby's life
- (v) Early childhood: from 2½ years upto 5 years of a child's life
- (vi) Middle childhood: from 5 years upto 9 years of a child's life
- (vii) Late childhood: from 9 years upto 12 years of child's life
- (viii) Adolescence: from 12 years to 21 years of a person's life
- (ix) Adult: from 21 years upto 70 years of life
- (x) Old Age: from 70 years upto death.

Another psychologist Earnest Jones classifies human development (particularly postnatal) in the following way—

(i) Babyhood: from 1 to 5 years of life

(ii) Childhood: from 5 to 12 years of life

(iii) Adolescence: from 12 years to 18 years of life

(iv) Adult: from 18 years to onwards

The classification of Jones are described here in nutshell.

- (i) **Infancy/Babyhood:** The growth of the baby is temporarily decreased just after the birth. The process of inhalation and exhalation starts working just after birth. After one month, again the growth of the baby gets momentum. Generally, at the beginning, the head and torso are large, but later on the size becomes normalised. In the later part of babyhood, growth rate somehow decreases, but not permanently.
- (ii) Childhood: During childhood, the growth rate diminishes. But during this stage teeth emerge. At the end of childhood milk teeth vanish and permanent teeth start comming up. In comparison to heights, children grow breadthwise. At the end of childhood, the size of head gets completely normalised and the linear growth of the body is accelerated.
- (iii) Adolescence: This is the period between childhood and adulthood. During this stage, the secretion of hormones are rapid and the body gets a significant makeover. This change comes earlier in case of girls in comparison to boys. Holistically, a child turns into a boy or a girl, which in later stage makes him/her a male or a female. Sexual diamorphism is one of the features at this stage.
- (iv) Adulthood: After adolescence, comes adulthood. During this stage, the height becomes constant, growth remains stable. Generally males have their apex height at the age of 21 and females at the age of 18. But, for the best feature of adulthood to appear—that is the capability of reproduction—they have to wait a bit longer.

5.6.4 Role of Heredity and Environment in the Development of Child

While discussing about the biological base of the child, we have already dealt the fact that the off-spring acquires the genetic inheritance through sperms and ovums of father and mother respectively. In many human beings there are different 'genotypes' upon which the development of the child depend. Generally, children inherit their parental features in as much growth and development are concerned.

Genes play important role for an individual as far as the physical characteristics and other features are concerned. But how far is environment important? Researches show that the role of environment can never be undermined. The best explanation is that the growth and development of a child depends upon the heredity, environment and time factor. Unless a particular time is ripe, we can't expect certain things to happen. These three are equally important for everyone. For example, without a particular chromosome the growth retards, so also development. Practically, the work of gene depends upon the environment. Inside the mother's womb, this environment denotes the neucleus, cytoplasm and their place in cell. An important feature of gene is that its penitranse and expressivity determines the extent to which a particular feature is to appear in a child. Environment plays an important role in the growth of these two features in gene.

After all, heredity and environment have their joint effect upon a person. According to Maclver and Page, "All the qualities of life are in heredity, all the evolution of qualities depend upon the environment."

5.6.5 Role of Environment on Biological Development of Child

The pattern of development of human child is of two types—biological and sociocultural. The biological determinants are as follow:

- (i) Health of mother, embryonic environment and blood type
- (ii) Food and energy circulation
- (iii) Age of the child
- (iv) The hormone system of the child
- (v) Geographical and historical source

These are discussed below:

(i) **Health of Mother, Embryonic Environment and Blood Type:** The human child remains inside the mother's womb for a period of 287 days. During these days the child's development is intigrated with the health of the mother and the embryonic

environment. The concept of environment started from the formation of Zygote inside the mother's womb. The researches in these fields say that children who have physical and mental deformities have their corresponding cause lie while they were in their mothers' womb. After 2 weeks of conception, the baby remains in a sac like structure connected to embryo which is filled with a liquid called amniotic fluid. This fluid should be completely pollution free.

This primary environment of a baby sometimes is virus affected through placenta. Moreover, during this period, mother's illness, her walking and other activities, unhealthy psychological condition may harm the baby.

The embryonic environment is polluted by one more cause, that is, the smoking habit of mother. If the expectant mother is addicted to any kind of habit relating smoking, then there is high probability that there may be a premature delivery. This is quite detrimental to a child's physical and mental wellbeing.

Another important consideration to be kept in mind is the presence of Rh-factor in the mother's blood, which, if found incompatible, may cause the death of the baby. This can happen if the mother is exposed to some harmful ray or gas.

- (ii) Circulation of Food and Nutrition: The baby gets all its required food and nutrition for health and energization naturally. This is made available through plants—their root, fruit, flower and branches. If the child fails to get the required food, then she/he may suffer from mal-nutrition and diseases related to it. Moreover, the natural growth of the child is affected by this. Due to poverty, many children fail to get the required food for which their physical development, particularly, the formation of bones, may be found defective.
- (iii) **Age of the Child :** After birth, the child experiences multiple changes in his/her body. There are certain changes which take place after a particular time or in a definite time. The work of antigen gene is determined before birth, but there are some diseases like alcaptoreuria, the gene of which is manifested after birth. The immune power for vitamin-D came one year after birth. Juvenile amaurotic idiocy is seen during 5-10 years of age. The head patterns emerge at the age between 20 to 30. Diabetes as a disease is found about 40-60 years of age.
- (iv) **Hormonic System :** The effect of hormone is one of the important factors of growth. This is a biochemical secretion that controls the growth pattern of human

being. For human growth three important hormones are essential—the thyroxin from thyroid, STH and GTH from pituitary and adrenalin. The composite effect of all these are important for acceleration of growth and development.

(v) Geographical and Historical Source: Racial heterogeneity is one of the causes that controls growth. By considering geographical and historical trend we find the inner rules of heredity and environment. There found a great difference in physical features of people belonging to different continent due to this cause. That means climate and natural habitat influences the development of human being. It is found that people living in high altitude have larger chest and lungs in comparision to people living in sea areas.

So, it can be concluded that a clean and congenial environment accelerates the process of growth while a polluted and unhealthy environment retards the same. Disease, broken health, physiological disorder brings halt to the natural growth of the child.

5.6.6 Role of Environment in Social and Cultural Development of child

Each and every society has its ideals and uniqueness. A society gets its completeness through certain rules, regulations, ethics, and samskaras. People of a particular society try to abide by the customs of that society and also try to shape their children on that line. This process is called socialisation. This is the base of society and generation after generation this has built a cultural life. Now, it becomes a common question—how does the process of socialisation take place? To what extent environment has its influence upon it? We are going to discuss the role of environment on socio-cultural development of human child.

- (i) Knowledge Acquisition: The senses are the gateways of knowledge. A child through the use of his sense organs experiences the nature in its totality and thus enriches his/her stock of knowledge and uses it for society. The child gets the scientific and social knowledge from nature and understands him/her and the society through interaction with nature.
- (ii) Development of Discipline: In the kingdom of nature, everything happens with a discipline and by definite laws. Seasonal change, the existence of stars and planets and other natural activities—all follow a definite law. This brings forth the concept of discipline in children.

- (iii) **Aesthetic Development :** The natural beauty that a child perceives develops the concept of symetry and symbiosis in him. The beauty of leaves and their symetry, the beauty of flower—its colour and structural arrangement, mountain, hill, plateau, stream, river and sea have the ability to generate required aesthetic sense in the child. This, in future, makes a child a poet, a writer, a painter or a musician.
- (iv) Emotional Development: A child, from its very birth acquires the twin traits of emotion like laughing-crying, pleasure-pain, happiness and sadness etc. The important fact is that the child realizes and controls these emotions on different happenings of nature.
- (v) Socio-Cultural Development: Even in animal kingdom we find manifestation of social qualities. While living in their society they show their unified love, sympathy, and competitive spirit. A human child observes these during his/her early period of life and tries to imitate these qualities. Even from nature the human child develops an inclination for technology, intellectual manipulation etc. So, the living examples of nature teaches the child to be enriched with higher qualities of society and culture.

Hence, nature takes the first responsibility of socialising the child. One of the important aims of modern education is to make the child an useful element of society and culture. Nature is the first teacher in this case.

Society takes a big responsibility in the development of social qualities in men. Man's urge to structure society in the way he desires and society's role in making man a social animal are supplementary to each other. Let us discuss some of the important roles of society in this context.

Role of Society:

We all know, 'Man is a social animal.' But what does it mean by 'society'? It is very difficult to provide an all-acceptable definition for it. Professor MacIver defines—"Society is a system of usages and procedures, of authority and mutual aid, of many groupings and divisions, of controls of human behaviour and of liberties". Here, MacIver considers the whole social system as society. Another social scientist C.H. Cook defines it as an 'ever changing web of social relationship'. In society, we find a continuous process of interaction between and among individuals. Socialisation takes place through this interaction. It is a continuous process that encompasses the whole life of an individual. Through socialisation, an individual acquires the principles and values of a society or group to which she/he

belongs. Some of the elements interrelated to this process are initation, suggestion, identification and language learning. Through all these elements the process of socialisation starts from the beginning of a child's life. The agencies which play important roles for social and cultural development of a child are—family, peer group, school, religious institutions, mass media, state etc. Some of these are discussed below in nutshell.

- (1) **Family:** According to Maclver and Page, "The family is a group defined by a sex relationship sufficiently precise and enduring to provide for the procreation and upbringing of the children." Some of the features of family are:
 - (i) Family is a permanent and universal institution.
 - (ii) There exists a mutual affection and emotional bonding among the members of family.
 - (iii) There is a common place of residence for the family.
 - (iv) Family is an economically cooperative institution.
 - (v) The members of a family know how to fulfill their duties and responsibilities.
 - (vi) Family is the birth place of a child and is the first social environment.
- (vii) The structure of a family is ever changing. Death, marriage and divorce frequently alters the size of a family.
- (viii) Family shapes the mental horizon of a child.

Role of Family in the Social and Cultural Development of a Child

- (i) **Birth of the Child and its Care:** At the very beginning, when a child is born, it is a helpless creature. Later on, with the help of parents and other members, it learns the skills of living an independent life. But during that period of helplessness, each and every child is to be taken care of intensely until the child learns to do everything by its own.
- (ii) Care for the Psychological Development of the Child: Family has one of the strongest bonds among its members which unites all through its emotional interaction and mutual co-existence. The mutual, love, trust, understanding, sharing of responsibility and pain gives the child necessary understanding of society and enriches the mental faculties of a child. The interaction among the members of a family shapes the mental development of a child.

- (iii) **Social Recognition :** The position and respect of a family in a larger society determines the same for the child. One's individual personality is reflected through the respect of one's family in the society. Difference in family respect in a society creates difference in self respect.
- (iv) **Socialisation of the Child:** The process of socialisation of a child starts from the family. Family has the biggest responsibility in shaping the social qualities of a child. The child learns discipline, punctuality, morality, social rules and responsibilities, values and 'we feeling' from the family.
- (v) Formation of a Child's Religious Outlook: Each and every family shares a religious value and its corresponding customs through direct and indirect participation. The same is transfered to the child by the parents and other elder members. The attitude of liberalism and staunch fanaticism—all are the family injections upon the child.
- (vi) Maintenance of Educational Responsibility: The first learning for every child is the learning of language. Language development takes place in the family. The quality of language—knowledge, vocabulary, sentence structure, expression—all depend upon the cultural and educational level of the family members. Not only that, family also makes a child ready for formal education by teaching him/her the required behaviour to be an ideal student.

