

Block

3

CURRICULUM TRANSACTION

UNIT 1

Instructional Systems **7**

UNIT 2

Instructional Techniques and Materials **21**

UNIT 3

Learner Support Systems **47**

UNIT 4

Role of Distance Teachers in Distance Education **64**

Expert Committee (Original)

Prof. Satya Bhushan, Chairman
Ex-Director, NIEPA, New Delhi
Prof. Ram G. Takwale
Ex-Vice-Chancellor, IGNOU, New Delhi
Dr. A.W. Khan, Ex-Director,
Communication Division, IGNOU, New Delhi
Prof. V.S. Prasad,
Ex-Director, Distance Education Council
IGNOU, New Delhi

Prof. O.S. Dewal, Ex-Director
Central Institute of Educational Technology
New Delhi
Prof. C.L. Anand
Ex-Pro-Vice-Chancellor, IGNOU, New Delhi
Prof. Bakshish Singh
Ex-Consultant (Distance Education)
University Grants Commission, New Delhi
Prof. P.R. Nayar
Post-Graduate Department of Education
University of Mysore, Mysore

Prof. B.N. Koul, Convenor
Ex-Pro-Vice-Chancellor
STRIDE, IGNOU, New Delhi
Prof. B.S. Sharma
Ex-Vice-Chancellor
Kota Open University, Kota
Mr. Ruddar Dutt (Retd.)
Ex-Principal
School of Correspondence Course &
Continuing Education
University of Delhi, Delhi

Expert Committee (Revision)

Prof. A.W. Khan, Chairman
Vice-Chancellor, IGNOU, New Delhi
Prof. V.S. Prasad
Rector, BRAOU, Hyderabad
Prof. M. Mukhopadhyay
Senior Fellow, National Institute of Educational
Planning & Administration, New Delhi
Dr. Mavis Kelly, Educational Developer
School of External Studies
Univ. of Queensland, Australia

Prof. B.N. Koul
Director, Distance Education Centre,
University of West Indies, Barbados
Prof. M.B. Menon, Chairman
National Open School, New Delhi
Mr. Ruddar Dutt, Ex-Principal
School of Correspondence Courses &
Continuing Education
University of Delhi, Delhi
Prof. P.R. Ramanujam,
Director, STRIDE, IGNOU, New Delhi

FACULTY, STRIDE, IGNOU
Prof. S.K. Panda, Director
Prof. S.P. Mullick (Retd.)
Dr. C.R.K. Murthy, Reader
Dr. Manjula Srivastava, Reader
Dr. Madhu Parhar, Reader
Dr. Basanti Pradhan, Reader
Dr. Sanjaya Mishra, Lecturer

Course Preparation Team (Original)

Course Contributors

Prof. B.N. Koul
Division of Distance Education
IGNOU, New Delhi
Dr. S.V.S. Chaudhary
School of Education, IGNOU, New Delhi
Dr. P.R. Ramanujam
Division of Distance Education
IGNOU, New Delhi

Dr. Santosh Panda
Division of Distance Education
IGNOU, New Delhi

Unit Design

Prof. B.N. Koul, Division of Distance Education
IGNOU, New Delhi

Unit Design and Course Coordination

Mr. K. Murugan
IGNOU Regional Centre, Madras

Language Editing

Dr. V. Ranga
Division of Distance Education
IGNOU, New Delhi

Course Preparation Team (Revision) (2001)

Course Contributors

Prof. B.N. Koul, Division of Distance Education
IGNOU, New Delhi
Dr. S.V.S. Chaudhary
School of Education, IGNOU, New Delhi
Dr. P.R. Ramanujam
Division of Distance Education
IGNOU, New Delhi
Dr. Santosh Panda
Division of Distance Education
IGNOU, New Delhi

Dr. (Mrs.) Manjari Gopal
Balmaki College of Education
University of Delhi, Delhi

Review Expert

Prof. M.B. Menon
Director, School of Education, IGNOU

Course Revision and Editing

Prof. Santosh Panda
Prof. S.P. Mullick
Dr. D.B. Damle
Dr. Rampelli Satyanarayana
STRIDE, IGNOU, New Delhi