In the later stage, family also influences the quality of formal education of the child.

(2) School: After family, school takes the second biggest responsibility in socialising
and educating the child as per the need of the society. When it is felt that family is not
capable of providing all types of education required by the child, then the head of the
school arises. This formal institution along with its academic function has the additional
responsibility of socialising the child. Stage wise school has different nomenclatures—
Primary School, Secondary School, College and University. The following are some of the
features of School:

_	Physical existence and building
	Learners
	Curriculum
	Teachers

- Essential infrastructures and equipments
- A system of management etc.

Role of School in Socio-Cultural Development of a Child

- (i) **Development of Knowledge:** The knowledge a child acquires before coming to school is insufficient for his/her survival. The stock of knowledge needs manifold enhancement for his/her social, cultural and personal growth. School, through its curriculum and teachers, provides a lot of information and wisdom essential for a child. It also helps the child to be enriched culturally.
- (ii) **Development of Personality:** The child, from its very birth has certain instincts, which are harmful. These instincts may prompt wrong path for him/her. The school channelises these instincts into positive habits and provides platform for development of creativity, intelligence, rationality and knowledge essential to be an useful member of the society. Side by side, it also reshapes the child's potentiality, interest, choice, capability and nature through its curriculum and reformatory action. This really gives a positive shape to a child's personality.
- (iii) **Inculcation of Social Spirit :** The school has its rules and regulations, and each child has to abide by these rules. By giving respect to these rules and regulations, children develop qualities like cooperation, sympathy, mutual love etc. Through these qualities the child is enriched socially.
- (iv) Development of Democratic Spirit: To inculcate the democratic spirit in the child, school also has the required provision. It provides the essential knowledge, skill and efficiency to be a good citizen of the country. It also provides concepts and informations about the duties and responsibilities of citizens, human rights and role of state for its citizens.
- (v) Preservation and Propagation of Worthwhile Culture: One of the important functions of school is to preserve and propagate the knowledge and wisdom that the society has gained through generations of labour and hardship. This helps in human evolution. All these knowledges are to be stored in libraries for future use, and propagated through activities and responsibilities.

School transferes all the cultural elements and history of a society to the next generation through its curriculum. The thoughts, principles, ideals, samskaras and faiths are reflected in a curriculum so that children can learn and make use of it. So, continuity is maintained and the child can make use of the wisdoms and experiences that his forefathers had. But this alone is not sufficient. There should be ample scope for the new knowledge to come. At times, the old knowledges are to be modified in the light of newer ones. Man's progress is possible only when experience is continuously upgraded. School does this work for the child.

- (3) **Peer Group :** During childhood, particularly after late childhood, children spend a lot of time with their peers—friends of equal age and choice. These peers have important roles in the process of socialisation. The child is natural in his/her behaviour before his friends and feels free to share many things with them. They learn many things from their peers which they fail to know/can't know from their parents and other elders. Many modern values are learnt by the interaction with peers. For a healthy society, these values are very much essential. Moreover, these groups act as big sources of refreshment and entertainment for the child. These groups also help in developing 'we-feeling' among children through play and other such activities.
- (4) **Religious Institutions :** Religion is the duties and faiths attached to the higher and subtler goals of human life. This is considered something to be extra-material, pious, lofty, ideal and benevolent for all members of the human kind. The faith and behaviour relating to that higher goal make man sublime and ethically strong. He never does have inclination for unsocial and antisocial behaviour if established properly on the path of religion. To propagate this, different religious institutions like Maths, Masjids, Churches and Gurudwaras are established. They regulate and direct human behaviour towards man's ultimate perfection. The following are the roles of religion for human life:
- (i) Man's behaviour and activity is controlled by religion. It helps man to behave socially through its codes of conduct.
- (ii) In society, man is entraped by so many problems and pains. Religion frees man from it.
- (iii) Religion builds man's character and shapes his personality and activities.
- (iv) Religion is the chief source of the ideals and principles needed for the smooth functioning of society.
- (v) Religion helps man to go beyond individual self and work for a collective self.

- (vi) Religion in its different forms helps in reformation and scavenging of society.
- (vii) Religion also promotes education and philanthropy.

Cl	heck Your Progress-3:
	rection: Write your answers on the space given below. Match those answers with the swers given at the end of the unit.
a)	Why does a child need aesthetic sensibility?
b)	Why, even a child should by given respect in the society?
c)	Write two roles of school for the overall development of a child.
	write two roles of school for the overall development of a clind.

5.7 Summary

This unit deals with the environment that a child gets for his/her development. Environment, in this context, is meant as the stimulus-situation in which the child is helped in his/her all round development of personality. An environment is classified according to the features and elements it carries. Man has his relationship with different elements of nature/environment.

Another important dimension of environment is its feeling aspect. Man's everyday activity is influenced by the environmental entity. It has five categories. Childhood is one

of the important stages of human life. Environment has a significant impact upon child's life. The biological and cultural aspect of environment have the greatest impact on a child. Because, with these is attached the growth and development of a child. But heredity also plays an important role in the growth and development of a child.

5.8 Exercise

- (a) Write the answers of the following questions within 150 words:
 - (i) What do you mean by environment?
 - (ii) What is rural environment?
 - (iii) Mention the levels of environmental perception.
 - (iv) What are the stages of development in a child's life?
- (b) Write the answers of these questions within 300 words:
 - (i) Narrate the relationship between man and environment.
 - (ii) What do you mean by Neo-determinism?
 - (iii) How a child is to be given food?
- (c) Write the answers of the following questions within 500 words:
 - (i) Describe the biological concept of the child.
 - (ii) What do you mean by cultural development of a child?
 - (iii) Mention the role of heredity for a child's life.
 - (iv) What role does school play for a child?

5.9 Answers to 'Check Your Progress'

Answers to Check Your Progress-1

- (a) Something that influences us within our boundary
- (b) Mutual action and reaction
- (c) Activeness and comprehensiveness

Check Your Progress-2

- (a) Five types
- (b) The element of natural environment are inert, man is a living element
- (c) Though man's action can't control environment completely, but it does influence nature or environment.

Check Your Progress-3

- (a) Aesthetic development helps the child to be poet, painter and literateur in future.
- (b) The growth and development of a child depends upon the respect he/she gets from the members of family and society at large.
- (c) Development of knowledge and formation of personality.

Unit 6 ☐ The Environment where the Child Lives

Structure

- 6.1 Introduction
- 6.2 Objectives
- 6.3 Responsibility of parents
 - 6.3.1 Physical growth, care and protection of child
 - 6.3.2 Parental responsibilities for the development of mind, emotion and social self
- 6.4 Responsibilities of teachers for growth and development
- 6.5 Summary
- 6.6 Exercise
- 6.7 Answer to Check Your Progress

6.1 Introduction

An anticipated environment of pleasure is built up in a family when a new baby is supposed to come. The charm of motherhood and fatherhood are to be realised after a long wait. The whole family prepares its climate to welcome the new comer. Each parent decides his/her role for the new comer according to the social rules, personal presumptions and experience. All these are done to provide necessary physical, mental, emotional training to the child, to help him/her for a holistic growth and for a secured life in future. The following discussion will give a clear concept of all these duties and responsibilities of parents for their new born baby.

6.2 Objectives

After reading this unit, you will be able to:

- understand the duties and responsibilities of parents for their new born babies.
- know the roles and activities of teachers for the all-round growth of children.
- apply the knowledge when situation comes.

6.3 Responsibility of Parents

Parents have two major responsibilities for a new born:

- (i) Physical Care and Development
- (ii) Mental, Emotional and Social Development

6.3.1 Physical Care, Protection and Growth of the Child

(a) **The Duties of the Expectant Mother:** During pregnancy, the mother should be careful of not falling at the trap of any disease or infection of virus or bacteria. She should immediately go for treatment if any kind of illness or infection intrude her. Not only that, she should be careful of not getting any kind of physical hurt.

The mother should be careful about her physical movements like sitting, walking and other physical activities. Any type of faulty movement may bring handicap for the upcoming child.

The mother should also be careful about drugs and narcotics and should try her best to avoid these during her pregnancy.

The food of the would be mother should be of high quality. Any type of malnutrition is not only detrimental to her health, but also for the baby.

The mother must save herself from all kinds of harmful thoughts, mental hypertension and psychological mishaps. This can affect the growth of the foetus in many ways.

(b) Care of the New Born Baby: After coming from the mother's womb, the baby on the first day can do many simple physical movements like yawning, movement of eyelids and heads etc. Through these simple activities, the baby tries to ease his breathing process. It also responds to light and it has the ability to suck, swallow and move its mouth for eating.

But the mother should be careful enough to see if these happen naturally or not. Any deviation, if found, should be brought to the notice of doctors and treatment must be initiated at the earliest. If the child has a pre-mature birth, the responsibility of mother even increases more. A period of intense care is to be taken from the birth of the baby upto four weeks.

- (c) **Vaccination:** In the first year of a child's life, vaccination is to be done for protecting the baby from various diseases that might attack at any time. During this period, the baby's immune system is weak, and hence, it is very difficult to cure if it gets any of the diseases like tetanus, measles, tuberculosis, whooping cough, polio and diptheria. The mother should be very much careful about this. For these diseases she should compulsorily vaccinate the child. Even health conscious parents go for vaccinating the child for diseases like influenza, rubella, jaundice etc. Upto age fifteen, constant care is to be taken against these diseases.
- (d) **Food Habits of the Baby:** The baby learns the mechanics of eating as per the demand of body. It gets its highest pleasure through eating. The mother should know the time of feeding the child by observing its behaviour, like crying and frequent movement of hands and legs. Breast feeding is quite vital in this stage. The baby must get enough love and affection even in the process of eating. Within this period if the baby does not need external food, it vomits when the same is given to. The best food for the child during this time is mother's milk. In the modern times, particularly in cities and towns, mothers have the tendency to give up breast feeding as quick as possible. But this is not a good symptom and it causes harm to the baby and its development. The World Health Organisation (WHO) in one of its observations says that mother's milk is better than any other outside food and it best fulfills a baby's requirement. The cholesterol present in mother's milk is very good for developing a sound immune system in a baby.

When a baby grows further, then a few more things are added to its food list. Then certain problems relating to taste and smell of the food, whether the food is hot or cold, soft or hard affects the eating habit of the baby.

The duty of parents is to take care of the baby's eating preferential. Without compromising the food value, the baby is to be provided all types of food according to its age. The food at this state is to be given not as a matter of preference but that helps the baby's development.

(e) **Toilet Habit :** When the baby is in its mother's womb, it does not have the necessity of intaking food, producing excreta and urine. But after coming out of it, the baby feels the necessity of it. The whole system of the baby gets a change to adapt with the external environment. With an increasing age, the baby starts taking varities of food items. Excretion and Urination become a natural process for the baby. Any type of irregularity in it is detrimental to its health. But many mothers are irritated with the frequent excretion

of their babies as it makes the place dirty and untidy. They, at times, force the babies to excrete right after eating. Many a times they make rules for their babies and try to train them accordingly. But this has no yielding. Until the right age comes, nothing can be taught to the baby. After two years, it gets the capacity to immitate, and then all these training may be provided sequentially. This is the right age for toilet training and formation of correct habits relating to it.

Within 2-2½ years, the baby should learn to go to toilet by changing the dress to the destined place. This is the duty of parents to teach them. Any type of irritation or hate may affect the baby's personality. Even if the baby fails to attend a particular place for it and does the same here and there, the parents should never scold them. The babies should be dealt with more love and care.

(f) **Encouraging play-habit :** Upto 2 years, the parents, and some elderly members are the baby's playmates. But when it grows, it feels the necessity of playing with certain rules and regulation, play becomes the central factor for his growth and development. The baby not only gets emotional satisfaction, but also matures its personality through play. Its physical development, social development and mental development get their shapes through play.

At the beginning, the baby has a little knowledge about social reality. But through play, it understands and exercises the principles of reality in its life.

Through play, it studies its friends, learns the principle of cooperation and fellow feeling. And the parents should never look askance to play for this cause. They should not impose a particular play on their baby. Rather the baby must choose it according to its need.

Plays are choosen by the babies as per their mental and physical demand. The baby should also get enough freedom in their selection and other matters of playing.

6.3.2 Parental responsibilities for the development of mind, emotion and social self

1. Fear, Anger and Love:

(a) **Fear:** Fear is one of the basic human emotions. Different babies develop fear in different situations. Particularly the environment in which the baby grows affects this. This has also link with the mental development of the baby. If the baby develops fear for

something or for some reason, the cause must be found out and accordingly the baby must be trained to conquer it. If situation demands, experts are to be consulted.

But the baby is to be taken care of if it develops irrational fear. The parents should also unwantedly not inject the elements of fear in them. This happens when parents want to get rid of the baby or its behaviour, and the easiest way is to develop fear in them. But this tendency of controlling their behaviour is not scientific. They should rather investigate the reason and situation in which fear takes place. They must take a vigil upon their babies' behaviour. If the baby becomes adament, it is to be dealt with utmost love and intelligence, not by ghosts and apparitions.

When a baby develops fear, a type of security-feeling is to be developed in it. Self-confidence, mental stronghold are also to be developed. To iradicate fear, the baby is to be advised to go for painting, playing and some bravely activities. The parents must paitently deal with their babies to wipe out fear permanently.

(b) Anger: A human baby learns to distinguish its own identity from that of its mother's after six months. That is why it always wants its mother by its side. And when the baby is not with its mother, it feels angry. Besides that, a baby also gets angry when its expectation is not met, when it is ill and when there is conflict between father and mother. Every fear causes anger. But the parents should be worried when this anger hinders a baby's communication with its parents and other elders. When a baby gets angry, the parents should think of proper ways and means to pacify the baby. Cares should be taken for keeping the self-image of the baby intact. Comparing with others make the baby angry and creates inferiority complex in it. This should never be done by the parents.

Fear generates anger. Hence it is the duty of parents to take fear-generating situation into consideration and must think ways and means to get the baby out of that. During its early periods, a baby's main cause of getting angry is its separation from its mother. Particularly, working mothers should consider this with importance. Because, their long absence creates displeasure and insecurity in the baby, and from this anger comes. Sometimes, to pacify the anger of their babies the parents feel desperated and when they fail to do so, despair comes.

The parents must be aware about the health and well being of the baby at the highest level during this period. As they do not have the ability to express through language, they

are bound to express through crying and other emotional patterns. Ill-health is one of the causes of anger during babyhood.

The parents should keep this in mind that anger is a powerful emotion, and if it can be channelised in proper direction, this will enhance creativity of the baby and create a congenial atmosphere for others to live in.

(c) **Love:** Love is another basic human emotion. It has two aspects—seeking love and giving love. When someone gets matured, the seeking aspect of love gradually transforms into its giving aspect.

The parents must take care of the later aspect (giving love) and how it can be gradually developed in their children. With the increase in age, the self-love of the child must gradually metamorphosed into a love for others. For this, the child must get an environment of love, particularly from parents. A child learns to give love, share love and generate love in others only in an atmosphere of love. In fact, the concept of love is generated from the parents. In this context each parent should see that the child must not indulge in self-love, rather, should show a path of widened love for humanity as a whole.

Many a times, parents have the tendency to punish their children for every mistake they commit. This generates despise and anger in children the start hating their parents. In this case, the parents should correct mistakes of their children with love and care. Always, a positive attitude towards life is to be created. Then only the child owes its love for the family, for the society and for the whole humanity. Love is an important instrument for removing inferiority complex and making the child independent in every possible aspect of life. This should be clearly perceived by the parents.

2. Understanding Nature of the Child:

It may be easy to understand a child theoretically, but a child has its own way of doing and seeing things. We, at times, neglect seeing the child in its own perspective and impose our own ways and principles upon him/her. Parents have the tendency to regulate all the activities of their children. In some cases, they want their unfulfilled dreams to be realised through their siblings neglecting the time and individual difference. But the interesting thing is that each child possesses an inborn power of insight through which it can guide its life on the right track. The duty of parents is to provide love, sympathy and cooperation to their children and help them to feel reality as clearly as possible.

3. Praise and Encouragement:

Recently we may notice people saying, 'Today's children are not obedient and devoted to their parents as was before'. But this is not true. If you take care of a sapling properly, it would grow into a healthy plant. Likewise, if proper care is taken by the parents, then never the child would go astray. The parents should provide praise, encouragement and generate 'faith in human values' in them. If a child fails, never should they discourage the child. And moreover, they should not seek success in each and every activity of their children. If they make mistakes, they are to be corrected wisely and sympathetically. For every single activity, they should be constantly encouraged. The child is to be shown right path through tender love, initiation, encouragement and independence.

4. Truth and Falsity:

The power of observation and concept formation of children is weak. That is why they ask many questions relating to the world and society to their parents. Even their expression capacity is not mature. Naturally, their presentation of facts and informations are unclear and in-coherent. That is why we sometimes feel that whatever our children say are false. For this even children get ill-reputation from their parents and other members. If something is expressed clearly, then it gets the respect of truth. But this an ability that takes time and the child learns it through numerous interaction with others and through his own experience. The parents should be patient, sympathetic, truthful and cautious to teach their children the same. They should never reside in falsity, lest their children may acquire it.

The parents should promote the natural process of concept formation, expression with sympathy and chestity. They should be courageous enough to speak the truth before their children and encourage the same in them. Responsible parents never blame their children directly and immediately, rather investigate the matter and then take action as per the need.

(5) **Independence**:

After 2½ to 3 years, the child feels the urge of being independent. So, parents should loose their control upon them and must assign small works to help them develop this habit better. Independence is a natural sequence of growth and parents must not debar their children from it.

(6) **Stubbornness:**

When a child fails to exercise his self-image and independence, anger comes. In this situation, if it is given any kind of mental torture or dissapproval then the tendency to

disobey develops. In this case, the parents should control their children's anger with much patience. With an utmost kind heart and cool mind the child is to be treated.

(7) **Jelousy:**

The parents must love their children. But they should see that the feeling of possessiveness must not be generated in them. This tendency is generally transmitted from parents. When the independence of each member is respected, this problem is minimised. The parents if see this tendency in their children, must find out its cause and try to iradicate it. No amount of joking or caricature will cure this disease. They rather, are to be shown faithful and simple behaviour.

(8) **Delinquency:**

Any behaviour that goes against the established norm of the society is called delinquency. The reasons of delinquency are many and varied. A few causes are pointed out by specialists. These are :

- (i) If the parents are too strict and cruel
- (ii) If the child is neglected in its family
- (iii) If it goes astray by coming in contact with wicked gangs
- (iv) If any mental inharmony is there
- (v) Development of crookedness
- (vi) Uncontrolled emotion and its outburst
- (vii) The feeling of hatredness and insecurity.

Besides these above reasons, one of the important reasons is the personality and mood of mother. The parents must be as natural and truthful to the child as possible. It should get the love and affection as per the need. They, side by side, should establish a calm and congenial atmosphere in their family.

If more than one child is there in the family, each one should get equal love and care. The parents should not compare one child with the other and on that basis should nevers cold them.

(9) The Art of Questioning:

When the child starts mastering a language, preferably the mother tongue, the process of communication begins with its family members. It starts asking a lot of questions to the parents and other elders. They also start asking many questions to the child. But the art of questioning has not been fully developed in children. The parents should not put such questions which their children will fail to answer due to insufficient language development. Moreover, they should never ask questions harshly and rudely. This may create fear and phobia in them. The child may give false answer and may dilute the answer. When parents ask simply and intelligently, children answer it in that way. The child uses its experience and full capacity to answer it. Even good questions generate, curiosity and enthusiasm in them. In this context, the parents should remember that the questions should be brief, easy, simple and realistic.

(10) **Development of Knowledge:**

The main aim of human life is to keep the existence intact. For that, a child has to know both natural and social world and has to learn the art of adaptation. This will come when the child develops knowledge about and concept of things, and rules and principles of the world. After its birth, a child constructs its knowledge of the world through its sense organs. So, training of these five senses—listening, seeing, smelling, tasting and touching—is vital to the acquisition of knowledge. For this, the child must know the world around it intimately and parents are to be there to help whenever the child needs. Along side these concepts are the laws and principles of cause and effect. They need an analytic mind to know this. Thus parents must take necessary steps to develop the same in their children.

Then comes the ideational level. This is the most abstract level of knowledge. A deeper understanding of facts and phenomena enables the child to come to this stage. All these become possible if a child gets right kind of atmosphere in its family. This would yield a balanced development for the child.

Later on, when a family feels that the vastness and comprehensiveness of the domain of knowledge requires a formal institution of knowledge, then the child is sent to a school where professionals are there to make him/her learn the art of living. Here, the child gets a new environment, and tries to bring a harmony between the two (school and home).

As far as development of knowledge is concerned, three points are to be remembered : These are :

- (i) **Silence :** When a child understands by using its experience.
- (ii) **Mental Processing**: When the child acquires knowledge through its mind or 'chetna'.
- (iii) **Physical Expression :** All the ideational waves of mind or chetna are expressed through certain activities at physical level.

A balance among these three activities makes a human child perfect and helps in higher realisation. In one side the child tries to harmonise with the cosmic laws, and on the other side his/her formal education. The child goes on for its life experience in this way. The parents must provide their helping hand in every matter during this stage.

(11) Parents' Patience:

Children, by nature, are restless. Their behaviour, sometimes, is not liked by the parents. But the later should never force them to do something. Children may not have physical strength like the adults, but have enough mental strength to defeat the later. The Swiss psychologist Jean Piaget suggests that the child to be grown as per its own way. Naturalist Rousseau says, "Children must be given the environment to grow according to their nature." So, the parents should be careful and patient in dealing their children. The personality of children is shaped by parents. They must do it with enough patience.

(12) Being with the child:

In reality, how much busy might the parents be, but they have to give time to their children. They know that their thinking pattern, choice, interest and aptitude are all different from their children's. Still, they have to come down to the level of their children remove loneliness in them. Giving them toys would not suffice. At times, they have to act as the playmates of their children. They must provide right kind of encouragement and initiate proper behaviour when they are with the children.

If they really want natural development in their children, it is needful to be with the later and make things happen smoothly.

From the above discussion, it is found that the role of parents is vital in bringing out maximum growth of a child. But it is quite unfortunate that parents do all these without preparation. Even their is no training facility for the parents for this work.

In old times, there were joint families where the grandparents and other elder members would share their experience with the youngers. But now, we do not have that type of family, and parents have to shoulder all the responsibilities of their children. There is no formal training to teach such an important issue in our society.