Language Editing

Ms. Meera Sagar

Programme Coordination

Prof. P.R. Ramanujam, Director
STRIDE, IGNOU, New Delhi

Course Coordination

Prof. Santosh Panda
STRIDE, IGNOU, New Delhi
Dr. Rampelli Satyanarayana
STRIDE, IGNOU, New Delhi

Course Revision (2013)

Revised By

Dr. Rampelli Satyanarayana
STRIDE, IGNOU, New Delhi

Unit 3

Dr. Rampelli Satyanarayana and
Dr. Anita Priyadarshini
STRIDE, IGNOU, New Delhi

Unit Design and Course Editing

Dr. Rampelli Satyanarayana
STRIDE, IGNOU, New Delhi

Language Editing

Dr. Rampelli Satyanarayana and
Dr. Anita Priyadarshini
STRIDE, IGNOU, New Delhi

Expert Committee (Revision)

Prof. Sukumaran Nair, Former VC,
Mahatma Gandhi University, Kottayam
Prof. O.S. Dewal, Former Founding Director,
NIOS, New Delhi
Prof. Sudha Rao, NUPEA, New Delhi
Prof. Chandra Bhusan
CIET, NCERT, New Delhi
Prof. Santosh Panda, (Convener) Director,
STRIDE, IGNOU, New Delhi
Prof. K. Murugan, TNSOU, Chennai
Prof. S.V.S. Chaudhary, SOE,
IGNOU, New Delhi

FACULTY, STRIDE, IGNOU

Prof. P.R. Ramanujam
Prof. C.R.K. Murthy
Prof. Madhu Parhar
Prof. Basanti Pradhan
Prof. P.K. Biswas
Dr. Rampelli Satyanarayana
Dr. Sanjaya Mishra
Dr. Ashok K. Gaba
Ms. Mythili G.
Mr. Tata Ramakrishna
Dr. Rose Nemiakkim
Dr. Satya Sundar Sethy

Print Production: Mrs. Promila Soni, Section Officer (Pub.), STRIDE, IGNOU, New Delhi

August, 2014

© Indira Gandhi National Open University, 2014

ISBN-

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Indira Gandhi National Open University.

Further information about Staff Training and Research Institute of Distance Education (STRIDE) and the Indira Gandhi National Open University courses may be obtained from the University's office at Maidan Garhi, New Delhi-110068 or at www.ignou.ac.in

Printed and published on behalf of the Indira Gandhi National Open University, New Delhi, by Prof. C.R.K. Murthy, Director, STRIDE, IGNOU, New Delhi.

Laser typeset by Mctronics Printographics, 27/3 Ward No. 1, Opp. Mother Dairy Booth, Mehrauli, New Delhi-30

Printed by :

MDE-416 : CURRICULUM DEVELOPMENT FOR DISTANCE EDUCATION

Course Outline

Block 1 : The Field of Curriculum

- Unit 1 : Curriculum: The Concept
 - Unit 2 : Foundations of Curriculum
 - Unit 3 : Curriculum: Issues and Trends in Distance Education
-

Block 2 : Curriculum Development

- Unit 1 : Towards Curriculum Development
 - Unit 2 : Curriculum Planning
 - Unit 3 : Curriculum Designing
 - Unit 4 : Curriculum Implementation and Evaluation
-

Block 3 : Curriculum Transactions

- Unit 1 : Instructional System
 - Unit 2 : Instructional Techniques and Materials
 - Unit 3 : Learner Support Systems
 - Unit 4 : Role of Distance Teachers in Distance Education
-

Block 4 : Curriculum Evaluation

- Unit 1 : Concept of Curriculum Evaluation
 - Unit 2 : Techniques and Tools of Evaluation
 - Unit 3 : Construction of Evaluation Tools
 - Unit 4 : Evaluation of Distance Education Sub-systems
-

Block 5 : Curriculum Development Experiences

- Unit 1 : Tertiary Education
 - Unit 2 : School Education
 - Unit 3 : Technical and Vocational Education
 - Unit 4 : Non-formal and Continuing Education
 - Unit 5 : Materials Production
 - Unit 6 : Media and ICT in Teaching Learning: IGNOU Experiences
-

LET US BEGIN HERE

The course on the theme of ‘Curriculum Development for Distance Education’ is divided into five Blocks. This is the first one. It comprises three units in all. A schematic representation of the design of the unit is given below to facilitate your access to the content presented here.

UNIT X*

X.0 Objectives

X.1 Introduction

X.2 Section 1 (Main Theme)

x.2.1 Sub-Section 1 of Section 1

x.2.2 Sub-Section 2 of Section 1

.....
.....
.....

Check Your Progress

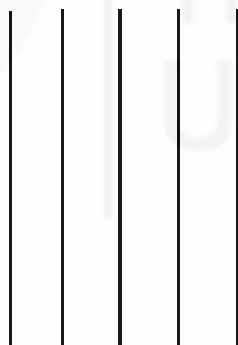
X.3 Section 2 (Main Theme)

x.3.1 Sub-Section 1 of Section 2

x.3.2 Sub-Section 2 of

.....
.....
.....

Check Your Progress



Answers to Check Your Progress

X.n Let Us Sum Up

* ‘X’ stands for the serial number of the unit required.

As the scheme suggests, we have divided the units into sections for easy reading and better comprehension. Each section is indicated distinctly by bold capitals * and each sub-section by relatively smaller but bold upper and lower typeface. The significant divisions within sub-sections are in lower typeface. The significant division within sub-sections are in still smaller but bold** upper and lower typeface so as to make it easier for you to see their place within sub-sections. For the purpose of uniformity, we have employed the same scheme of ‘partitioning’ in every unit throughout the course.

We begin each unit with the section ‘Objectives’. It articulates briefly what we have presented in the unit, and what we expect from you once you complete working on the units.

In the last section of each unit, under the heading, 'Let Us Sum Up', we summaries the whole unit for purposes of recapitulation and ready reference.

***BOLD CAPITALS**

Relatively smaller but bold

**** still smaller but bold**

Besides, we have provided self-check exercises under the caption 'Check Your Progress' or 'Self-check Exercise' at a few places in each of these unit which invariably end with possible answers to the questions set in these exercises.

What, perhaps, you would like to do is to go through the units and jot down important points as you read in the space provided in the margin. **(Broad margins in the booklets are there for you to write your notes on.** Make your notes as you work through the materials. This will help you prepare for the examination as also in assimilating the content. Besides, you will be able to save on time. Do use these margins.) This will help you prepare for the examination as also in assimilating what you have been reading in the unit, answer the self-check exercises and the assignment questions and easily identify the item(s) to be clarified.

We hope that we have given enough space for you to work on the self-check exercises. The purpose of these exercises will be served satisfactorily if you compare your answers with the possible ones given at the end of each unit after having written your answer in the blank space. **You may be tempted to have a furtive glance at the possible answer(s),** as soon as you come across an exercise. But we do hope that you will overcome the temptation and turn to possible answers (which are not the best answers necessarily) only after you write yours.

These exercises are not meant to be submitted to us for correction or evaluation. Instead, the exercises are to function as study tools to help you keep on the right track as you read the units.

On an average, each block will have at least one or a part of one assignment. At times an assignment may expect you to work through more than one unit to prepare you responses. You have to send your assignment responses to us for assessment and comments. In all, you may have to work on one assignment per course. Assignments are sent separately, and are changed every year.

We suggest the following norms be strictly practiced while you are working through the assignments.

- Write your roll number legible as indicated in the Programme Guide.
- Before you put down anything in words, assimilate what you have read and integrate it with what you have gathered from your experience to build you answer.
- Make the best use of the block and the additional reading materials for diligently working through the assignments.