Cł	neck Your Progress-4:
An	swer the following questions in your own words.
a)	What are the duties of an expectant mother for her child?
b)	What is the need of breast feeding?
c)	Why should a mother be patientful?

6.4 The Role of Teachers and the Development of Children

A few years back, formal education started with Class-I. When a child attains 6 years of age, the parents used to send him/her to a near by school and thus a new life began for the child. But now, particularly in towns and cities, children are sent to nursery schools at the age of $2\frac{1}{2}$ or 3. The concept of pre-primary education has been a popular way, and thus schools are now doing the works which the family used to do. Even in rurual areas, these schools are found. This stage is quite sensitive for the child. So much care should be taken for the mental and emotional development of the children. The responsibilities of teachers at this stage are much more than a teacher of primary stage. While a good and positive behaviour would bring the best in children, at the same time, any type of negativism may yield catastrophic consequence for the children.

In our country, the provision for training of teachers is not free from faults and lacunae. The training does not include any such practical knowledge to know about the nature of children, their problems, and solutions for those problems. But they are the real future of our country and hence should be dealt property.

The following description gives a picture of the responsibilities of pre-primary teachers in nutshell.

(i) Establishing intimacy with the child:

At pre-primary stage, teachers are next to parents for the children. Their first duty is to build the sence of intimacy with children. They should think that school is a second house for the children and for this, they must play their part as perfectly as possible. With a kind and considerate heart they should make the children feel the school as their second home quite naturally.

(2) Respecting the child's nature:

As this stage is quite sensitive, teacher must keep their own behaviour at the most refined level. They should not scold the child before others and should not humiliate in a common class. This kills the self-confidence of a child and generates inferiority complex in it. Hence, the teachers must start giving respect to the nature of the child both inwardly and in expression.

(3) Freeing the child from Extra-tension:

Parents sometimes put much pressure upon their younger children during this stage. This happens due to their high expectation level. They want the child learn every bit of scholastic affair with full sincerity and devotion. But it is unwise to expect this from a small child. Instead of creating a joyful environment for them, they put concepts, rules, principles of subject matter before them. The duty of the teacher is to make the child free from this, and provide it a joyful learning atmosphere. Teachers must keep an eye in this matter.

(4) Arousing a sense of Belongingness:

Sense of belongingness is one of the greatest causes of self-confidence. When a child identifies itself with somebody or with some organisation, this sense emerges. The child must develop a positive attitude towards its school. It should feel proud as a member of the school and do the required activities needed for the school. It should develop a genuine love and respect for the teachers. All these will be possible if the teachers are able to provide love, affection, co-operation to the small children coming to school. And, if these small children feel irritation, separation, fear, tension instead of love and sympthy, then the sense of belongingness would never become a reality.

(5) Initiating Good Habit in children:

Between 3 to 5 years, the effect of experience has a vital importance for the child. Experiences have their greatest impact during this period. Hence, for habit formation this is the perfect age. Therefore, teachers should provide facilities and atmosphere for development of proper health habits among children. It is important to mention that their own behaviour, activities, response to different situations have their impact on these young minds. So, they should not only regulate the behaviour of young children, but also their own behaviour to help the children form right habits.

(6) Physical Development and Role of Teachers:

From birth upto five years, the rate of development is quite high for a human child. Particularly, the physical development of a child depends greatly upon the playful activities and exercise of limbs that a child does during this period. Strength comes, and comes the symbiosis among different sub-systems of the body. This happens if the child engages itself in different healthful activities. Due to physical activities, two prominent principles become spectacular—the need to be active and the need for repetition. Naturally, play and hand work become two important aspects of child's nature. Thus begins play way method. Through play the child is taught the basics of knowledge and skills needed for its future sustenance. Teachers, however, have some important roles in this regard. These are:

- (i) Content is to be selected according to the age, capacity, interest and preference of children.
- (ii) The content is to be so organised that the child will get all the benefits of a natural play side by side will learn its relationship with real life situation.
- (iii) The teacher should proceed from 'simple to complex' order while transacting curriculum content.
- (iv) The school should have a playful atmosphere. Children must get ample freedom to express their potentialities.
- (v) The relationship between the teacher and the children must be cordial and sweet.

 They should respond each other with respect, co-operation, love and sympathy.
- (vi) A friendly and congenial atmosphere is to be maintained in the school so that the child can exercise its independence whenever required.

(7) Mental Development: Role of Teacher

The child starts building meaningful concept through its interaction with the outside world after 2½ years of age. Now its mind becomes the central system to form concepts useful for it in its daily life. We find expansion of knowledge and deeper under standing of the subject during this stage. Its cognitive process becomes active through observation, concentration, memory exercise and their mutual interaction of these three. Through its constant interaction with outer world the intelligence matures and comes deeper understanding.

However, cognitive development takes place through a phase-wise process and each phase has certain distinct features. Jean Piaget, a Swiss psychologist, has divided the whole process of cognitive development into four district phases. These are :

- (i) Sensory-motor stage (from birth to 2 years)
- (ii) Pre-operational stage (2-7 years)
- (iii) Concrete operation stage (7-11 years)
- (iv) Formal operational stage (11-adolescence)

For the teachers of pre-primary education, pre-operatinal stage is important. Because students of this stage come for pre-primary education. Some of the important characteristics of pre-operational stage are given herein.

- (a) The child comes out of its imaginary world and faces the outer world or the natural world
- (b) The child understands the material world, the world of life, flora and fauna and their existence
- (c) The child is more ego-centric at this stage
- (d) It is incapable of reverse thinking
- (e) Children love to imitate the behaviour of their teachers and can do it
- (f) They can reproduce/imitate real life behaviours during their play.
- (g) They can reflect/represent their thoughts through painting
- (h) Language becomes the vehicle of their thought. That is why they make abundant use of language in every activity.

The teachers should take these peculiarities into their minds and deal these children accordingly.

(8) Emotional Development and Role of Teacher:

Fear, Anger, Joy, Grief and Jelousy are called emotions basic to all human beings.

Emotional experience is integral to each and every human being. Difference in feeling and experience is the result of these emotions and how they are used. A child's emotion is different from an adult cognitively, affectively and conatively. With the increase in age and maturity these emotions also change. The process of emotional change over a period of time is called emotional development. Some of the common emotions of pre-primary children are—fear, anger, joy, jelousy, curiosity, love etc.

The basic features of emotion at this stage are:

- (i) Children are emotionally over loaded. They can't control it.
- (ii) The longevity of emotion is very less.
- (iii) The emotions of children change frequently. In a moment they get red with anger and in another moment their joy knows no bound.
- (iv) All successful activities of children are emotion-bound/emotion-governed.
- (v) Emotions can be better channelised through experience and education.

For a balanced development of personality, the role of emotion and its expression is very important. So, the teachers need to take care of their children's emotional expression. They should have a considerate heart towards the emotional demands of children. They must have the capacity to channelise and ameliorate the unhealthy emotions of children and must try to use their emotions constructively. There must be an atmosphere of love and attitude of friendship in them for their young students.

The teachers can do this through play, story telling, dance, music, drama, tour and many other co-curricular activities. Through these activities they can study the emotions of young children and can know how to represent these emotions in the best possible way.

The teachers should remember that the negative emotions like fear, anger, jelousy create negative attitude towards life and society, whereas the positive emotions like love, care, belongingness make this life of children worth living.

The most important aspects of emotion are—security and self-confidence. This comes in a friendly and lovable atmosphere. However, the teacher should give importance on the following aspects:

- (i) Providing security to children
- (ii) Extending helping hand when a child is captivated by a negative emotion.
- (iii) Creating an atmosphere of independence both in school and classroom and school.
- (iv) Accepting and respecting their emotions.

(9) Social Development and Role of Teacher:

Like biological identity, man has a social identity too. When his social identity matures, it becomes cultural identity. Man is single living organism having this identity in the whole biosphere.

In this context, we can talk about the theory of psychosocial development of Erick Erikson. According to him, after birth, the child has two tendencies in it—1d and Ego. Ego is independent by character, and is found to be active from the beginning. In the beginning it remains in a 'conflict-free zone', but with the increase in age it indulges itself with social environment and here comes conflict. Later on it goes on constantly adapting itself with the society and conflict decreases automatically.

It must be kept in mind that the personality development of a child depends upon the ego and its interaction with society. Erickson says that the development of ego and psychosocial conflict travel through four major phases. Each phase has two sub-stages. So, in toto, there are eight stages/phases of psychosocial development. These are given here.

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1st stage—birth to 1 year
2nd stage—1 year to 3 year
3rd stage—3 year to 6 year
4th stage—6 year to 12 year
5th stage—12 year to 18 year
6th stage—18 year to 20 year
7th stage—20 year to 50 year
8th stage—50 year and above
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As far as pre-primary children are concerned, two stages—second stage and third stage—are subject of discussion here. By observing these two stages, preprimary children are to be dealt and educated.

The first stage starts with the conflict of 'faith and disbelief' in the family itself. If children have faith on their parents, they want freedom in the second stage. But the child is to be provided freedom cautiously. This can develop the quality of independence. If the self-activity of a child is minimised, then independence never gets a chance to be developed and the child starts suspecting its own capability. It brings failure for the child. If failure is given more importance, shyness comes. This is called the conflict of freedom versus shyness and suspicion.

In the third stage, the child uses its freedom of independence and language, and engages itself in many social activities. Proper restraint must be exercised by the teacher lest the students develop curiosity and inquisitiveness of beyond control. On the otherhand if they are too much restricted by the teachers, guiltyness develops. This is called try versus guiltiness.

Education must wipe out shyness and suspicion from children's mind. It should expand a child's mental horizon, curiosity and interest, so that, in future we can expect good and productive citizens for our country. If a child suffers from inferiority complex, shyness, suspiciousness and the habit of dependence, then its personality gets a serious check, so also the process of socialisation. In this matter, the teachers must be very careful.

For better socialisation of children certain behavioural cues are to be taken care of. They are: imitation, cooperation, sympathy, empathy, social permissiveness, sharing and decency. These are to be facilitated by the school through various activities.

There are some unsocial behaviours too. These are—the tendency to rebel against the seniors, rude and attacking behaviour, unwanted controlling of younger's behaviour, selfishness, and destructive mentality.

The duty of teachers is to establish a firm foundation of positive behaviours of socialisation and to wipe out the negative symptoms found in children. Then only the child can have a better personality is future. If development proceeds in right direction this yields good result for the individual, for the family and for the society.

Cł	heck Your Progress-5:
An	swer the following questions in your own words.
a)	How can we make the child free from extra-pressure?
b)	Why do children need a better emotional development?
c)	Write two responsibilities of teacher for social development of a child.

6.5 Summary

Parents have a high responsibility in promoting the required growth and development of their children. The development in this respect can be—(i) Physical care and development, (ii) Mental, Emotional and Social development.

Since the beginning of pregnancy, the would be child need proper care. For this, the mother should be careful about her own diet, activity and behaviour. Because, the physical, mental, emotional status of a mother has its direct effect upon the baby who will come in future.

After birth, when the child becomes $2\frac{1}{2}$ to 3 years of age, qualities like truthfulness, independence, encouragement are to be taught to him/her.

The role of teacher is also equally important in this regard. In pre-primary education, teachers do the duties of parents. Thus, they have to take up many responsibilities of family and home. They should establish intimacy with children, give respect to their behaviour, free

them from extra-pressure, encourage them for higher understanding and building of good habits. To ensure a better social development in them is also the duty of a pre-primary teacher.