BLOCK INTRODUCTION

The purpose of this block is to provide us with introductory knowledge in the area of educational evaluation in general and curriculum evaluation in particular. We have designed the block in such a way as to focus on skill orientation/ application orientation rather than on knowledge/theory building. The crux is that this block intends to help us acquire the skills/knowledge in order required to gain useful insights in to the process of consumption and production of evaluation tools and techniques. As the block addresses itself to quite diverse groups of clientele it is not unlikely that much of what has been presented might sound quite familiar to some of you. For others, the block may provide things which are new or unfamiliar. However, we should state here that we have pitched the information at a level that will cater to your needs – irrespective of the category implied above. All of us are involved in evaluation activities everyday– whether we realize it or not – most of which perhaps do not come under the category of educational evaluation. But the fact remains that, we do evaluate things around us. However need to get down to the business of evaluation at a professional level. And this is precisely the rationale behind this block. Admittedly, we have not covered the whole gamut of evaluation – neither was this our intention. Nevertheless this block contains such relevant themes as the concept, the tools, of evaluation etc. There are four units in this block focusing on evaluation in education. In unit 1, we have discussed in detail the meaning of and the terms associated with curriculum evaluation. In the process, we have also presented the types and approaches and functions of curriculum evaluation. Unit 2 attempts to give us a comprehensive picture of different techniques and tools used for evaluating a ‘situation’. This unit, thus, aims at giving us useful insights in developing relevant tools for carrying out evaluation. (Incidentally, the information provided may also help you choose your tool for collecting data for your project work.) Further, this unit specifies the curriculum evaluation techniques most appropriate for determining the achievement of the objectives set. In unit 3, **we have discussed four stages of evaluation of activity, all the four stages has its chaining linkages and its importance with its implications.** In the fourth unit, we have discussed the evaluation of distance education sub-systems i.e. assessment of student performance, course evaluation, evaluation of instructional materials, students support services and staff development. Besides, **we suggest you to make a link with MDE-415 materials where you will be acquainted with excel and SPSS package as an effective tool for analysis of research data.**

Mail us

At the end of this block, we have provided a feedback questionnaire. Please fill it after completion of this block and send it to us. Your feedback shall be highly useful for future revision and maintenance of the course. Also please take note of the time you devote in studying this block. May be you complete this block after 4-5 sittings. But for every sitting, kindly note the time separately so that you can categorically say how much time you took to read this block. You can send the feedback questionnaire by post or you can e-mail the same to: stride@ignou.ac.in . In the e-mail, please mark in the subject areas – FOR COURSE COORDINATOR-MDE-416. You may also contact for any difficulties related to the programme in general and MDE-416 in particular.

UNIT 1 INSTRUCTIONAL SYSTEMS

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 A Systems Approach to Instruction
 - 1.2.1 Instruction
 - 1.2.2 Instructional Systems
- 1.3 Instructional Systems Design (ISD)
 - 1.3.1 Characteristics of ISD
 - 1.3.2 Designing Instructional Systems
- 1.4 Learner Characteristics
- 1.5 Instructional Media
- 1.6 Evaluation: Processes and Outcomes
 - 1.6.1 Continuous Evaluation
 - 1.6.2 Terminal Evaluation
- 1.7 Let Us Sum Up
- 1.8 Answers to Check Your Progress

1.0 OBJECTIVES

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

- describe an instructional system;
- define instructional systems design (ISD);
- explain the concept and characteristics of ISD;
- relate the stages in the design of instruction;
- describe the characteristics of learners with varying learning abilities;
- describe the role of learning materials and some techniques in instructional systems; and
- design your own instructional system when required.

1.1 INTRODUCTION

In Block 1 we have looked at the basics of curriculum and in Block 2 we have studied various approaches to curriculum planning, designing and evaluation. In essence, in the first two Blocks we have examined the concept of curriculum and its foundations and understood the various aspects of curriculum planning and development. In this Unit the emphasis has been shifted to the transaction of the curriculum and we will here look into some theoretical aspects of instructional systems. For this purpose, instructional systems design, and experiential learning have been considered in detail.

Further, we have discussed in this Unit the characteristics of learners in terms of teaching-learning transactions.

1.2 A SYSTEMS APPROACH TO INSTRUCTION

Let us first try to understand the word “instruction” before examining any other issue.