6.6 Exercise

- (a) Write the answer of the following questions with 150 words.
 - (i) Why an expectant mother should not go for any kind of drug addiction?
 - (ii) Who are the playmates of a two year old child?
 - (iii) How can a teacher build intimacy with the children?
 - (iv) Mention the stages of cognitive development as suggested by Piaget.
- (b) Write answers to the following questions within 300 words.
 - (i) Why is vaccination essential for a baby?
 - (ii) How can a teacher inculcate good habits in children?
 - (iii) Write the role of teachers for physical development during childhood.
 - (iv) What do you mean by social development of a child?

6.7 Answer to Check Your Progress-4 & 5

Check Your Progress-4

- (a) Should not fall ill, be careful while walking, must not take drugs of any kind.
- (b) Cholesterol in mother's milk improves the health of the child and protects him from various diseases.
- (c) Patience of parents help in the development of children.

Check Your Progress-5

- (a) Joyful atmosphere and cordial behaviour of teachers.
- (b) The emotion of children is different from adults. An unbalanced emotional development leads to mental retardation.
- (c) (i) The teacher must encourage the children.
 - (ii) Help in the development of curiosity.

Unit 7 ☐ **Health Education at Pre-Primary Level**

Structure

- 7.1 Introduction
- 7.2 Objectives
- 7.3 The Concept of Health Education
 - 7.3.1 Importance of Health Education for Pre-Primary Schools
 - 7.3.2 Personal and Community Health Principles
 - 7.3.3 Mental Health
 - 7.3.4 Community Health and Hygiene
- 7.4 School Health Inspection
- 7.5 Summary
- 7.6 Exercise
- 7.7 Answer to 'Check Your Progress'

7.1 Introduction

A sound mind resides in a sound body. If a child is not healthy in body and mind then it will be difficult to concentrate on studies. In order to build up sound minds and sound bodies we need to discuss about the science of healthy living, and particularly the importance of health education comes. In our country no systematic efforts are made to make the learners aware of their health and its effect on education and life. It is an important part of today's education to provide essential knowledge of health care. An attempt has been made to provide necessary knowledge—of theory and practice—so that learners can update their knowledge of healthful living.

7.2 Objectives

After the end of this lesson you would be—

able to know what health education is

- able to understand the importance of health education at pre-primary stage
- able to know, understand and apply the science of healthy living—both physical and mental—for personal and social well being

7.3 The Concept of Health Education

Generally, what we mean by health is physical fitness. But it is too narrow to define health in this way. Human life is influenced by his/her social and natural environments. The elements of these two environments have their impacts on the physical health and mental health of a person. With he physique/body is attached the mind of a person; and with the mind are attached 'chetna' and emotions. Hence any disequilibrium found in any of these would ultimately cause unhealthy situation for a person. The concept of health in this context is quite broad. As per the concept of the present experts—"Health is a global state of a person in which he/she can use his/her intellectual, emotional and physical being effectively and perfectly." Hence health education is not a subject of theoretical concept, but of practical utility. Moreover, an individual also uses his/her physical and mental capacity in different social aspects. Therefore personal health is intimately related with social and collective health.

In fact, health education is the efficient utilisation of physical, mental and emotional capacity for personal and collective well being. Along with the theoretical knowledge, one has to be healthful and joyous in the daily dealings of life. This is the key to a healthy life.

Many times both hygiene and health education are used interchangably. But these two are not same. Hygiene is the science of health keeping, health development and knowledge about its facts and principles. On the other hand, how different aspects of hygiene are taught is called health education.

7.3.1 Importance of Health Education at Pre-Primary Level

Generally, those who come for pre-primary education have their ages in between two and half $(2\frac{1}{2})$ years to six years (6years). The physical and mental well being of a child forms the very base of his/her life.

Children at pre-primary level have low immunity level. Their body has to fight with various viruses and bacterias constantly. So they are to be taught some basic facts and

principles of health and hygiene by which it would be easier for them to be in good health. They can use their knowledge of health education in their family and social life too. Side by side, this will help them to have a steady progress in the school itself. The secondary education commission says beautifully about the health habits in the following words—"every student in the school requires to be trained in sound health habits both at school and at home. The instruction should be practical so that he may not only appreciate the value of health education but also learn the ways in which he can effectively maintain and improve his health." As pre-primary education forms the base for primary and secondary level so the importance of health education is even more at this stage.

An individual lives with three entities—physical, mental and social. For the holistic development of a learner, these three facultics would be equally developed. An individual can live happily when all these components—physical, mental and social—are in perfect harmony. For all these reasons health education is important for learners.

7.3.2 Personal and Social Health Principles

When an individual is aware about his personal health status and tries consciously to keep it in good condition it is called personal hygiene. According to B.N. Ghosh—"personal hygiene deals with matters pertaining to the health of individual himself for the maintainance of which the responsibility lies with him alone". Personal hygiene has three important aspects—(i) Awareness about personal hygiene (ii) Development of scientific attitude towards it (iii) Endeavour to improve it.

Objective of Personal Hygiene

The following are some of the important objectives of personal hygiene—

- (i) Health Awareness: one of the main concerns of hygiene is to make the individual aware about his/her personal hygiene. The health of an individual is dependant upon two factors—heredity and environment. Though it is difficult to control heredity, but environment can be made favourable.
- (ii) Development of Enthusiasm: When a learner knows different aspects of health and hygiene automatically, curiosity and interest develops in him/her to know more about it. The attitude also gets a positive change. She/he now thinks of maintaining a sound system of body and mind all through his/her life.

- (iii) Protection of Health: Another important dimension of personal hygiene is not allowing any degradation of whatsoever to body and mind. Then one must try to bring improvement in it.
- (iv) Helping in Adaptation: A physically unhealthy person not only suffers from bodily ailments but also develops inferiority complex about his/her own being. This has a negative effect upon the development of personality. And it may retard one's full fledged natural growth for life time. Knowledge of personal hygiene helps to build up one's image beyond deterioration, and promotes the power of adaptation of individual.

Basic Principles of Personal Hygiene

The major principles of hygiene lies in the formation of good habits. These are:

- a) Habits relating to intaking of food and up keeping of health
- Eat when you feel hungry
- Select food as per your hunger
- Food is to be taken slowly, and with proper chewing
- No subsidiary work at the time of eating
- b) Habits relating to rest and sleep:
- There should be a particular time for sleeping
- Make your bed clean and use mosquito net before sleeping
- No deep thinking before sleep
- Go to sleep at least half an hour after taking food
- c) Habits relating to cleanliness: The following elements need good care—
- Skin —Always take bath on clean and warm water
 - —Do not take bath immediately after you are tired of doing something
 - —Make your body dry after bathing with the help of a clean towel or napkin
 - —Use soft soap for bathing
 - —Always wear clean dress

- Hair —Make your hair dry after bath with a clean and dry towel
 - —Do not add much oil on your head
 - —At least use shampoo once in a week
 - —Take food rich in Vitamin B which gives vitality to hair
 - —Comb your hair twice or thrice a day
- Teeth —Brush your teeth twice daily especially just after sleep in the morning and just before sleep at night
 - —Brush the teeth after taking food
 - —Any food particle between two tooth are to be readily removed
 - —Use salt to protect teeth and gum from harmful bactarias
 - Ear —Do not allow water entering into your ear while you take bath
 - —Clean your ear with soft cloth after you take bath
 - —Close your ear when you anticipate sound with high density
 - —Do not enter pen, pencil or any other hard particles into the ear
 - —Clean ear periodically with the help of a doctor
- Eye —Wash your eyes four times daily with cold and clean water
 - —Use a particular towel for eye washing
 - —Use water if sand or dust particle enters into your eyes, do not stir the eyelids unnecessarily
 - —While reading, the light should be perfect so also distance of book from the eyes
 - —Eat enough green leafs and vegetables
 - —Consult doctor after eye problem
- Nose —Clean your nose daily at the time of bath
 - —Use clean handkerchief if further cleaning is needed
 - —Close the nostrils if foul smell or pollution is found
 - —Do not make unnecessary irritation to the nose
 - —Do not smell too closely of an object of desire
 - —Consult doctor if you feel any abnormality whatsoever

- Nail —Trim your nails periodically
 - —Never allow dusts and muddy things to be stored inside the nail
 - —Clean your hands before eating
 - —Never use teeth to cut nails

Feet—Make the feet dry with clean towel every time you wash

- —Do not allow mud or dust inside nail corner
- —Cover feet with shoes when you go outside
- —If barefoot, walk carefully avoiding pebbles and pins

Daily Health Exercises:

- —Do physical exercise daily
- —Exercise should be practiced in open space
- —Exercise should done preferably in the morning and in the evening
- —After exercise take a small bath or wash your body with clothes

Drinking and Toilet Habits:

- —At least 4/5 litres of water is to be drunk everyday
- —The water should be clean and cool
- —After physical work it is better to take water diluted with small quantity of sugar and salt
- —Always use a particular place for toilet
- —Never procrastinate if you feel to urinate or pass the stool

7.3.3 Mental Health

Human being lives with the help of two basic stuffs-body and mind. Both physical health and mental health of a person are also interrelated. One depends upon the other intimately. Not only that, the outer environment of a person also determines his heavleth—mentally and physically. An indevidual attains a sound mental health when she/he maintains a balance between his own self and the environment.

To live a happy and healthy life one also has to solve the problems she/he faces in a society in a desirable way. The more one adapts with the environment, the better she/he is said to be mentally healthy. So, mental health is that condition of a person which enables him/her to live harmoniously in the environment by adapting to its elements.

Not only the natural environment, but, the social environment in the school is also an important element that helps the learner to maintain mental health. Parents and teachers are the role models whom children follow. So, they should instruct their children to follow health rules, and practice the same sincerely. Their positive attitude towards health and sincere effort in keeping it would definitely improve the health habits of children.

7.3.4 Community Health and Hygiene

Society upholds its continuity through mutual interaction among individuals. Individual and society both depend upon each other and are supplementary. Each individual influences every other individual in a society. As the individual influences the community, so also the community does the same for its members. Likewise, the health of each individual determines the community health and vice versa. Hence, to have a better community health, both individual and community have equal role to play. In this context, Dr.B N Ghosh opines—"when different measures are applied for the well-being of the community as a whole in an organised manner it is known as public Health or Community hygiene". In another way, WHO while defining public health says, "Public Health is the science and the art of preventing disease, prolonging life, and improving health and efficiency through organised effort."

The main target of community health and hygiene is to promote social benefits. The following are some of the benefits—

- i) If a person does a wrong action its effect is equally felt by other members of society. So, it should be nipped at the bud. The objective of community hygiene programme is to make each member aware of the benefits of healthy living and healthy environment.
- ii) Another objective of community hygiene is to teach the rules and principles related to social health.
- iii) The third objective is providing the genuine and latest information about better health and make the citizens aware of their responsibilities.

- iv) To make provision for treatment and care of disease is its another objective.
- v) To control the production and distribution of food, and to evaluate the utility value of food is another objective of community health programme.

The following principles are to be kept in mind in order to fulfill the objectives of community health programme—

- a) To provide quality drinking water to all its members
- b) Investigation of diluted food, banning unhealthy food and punishing the sellers
- c) Making the community lavatory, urinal, and place of garbage disposal clean.
- d) Making provision for light and ventilation for all the houses.
- e) Making provision for periodic health check up and treatment for each school going child
- f) Making provision of community washroom for all its members
- g) To promote good relationship between health department and health centres so that they can work smoothly and collaborately
- h) Promotion of awareness through posters, hand bill and movies relating the health and hygiene.
- i) Increasing the awareness level of people about contagious diseases and taking right actions for protection of diseases.
- j) Making provision of training some of the workers associated with health and hygiene.