1.2.1 Instruction

In a natural environment, an individual interacts with the components of the environment in an informal and unorganized manner, leading to unanticipated or unspecified learning. However, attaining pre-specified and desired learning would depend upon the provision of a controlled environment for the individual to interact with. Instruction involves the provision of a controlled environment with which the individual can interact, leading to the attainment of certain pre-specified learning outcomes or instructional objectives.

Hence, instruction may be considered as the process of providing a controlled environment consisting of various components with which individuals interact and gain experience, leading to their attaining certain prespecified learning outcomes.

Instruction has been defined as the directing, teaching and/or imparting of knowledge. The word is commonly used to mean ‘guidelines’ or a set of directions to carry out some procedures to attain pre-specified goals, e.g. the instruction attached with any home gadget or appliance, the instructions of an army commander to his soldiers, etc.

In an educational context, the term ‘instruction’ is used for all the experiences that are organised to bring about the learning process. You may ask why we do not use the term ‘teaching’. Well, there is nothing wrong in doing so, provided we understand ‘teaching’ in the broadest sense of the term. It should not be taken only to mean the ‘experiences’ provided by the teacher directly. The possibility of the word ‘teaching’ being taken in a narrow sense always remains. Hence, educationists generally feel that ‘instruction’ is a better word for expressing/ including all the experiences and activities organised for bringing about learning.

1.2.2 Instructional Systems

A system has a number of components operating together in an interrelated and interdependent manner towards the attainment of objectives of teaching-learning process. The effective combination of the main components of instruction, which includes the identification of objectives, careful planning and implementation, and testing of the outcomes, is called the instructional system.

As mentioned earlier, instruction involves the interaction of an individual with an organised environment, leading towards the attainment of certain instructional objectives otherwise called as behavioural changes. In other words, when students with a certain type of behavioural pattern (and cognitive structure) go through the instructional system, they come out with a changed pattern of behaviours (and cognitive structure). Quite simply, we can say that the students enter the instructional process with certain behaviour, which can be termed ‘entry behaviours’. They are expected to achieve certain terminal behaviours which can be termed ‘expected terminal behaviours’. The instructional process is designed in such a manner as to achieve the expected terminal behaviours. We may thus say that the expected terminal behaviours are what we intend to achieve in students through an instructional process and that the actual terminal behaviours are what they actually achieve. The difference between the expected and actual terminal behaviours is due to a lack of effectiveness in the instructional process. Thus, the differences between the expected and the actual terminal behaviours would act as feedback. In this model, the entry behaviour is the input and the actual terminal behaviour is the output of the instructional system.

Check Your Progress 1

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this Unit.*

What is meant by an instructional system?

.....

.....

.....

.....

.....

.....

.....

.....

1.3 INSTRUCTIONAL SYSTEMS DESIGN (ISD)

Instructional systems design is a four-phase process which consists of stating specific learning objectives, planning effective ways to realise them, implementing them and testing them for purposes of feedback and improvement.