Cl	heck Your Progress-6
	struction: Write your answers on the space given below. Match those answers with answers given at the end of the unit.
a.	Define health education.

b.	Write two objectives of personal hygiene.
c.	Why should a child be taught about the process of taking care of teeth?

7.4 School Health Visit

One of the important duties of teachers and of the school is to make regular health enquiries and check up for the students. This can be done in two ways—

- (i) Daily visit by the teacher
- (ii) Visit by the doctors/ health workers
- a) Daily visit by the Teacher:

In a pre-primary class, teacher is one of the nearest souls for young children. Every teacher should see whether the dress, nose, eye, ear, teeth, hands and feet of children are clean and hygenic enough for a better living. Teachers should also see whether the eyesight, hearing ability and teeth of children are functioning perfectly or not. Any type of contagious disease relating to skin and other than it, like, diptheria, influenza, whooping cough etc. are to be dealt with care and caution. Provision should be made so that no student falls prey to such disease. If any one is found out, then she/he is to be readily provided the medical service needed so that others would not be affected by the same disease.

Teachers should also look after the mental hygiene of their students. Many a times, students suffer from the mental maladies like inferiority complex, tension, indifference, jealousy, fear, arrogance etc. These mental diseases cause great harm to their personalities, and hence, teachers should keep a good vigil upon them. They should find out the symptoms and causes of these mental unhealthiness and should try to eradicate the same at the earlist.

Check Your Progress-7
<i>Instruction :</i> Write your answers on the space given below. Match those answers with the answers given at the end of the unit.
i) Mention two aspects of school health visits?
ii) How can the mental hygiene of students be taken care of?

7.5 Summary

Both natural environment and social environment have their influences on the learner. Health education is said to be successful when a learner utilises his/her physical, mental and emotional being for the betterment of social and environmental set up.

Health education takes a vital position during pre-primary stage. This is the base from which a child learns all his/her health habits. So, both the physical and mental health of a learner are to be kept perfect.

The following are the objectives of personal and social health hygiene—promotion of health awareness, encouraging health habits, personal hygiene make up, adaptation to surroundings etc.

For children, it is important to learn and abide by the primary health principles. Some of the important principles are: habits relating to health keeping and intaking of food habits, habits relating to rest, sleep and personal cleanliness. Personal cleanliness includes taking care of skin, hair, teeth, eye, ear, nose, nail and feet. This also includes regular exercises, drinking habits and toilet habits. Besides, to keep the learner mentally fit is also one of the important objectives at pre-primary level.

It is equally important to make the child think of his health habits relating to society and surroundings. Because, the health of the environment affects his personal health. A polluted and disease prone environment will cause great harm for the people. Therefore, the learners are to be taught the principles of community health and hygiene.

The role of teacher is equally important like that of parents for a pre-primary learner. For this, the school should have regular health visits—both by teachers and health workers. This will promote good health habits from the beginning of education.

7.6 Exercise

- a). Write answers to the following question within 150 words.
 - i) What is hygiene?
 - ii) What are the main principles of personal hygiene?
 - iii) Write any three principles of personal hygiene?
- b) Write the answers for the following questions within 300 words.
 - i) Distinguish between health education and hygiene.
 - ii) Why should one take care of nails?
 - iii) What are the drinking and toilet habits to be taught to the pre-primary children?
 - iv) Why is it so essential for the teachers to make health visits?
- c) Write the answer of the following questions within 500 words.
 - i) Why health education is so important at pre-primary level?
 - ii) Discuss the principles of personal hygiene?
 - iii) Mention the importance of community hygiene for the learners at pre-primary level.
 - iv) How can the objectives of community hygiene be best fulfilled?

7.7 Answers to Check Your Progress

Check Your Progress-6

- a) Theoretical knowledge about health
- b) Health awareness and interest in health habits

- c) Bacteria are formed if the food particles between two tooths are not cleaned.
 Check your Progress-7
- a) i) Daily visits by teachers
 - ii) Visits by doctors
- b) Identifying the symptoms and causes of mental ill health and taking suitable measures for their remedy.

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PAPER-6

PAPER-VI

MODULE-A

PROJECT WORK ON LANGUAGE AND ARITHMETIC

1st Half: Activities on Language (25 Marks)

- 1. Reading Cards with Vowel and Consonants.
- 2. Reading Books (Book-let type)
- 3. Reading Cards with 'Sh', 'Ch', 'OO' etc.
- 4. Matching Picture Cards with Reading Cards
- 5. Chart for Jumble words
- 6. Word Making
- 7. Activities in Daily life (Chart)
- 8. One Word-Five Sentences Chart
- 9. Family Chart (Picture—Name—Relation)
- 10. Tree Chart (Identifying Parts & their functions)
- 11. Shapes Chart
- 12. Colour Chart

2nd Half: Activities on Arithmetic (25 Marks)

- 1. Sand-paper figures from 0 to 9
- 2. Addition Chart: Addition of 1 to 9 & 1 to 9
- 3. Basic Addition Chart
- 4. Blank Chart of Basic Addition
- 5. Subtraction Chart
- 6. Blank Chart of Subtraction
- 7. Multiplication Chart
- 8. Blank Chart of Multiplication
- 9. Division Chart
- 10. Blank Chart of Division
- 11 Number of cards and counters

PAPER-VI

MODULE-B

PROJECT WORK ON LANGUAGE AND ARITHMETIC

1st Half: Social and Cultural Activities (20 Marks)

ACTIVITY 1: Songs

[(i) Prayer, (ii) Suitable for National Days, (iii) Suitable for Birth / Death Anniversary of great persons (iv) Folk Songs, (v) Charar

Gan, (vi) Karma Sangeet]

Final Exam. (Any one : 4 marks)

ACTIVITY 2: Drama and Role Playing

ACTIVITY 3: Recitation

ACTIVITY 4: Dancing

ACTIVITY 5: Drawing

2nd Half: Simulated Teaching (30 Marks)

- (i) Skill of Reinforcement
- (ii) Skill of Using Black Board
- (iii) Skill of Using Teaching Learning Materials (TLM)
- (iv) Skill of Stimulus Variation
- (v) Skill of Citing Examples
- (vi) Skill of Using and Producing Questions.

Unit 1 □ **Simulated Teaching**

Structure

- 1.1 Introduction
- 1.2 Objectives
- 1.3 Concept
- 1.4 Features
- 1.5 Skills of Micro Teaching
- 1.6 Skill of Integration through Correlation of Subjects
- 1.7 Skill of Facilitating Child-Centric Learning
- 1.8 Skill of Encouraging Learner's Ability of Enquiry
- 1.9 Skill of Developing the Ability of Observation in Learner
- 1.10 Skill of Integrating Performing Art with Learning Situation

1.1 Introduction

Teaching is a skill based subject where each teacher has to master certain basic skills without which the classroom transaction will not be effective. Different techniques are used to make the teachers acquire these skills. Micro teaching is one such technique quite popular in academic in recent years. This has been initiated by professor Kith Achison of Stanford University in 1961. The complexities of a classroom are lessened by Mastesting these skills. Transaction is also simplified through this technique.

1.2 Objectives

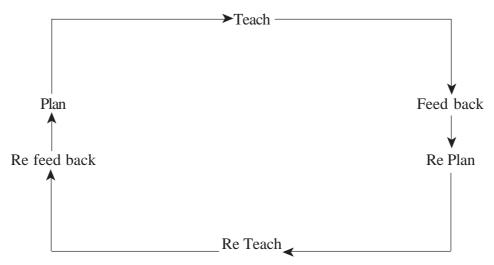
After learning this unit you will be able to:

- state the concept and principles of micro teaching
- explain the importance of micro teaching
- use the skills for developing your own efficiency in teaching

1.3 Concept

Micro teaching is a skill of simplifying classroom transaction process in respect of number of students, teaching time and skill of teaching. It is completely meant for the teachers and their skill development. Here, the number of teachers (participants) is 5-10, the time limit for practice is 5-10 minutes and a single skill is dealt with at a given period of time. Unlike the macro teaching (where teacher deals with real students), micro teaching uses the peer-teachers as the students and observers. In micro teaching, the skills are also simplified. Each skill consists of certain desirable behaviours to be achieved by the teacher which can be explained, controlled, observed and evaluated. As per the teaching objectives, each skill is to be analysed and is to be observed the extent to which it is reflected in the teachers' behaviour or action. After this, when it is felt that a teacher has mastered the skills, these are to be integrated with the subjects so that the transaction never becomes alianated from content reality. For your better understanding a flowchart of micro teaching is given here under.

Micro Teaching Cycle



1.4 Features

The following are some of the features of micro teaching:

(i) **Ideal :** The main ideal/aim of micro teaching is development of skills of teaching among teachers.

- (ii) **Observation:** Each teacher is observed against a skill for a stipulated period of time with the help of a 5-point scale relating to the behavioural outcomes expected. This is shown to the practicing teacher so that she/he can get the necessary feedback and can improve his/her skill.
- (iii) **Environment :** The total environment of micro teaching is simulted and controlled. Here the time limit is 10 minute and the size of the class is 10. Size here means the number of participants (students and observers) which is maximally 10. In the absence of real students the peer-teachers are considered as students. This peer group has to come down to the level of students of primary level while taking part in the programme and side by side give required suggestions to the practicing teacher.
- (iv) **Integration:** At first, the teacher learns individual skills upto mastery level. When all the skills are learnt or mastered, then they are integrated with desired behavioural outcomes in different subject areas. Then only the worth of micro teaching is realised.

1.5 Skills of Micro Teaching

Teaching includes the successful integration of a plethora of skills among which 18 important skills are suggested by experts like Alen and Ryan (1969), B.K. Passi (1986) and Professor Jangira (1996). The five most fundamental skills are dealt herewith. They are:

- (i) Skill of integration
- (ii) Skill of organising teaching-learning process as per the principles of child-centrism
- (iii) Skill of encouraging learners' ability of enquiry
- (iv) Skill of developing learners' capacity of observation
- (v) Skill of integration of performing art with learning situation.

1.6 Skill of Integration

Class: III Sub.: Our Environment

No. of pupils : 5 Unit : Chaar Paas

Time: 5 minutes Baaro Maas Bandhute Bharaa

Name of the Teacher: Sub-Unit: Paribesher Anyanya Praani

Date:

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Behaviour
In our environment we find many helpful	Generally you visit park every afternoon.	To the willows	
friends. Among them are cow, house-lizard, bee, butterfly and grass	What other places do you visit?	To the village	
hopper. A house-lizard lives on the wall and	In the park you find play- things and rocking cradle.		
the chameleon lives in the tree. The grasshopper, bee and	What makes chirping sound in village?	Birds	appropriate example
butterfly live in the garden. Birds live in	What does a bird eat?	seeds and left- out rice particles	
open space.	Can you tell the name of a bird? What does a sparrow eat?	Sparrow	appropriate example
A sparrow eats rice, but bee and butterfly	What have you seen in village?	Cow, goat	proper example
eat honey.	In this context can you establish similarity between/among the subjects you read? Give example.	Geography, Bangla Geography-we can know about the production of crops like rice Bangla-we know many nouns like cow, grass, bird by learning this lesson	Integration with other subjects
	At evening, what do we see on the wall?	house-lizard	taking example from environment

Subject Matter	Teacher's Activity	Students' Activity	Expected Behaviour
	What do they eat?	insects like cockroach	appropriate example
	Name another living being that looks like house-lizard.	Chameleon	appropriate example
	Can you tell the name of a faithful animal?	dog	taking example from environment
	When a dog makes sound, what do we call it?	Bark	integration with other subjects
	Can you give example of two living being that fly?	grasshopper and butterfly	taking example from environment
	Where do they fly?	In the garden	appropriate example
	What do they do in the garden?	suck honey and act as an agent of pollination	taking example
	With what subject do you find resemblance?	with science science-the life cycle of butterfly and process of pollination are learnt in life science	integration with other subjects
	Which one is bigger, grasshopper or butterfly?	Butterfly	taking example from enviornment
	How does a butterfly look like?	Beautiful. It has colourful wings	appropriate example

Subject Matter	Teacher's Activity	Students' Activity	Expected Behaviour
	Name another insect like grasshopper and butterfly.	bee	taking example from the environment
	What do they do with the environment?	do benefit to environment	appropriate example
	There are some living being who help us, what do we call them?	friend	appropriate example
	More specifically, what can we tell them?	friend of environ- ment or environ- ment-friend	-
	What have you learnt from this lesson?	About different animals and insects	generalisation
	What else have you known?	The details of their eating and living?	generalisation

1.7 Skill of Encouraging Child-Centric Learning

Class: IV Sub.: Science

No. of pupils: 5 Unit: Some Important Processes of

Time: 5 minutes Human Body

Name of the Teacher: Sub-Unit: The work of Five Indriyas/

Date: Sense Organs

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
	One of you please come and write on the black board, with which organ we see different things of the world?	One student comes and writes eye	Active participation of learner

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Outcome
	Which organ helps us to see things?	(by discussing with each other) eye	mutual interaction among learners
Human body has five sense organs—eye, ear, nose, tongue and skin.	Which organ helps us to taste things? How is skin useful to us?	With the help of tongue we taste things. We get knowledge of heat and softness of objects through skin	Answering by maintaining continuity Answering by maintaining continuity
Eyes help to see things, ears help to hear, nose helps to smell things, tongue enables to taste objects and skin helps us to feel things.	_	We smell through nose It can be compared with the lense of a camera	maintaining continuity Answering by maintaing
	What brings harm to ears?	High sound (by discussing with others)	Mutual interaction among learners
	The teacher would provide the picture of different organs of human body and would ask the students to say the right one as she/he points to it.	The students will see the pictures and will answer the corresponding picture shown by the teacher	Active participation by the learner
	How can we protect our eye?	We should not work in high or low density lights. we should wash it with clean water regularly.	Answering by maintaining continuity

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
	How do we get smell through nose?	There are some special 'cells of smell' through which the message of smell of objects reach the brain. Then we perceive the smell. (by discussion with each other)	Mutual interaction
	So, how many sense organs we have?	Five—Eye, Ear, Nose, Tongue and skin.	Decision making by learner
	What is the function of sense organs?	Providing knowledge about outside world.	Decision making by learner

1.8 Skill of Encouraging Learners' Ability of Enquiry

Class: Sub.: Natural Science

No. of pupils: 5 Unit: Some important Processes of

Time: 5 minute Human Body

Name of the Teacher: Sub-Unit: The work of Five Indriyas/

Date: Sense Organs

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Outcome
Any living being has the ability to respond to situations happening	When something happens to a living organism it works according to its		

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Outcome
outside as per its level of understanding. It is popularly known as response to stimulus situation.	understanding of physiological system. This is known as response to a stimulus. The developed an organism is the complex will be the process of understanding and responding.		
The more developed an organism, the more complex will be the process of responding.	Do you have any question about this? Well very good question. The most developed animal in human being.	Which is the most developed animal?	Asking question by students
Man/Human being is most complex organism. So, his ability of responding is also more complex.	Very good question. With the help of his five sense organs man responds to the stimulus situation.	With the help of what, man responds to the stimulus situation?	Well measured question.
	The five sense organs of human being/man are—eye, ear, nose, skin and tongue.	What are these sense organs?	Flexibility in questioning.
We feel with the help of our five sense organs—eye, ear, nose tangue, and skin	Very good question. Inside eyes there is		Questions relating to the main theme
Eye—we see the outside world and its activities with the help of eyes	lense, outside things are reflected upon the screen inside the eye. This is just like things happen in		

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
Ear—We hear sounds	camera. Then the	receiving	Outcome
with the help of	message of the image		
our ears.	goes to brain through nerves and we get the		
	concept of image.		
Nose-We can smell	Anything more to		flexibility
the objects with the	know?		in questioning
help of nose	KIIOW:		in questioning
Tongue: The tongue	When the sound comes	How do we	
helps in knowing the	through air it stirs the	hear through	
taste of things we eat.	eardrum. Sound is a	ear?	
C	type of vibration or stir.		
	Anyway, the vibration		
	causes feeling which		
	goes to the brain via		
	neurons. Then we get the		
Skin-With skin we	concept of things we		
can know the heat	hear.		
of an object and			
softness of things.	Do you need any		measured
	further clarification?		question
	There are certain taste	How does	
	sensitive cells which	tungue help in	
	recognise different tastes	relishing taste?	
	and send the message		
	to brain via neurons.		Questioning by
	Then we get the taste of		the learner
	the thing we relish.		
	Good Question! Without	What problem	
	nose we can't smell	will a man have	
	things. More over, we	if he has no	
		nose?	

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
	will face difficulty in the process of inhalation-exhalation. Do you need further clarification in this matter? Very good question! We get the concept or feeling of heat and softness with the help of skin.	How does skin help us?	Question relating to the topic

1.9 Skill of Developing Power of Observation among Learners

Class: III Sub.: Bangla (MT)

No. of pupils : 5 Unit : Aagamanee (Poem)

Time: 5 minutes Sub-Unit: The First Four Stanza

Name of the Teacher:

Date:

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Behaviourer
Before autumn comes,	At what time do you use	During rainy	developing the
nature prepares its	raincoat?	season.	power of
stage beautifully. The	why?	To protect us	observation by the
sweet sunshine, the		from rain.	students
wavering of 'kash'	What else do you use?	Umbrella	observation as per
flower, white cloud			the need
and the sky and the	How is the sky during	The Cloudy rain	**
wind—all welcome the	rainy season?	falls with a pitter	developing power
season. We can know	What season comes after	patter sound.	of observation by
this by going through	Autumn rainy season?		the student
the poem.			

Subject Matter	Teacher's Activity	Students' Activity	Expected Behaviourer
Moreover, during this time goddess Durga comes to earth by the sincere call of her	Now, everybody look the chart I am showing to you. what do you see?	White cloud, green plant and kash flower	developing power of observation by the student
devotees	Name two things which are white in colour. One is found in sky and the other in the field.	We find white cloud in the sky and kash flower in the field	developing power of observation by the student
	The Bengalees celebrate one of their favourite festivals during autumn and we hear the sound of 'Dhak' during this time, can you name it?	Durga Puja	Students' observation
	Now, look at the chart. what is written on it?	Aagamanee	Students' observation
	What do you understand by the term Aagamanee?	The coming of goddess Durga during autumn	observation as per the need
	Here, whom does mother refer to?	Goddess Durga	observaion and reflection of students
	How is the sky during autumn?	Clean	Students' observation
	We do not find rain during autumn, why?	After rainy season comes	establishing casue and effect-

Subject Matter	Teacher's Activity	Students' Activity	Expected Behaviourer
		autumn. Now the black cloud dissappers and the cotton like white cloud is found in the sky. White cloud never brings rain.	relationship by the students
	What other flowers bloom during autumn?	Sheuli flower	students' power of observation
	Tell me the name of another festival that comes in autumn?	Eid	students power of observation and reflection
	What else you see in this Chart?	Bird	Students power of observation
	How does a bird fly?	With its wings	observation as per the need
	What else can fly in the sky except bird?	Aeroplane	students power of observation and reflection
	What kind of sunshine do you find here?	sweet and bright sunshine	observation as per need
	What do you understand by sweet sunshine?	Not so hot not so cold—a type of pleasant sunshine	establishing cause- effect relationship by students
	Except this season, we enjoy sunshine in another season, can you tell the name of it?	Winter	students' power of observation and reflection

Subject Matter	Teacher's Activity	Students'	Expected
		Activity	Behaviourer
	Why do we enjoy sun-	We feel cold	establishing cause
	shine during winter?	during winter.	and effect rela-
		We like sunshine	tionship
		to protect	
		ourselves from	
		cold and make	
		the body warm.	
	Name the song dedicated	Aagomanee	students obser-
	to goddess Durga on the	Gaan	vation and
	eve of comming her		reflection
	father's house		

1.10 Skill of Developing Power of Observation among Learners

Class: III Sub.: Mathematics

No. of pupils : 5 Unit : Chhabir Madyein Aakaar

Time: 5 minutes Khunji

Name of the Teacher: Sub-Unit: Finding shape through

Date: pictures

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
	At first, the teacher will show a chart containing circle, traingle, square, rectangale and will ask the students:		
	What are you seeing here?	A sun and a house	Active participation

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
	Now tell me how many circles do you find?	one	active participation
	How many squres?	Two	active participation
	What is the shape of a circle?	round like the moon	active participation
	Do you know any song relating to moon?	yes ma'm/sir	
	Then sing, the one you know	the learner sings a song "Baansh Baagaaner Maathaar upar"	reflection upon the subject
	Now, let you try to draw the shapes you see by cutting thick paper	The students try to do the activity	platforming creativity
	Do you know any other process of explaining the pictures?	Through dramatisation. Each one will hold a picture and will perform necessary action to make others understand about it.	dramatisation of the subject
	Ok. Then do it.	Ramla-I am a triangle. I have three sides. Priyanka-I am square. I have four sides. All of them are equal in length.	

Subject Matter	Teacher's Activity	Students' Activity	Expected Outcome
		Rupali- I am rectangle. I have four sides. The oppsite sides are equal in length.	- Cuttomic
		Circle-(Pratima, Ramala, Priyanka Rupali)-all will form a circle by joining their hands and will show-This is a	Active participation and reflection about the subject
		snow-This is a circle.	

1.11 Skill of Integrating Performing Art with the Learning Situation

Class : III Sub. : English No. of pupils : 5 Lesson : 2

Time : 5 minutes Lesson's Name : Animal Meeting Name of the Teacher : Today's lesson : Animal Meeting

Date:

Subject Matter	Teacher's Activity	Students'	Behavioural
		Activity	Component
Some wild animals	Teacher shows the waist	Students look at	Encouraging
once decided to have	belt, prepared by white	the waist belt	active
a meeting and the	paper and in which it is	and get excited	participation in the
meeting was conducted	written 'tiger'.	to know that	lesson through
by the lion as he was		they are going to	performances.
the King of the beast.		do some thing.	

Subject Matter	Teacher's Activity	Students' Activity	Behavioural Component
The meeting is participated by lion, tiger, gorilla and polar bear.	Teacher informs the students that they will have to prepare three more waist belt of Lion, Gorilla and Polar Bear.	Students follow their teacher accordingly	
	Now, the Teacher gives Art paper and sketch pens of different colour to each student.	Students will follow the instruction given	Encouraging creativity through performance
	After this the teacher asks the students to write down the names of different animals.	The student will observe.	
The main agenda of the meeting is global warming and destruc- tion of the forest.	The teacher will then show a poster of "Be aware of Global Warming!"	Students aslo prepare similar types of poster like "Save the Earth", "Protect the animals", "Do not destroy the forest".	Encouraging creativity through performance
The problem of global warming is a product of man's action.	Now the teacher will direct the students how to make the posters.	Students follow the teacher.	Encouraging dramatisation of lessons/learning situations.
Men are also poluting water as a result their is a scarcity of food and drinking water.	The teacher moves about and supervises. She offers active support to		

Subject Matter	Teacher's Activity	Students'	Behavioural
		Activity	Component
Man is delimiting the chances of living of other animals on earth through his myopic vision and uncontrolled destruction of animal and plant habits. But But like man, they have the same right of living on earth.	the students those who really need it. The teacher requests the students to wear the waist belts with the name of the animals and mime their actions respectively The teacher tells the students that we all should be aware to save the earth from Global warming.	Tiger (roars): Hellow! I am from India. In our country men are ruthlessly destroying the forests. So, we have now to fight for our living. Lion (roars): This earth is our home too. They must give us a chance to live in it. Gorilla (gibbers): I am from the Congo basin. We also have a similar problem. Our rainforests are vanishing fast. Polar Bear (growls): Global warming melts the rice. It makes the climate warmer. We cannot survive in such conditions. Learners promise to do so.	Encouraging application of the lessons/ learning situations to real life situations.

☐ Lesson Planning on 'Environment of Children' (Pre-Primary Unit 2

Stage)

Name of School:

Today's Lesson—General discussion

on vehicles and their Path

Class: III

No. of Students:

Average Age:

Name of the Teacher:

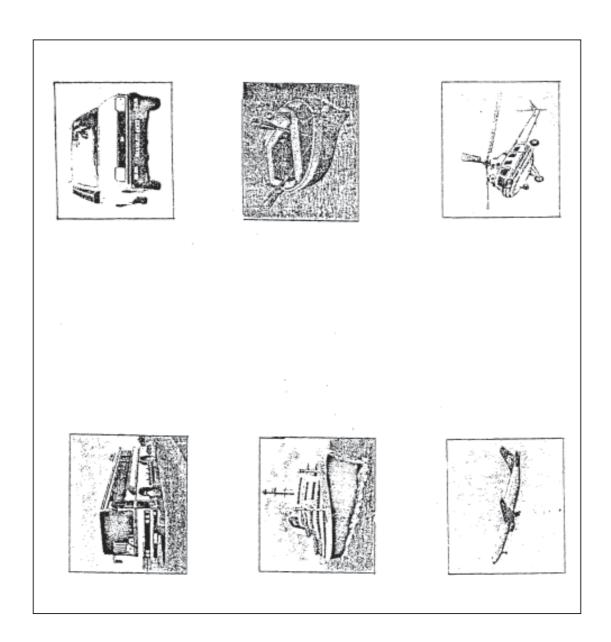
Date:

Practical: Making of rail with the help of match box

Rhyme: Rail Gaadi

		-		
Time	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
10.30 am	Playing	At first the teacher will see	As per the direction of their In a school, all children do	In a school, all children do
to 11 am	. —	ndependently whether all the students	teacher, the students would not come with a calm and	not come with a calm and
		have kept their bags, shoes	keep their bags, bottles and	keep their bags, bottles and undisturbed mind. Many have
		and water bottles in the	shoes on right place. Then	agony and sadness in their
		right place or not. At the	they will start playing with	minds. Through play, these
		time of playing with each	their liking playmates and	mental states are removed
		other, it is the duty of the	toys without creating	and a congenial learning
		teacher to see whether	unhealthy situation, like,	atmosphere is created.
		students fight among	fighting and quarreling.	
		themselves. A smooth and		
		easy going environment is		
		to be maintained by the		
		teacher.		
_				

Subject	Teacher's Activity	Students' Activity	Objectives and Duties
	After playing children feel tired. So, the teacher should give them rest of ten or fifteen minutes to remove their fatigue. As per the instruction of teacher, all students would put their toys in right place (inside the bag, or on the cupboard). Then they will take rest.	As per the instruction of teacher, all students would put their toys in right places (inside the bag, or on the cupboard). Then they will take rest.	As a result of rest the attention and interest of children in learning increases. Then they can read something with interest.
Prayer	After a period of rest, the teacher will ask all children to remain silent, fold their hands and close their eyes. Then she will ask them to sing the prayer song and will sing the same with them. She, while singing, will also see whether all students participate in the activity or not, and whether they sing the prayer perfectly or not. If they commit any mistake, the teacher has to correct them.	As per the direction of the teacher, the students would start singing prayer song by folding their hands and closing their eyes.	Prayer increases the attention and concentration of students upon their studies.
			give them rest of ten or fifteen minutes to remove their fatigue. After a period of rest, the teacher will ask all children to remain silent, fold their hands and close their eyes. Then she will ask them to sing the prayer song and will sing the same with them. She, while singing, will also see whether all students participate in the activity or not, and whether they sing the prayer perfectly or not. If they commit any mistake, the teacher has to correct them.



ime	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
11.30 to	Preparation	After the prayer, the	As per the instruction of	The students will learn
1.40 am		students to go to their	will go to their respective	punctuality and sincerity.
		respective places in line and	places and sit there. They	
		sit on the place meant for each of them.	can drink water or go to bathroom if they feel so.	
11.40 to	General	When all students take their	The students will try to	Providing knowledge about
12.00	Discussion	seats, the teacher starts	answer the questions sitting	vehicles and their types to
		teaching them about vehicles through question-answer technique.	on their respective places.	young learners.
	Vehicles	Q: How do you come to	A: by bus, by tram, by,	
		school?	auto, by rickshaw and by	
			walking	
	Types of			
	Vehicles	Q: Do we find the same		
	according to	vehicles in water to move	A: No	
	path	from one place to another		
		that we use on road?		
	Vehicles ply			
	on road :	Q: Then what are the		
	Bus, Tram,	vchicles used in water?	A: Boat, Ship	

Time	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
	Jeep, Auto, Cycle and	Q: When we want to move fast from one place to another how do we do it?	A ereoplane, Helecoptor	
	Vehicles Plying on Water: Boat, Ship	Now, what do we find? find that the vehicles used on roads do not play on air or water. The same is	The learners will take part in the discussion of the teacher and will	
	Vehicles plying on Air: Aeroplane, Helecoptor	true for water vehicles and for air vehicles.	observe the models	
	Showing models of different vehicles	The teacher will show models of road vehicles, water vehicles and air vehicles to make them better understand the matter.		
	Entering into the specified topic	During long holidays, you go to your uncle's house or a place of tour. If the distance is too long, you do not go by bus or by auto. Then how do you go?	A: by train	

Time	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
		Yes, right. I also go to different places by train.	A: by train	
	Rhyme:	Now, the teacher will teach		
	Kujhik	a rhyme relating to train. She	The students will see	
	jhik kujhik	will use the picture/model of	the rhyme on the chart	
	jhik Chal-	a train and also a chart in	and will listen	
	chhe	which the rhyme 'Rail gaadi'	discussion of the	
	Railer gaadi	is to be written beforehand.	teacher.	
	Chalchhi aamra	Then she will have a small		
	Darjeeling	discussion on the rhyme. It is		
	Chalchhi	of the following type.		
	maamar	Some children are going to		
	Badi.	Darjeeling to their uncle's		
		house by train. They see hill,		
		greeny plants, pleasant		
		sunshine. This makes them		
		happy and joyous.		
	Neel pahade	Now the teacher will teach	The students will listen	
	ghass	the rhyme by dividing it	with attention.	
	paathare megh	into the following steps:		
	o roder belay			
	_			

Time	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
	Manta aamar khusite Aaj Bhaaschhe	1st step: First, she will read the whole rhyme before the students.	The students will listen with attention	
	Megher	2nd step: Then she will teach The students follow the	The students follow the	The students will develop
	Bhelay	the first four lines with action. model/teacher	model/teacher	'Chhanda bodha' or
		3rd step: She will ask her	The students will recite the	rhyming skill. This helps students to be
		students to sing with her	poem. Making required	active physically. This is
		with proper action.	action with the teacher	good for health.
		4th step: Now she will ask	Now they will do so	
		the students to sing the rhyme without the help of	without the help of	Student derive pleasure by
		with proper action and voice teacher.	teacher.	doing group activity and
		without her help.		performing actions.
		The teacher will of course		
		help them sing when they need		
		or will correct if some one		
		commits mistake. In this		
		way, she will teach the whole		
		of the poem.		
12.25 to	Practical work:	Practical work: After the rhyming activity is		
12.55		over, the teacher would tell		
		the students to sit and will		
		give each of them		

Time	Subject	Teacher's Activity	Students' Activity	Objectives and Duties
12.25 to	nractical work·	a collection of four match boxes joined by small paper pieces. She would ask the students to join one	The students would work as per the instruction of the teacher and would	1. They will derive pleasure through hard work
12.55	making of train with the help of match box			will develop. 3. Through physical activity their limbs would get exercised.
		the boxes. The teacher would first do the activity before the children and would ask them to do so individually. Then, she will provide paper sheet to each of them	une train on it.	4. Their patience and concentration will be improved through work.
		and would ask to use right colour needed. The prepared train is to be placed on the path		
	Tiffen	After the work is over, the teacher would ask them to come to any water source (may be a tubewell/tap) and ask them to wash their hands	The students would do so as per the instruction of their teacher and would open their respective tiffin boxes for eating.	By washing with soap, the dirty hand becomes clean. They would also learn the art of eating in a particular place.
		ask them to go to their respective places and open tiffin boxes.		

$Skills: The \ Micro-teaching \ has to \ deal \ with:$

-Skills identified by the authority as most essential for a successful teacher to master. The skill are :

M	icro Teaching Skills	Sub-Skills/Behavioural Components
1.	Skill of integrating	> Striking inter-subject integration with the help of learners.
	knowledge and	> Allowing learners to integrate & eliciting examples of such
	experiences	integration.
		> Helping learners integrate knowledge and experiences
		appropriately through examples.
		> Skills of generalising knowledge/experiences with the help of
		learners in a participatory and interactive class room-situation.
2.	Skill of Facilitating	➤ Ensuring active participation of every learner.
	Child-centric Learning	> Encouraging expression of opinions on specific learning
		experiences/learning outcomes.
		\succ Encouraging inter group and intra-group interaction & peer-
		interaction and teacher-pupil, pupil-teacher etc. interactions.
		Helping in decision making.
3.	Skill of Encouraging	➤ Allowing learners to question/enquire.
	Learners to Enquire	Allowing flexibility in questioning.
		Ensuring appropriateness in questioning.
		> ensuring relevance in questioning.
4.	Skill of Developing	> Exposing learners to observable situations.
	Observation in	> Allowing learners to review and reflect on the observed
	Learners	phenomena (as per the requirement of the situations).
		➤ Allowing learners to relate effects to causes/causes to effects.
		> Allowing learners to apply their observations and thinking on
		similar situations.
5.	Skill of Integrating	> Encouraging active participation in the lesson through
	Performing Art with	performances.
	the Learning Situations	Encouraging creativity through performances.
		Encouraging dramatisation of lessons learning situations.
		> Encouraging application of the lessons/learning situations to
		real life situations.