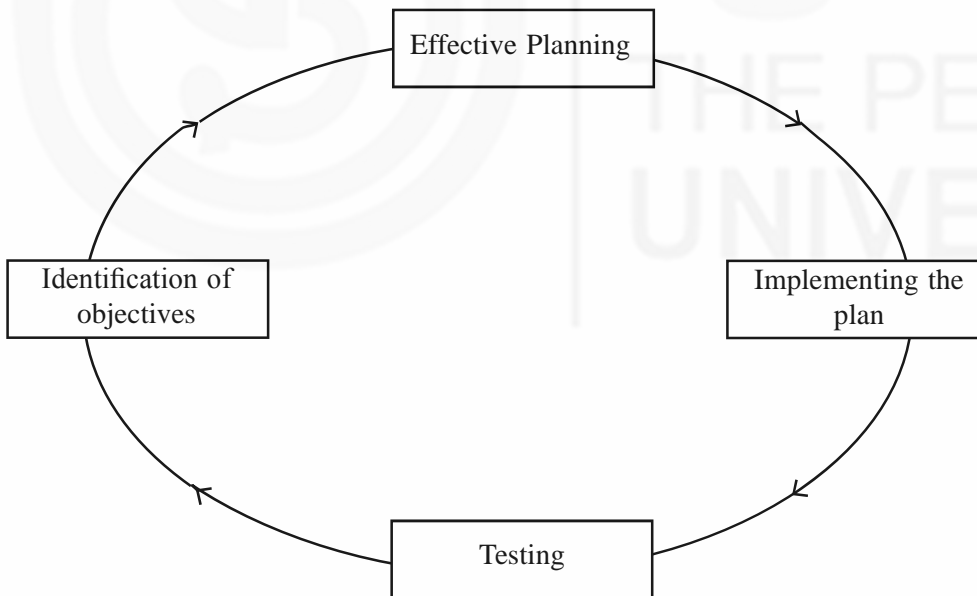


Fig. 1.1: Instructional Systems Design

Here the term ‘design’ refers to purposeful planning which aims to present a structure of learning activities and to provide a scheme in which means to achieve pre-defined objectives are specified. Based on this explanation, we may say that instructional design refers to a systematic and purposeful approach to planning and organising means for the realisation of predetermined learning objectives. In essence, instructional systems design is an approach that helps to improve the quality of instruction through the systematic planning of teaching-learning activities which include print material, computers, media-use, etc. The following assumptions are used as a base for the designing of an instructional system:

- i) No two learners are identical in behaviour and abilities. They differ in their prior knowledge/experience and in their learning characteristics, i.e. learning style and learning rate, level of motivation to learn, etc.
- ii) Educational methods and procedures have certain merits and defects. All of them do not have the same potential for all objectives and all learners. Different levels of objectives demand different instructional designs.
- iii) Pre-requisite experience and practice of complex learning activities can increase motivation and prevent the over-emphasis of low level objectives.
- iv) Exposing learners to a wide range of subjects, ideas, attitudes, etc. is not a substitute for the identification of relevant content and related skills and competencies.

Having clarified the use of term 'institutional systems design', we shall now turn to its characteristics.

1.3.1 Characteristics of ISD

An instructional systems design describes the process of specifying and producing particular learning situations in order to effect desired changes in the behaviour and cognitive structure of the learner. They provide a highly specific and detailed account of teaching procedures which are based on empirically verified or verifiable principles. The process of learning thus becomes a scientific, controlled, and goal-directed activity.

To elaborate this further, an instructional systems design:

- specifies learning outcomes in terms of the learner's observable performance;
- selects and arranges stimulus situations to be displayed to the learner;
- specifies the conditions under which a learner's response is observed;
- specifies criteria for acceptable performance; and
- modifies the conditions when the learner's responses do not correspond to the specified outcomes.

In essence, the characteristics of an instructional systems design are:

- planned arrangement of instruction, instruments and procedures;
- inter-dependent arrangement of its elements, i.e., instruction, instruments and procedures; and
- goal direction, i.e. an instruction systems design has a goal or goals for which it has been designed to effect student learning.

In our discussion, you may have noted that we have not included 'teacher' in the systems design. This is because of the fact that there are many types of learning situations where information is transmitted through media, other than the teacher, for example through books, programmed texts, television/radio programmes, computer discs and so on.

Having identified the important characteristics of an instructional systems design we should also touch upon the stages that one should follow in designing an instructional system.

An instructor can work as a designer who is responsible for identifying the objectives and developing the procedural plan of the system. But he/she can perform this function only after obtaining a thorough understanding of the principles and techniques of teaching-learning systems design.

1.3.2 Designing Instructional Systems

Though the designing process is complex, the guidelines being discussed here will help us analyse most of the possible alternatives to arrive at a solution that achieves the pre-determined instructional objectives most efficiently.

The system designing process consists of the following three stages:

- i) analysing system-requirements;
- ii) designing the system; and
- iii) evaluating system-effectiveness.

We shall briefly discuss each stage in the given order.

- i) **Analysing system-requirements:** At this stage we should identify the objectives to be achieved at the end of the teaching-learning process and consider the available resources and possible constraints in achieving them. The learning objectives are specified and stated in terms of learning outcomes so that we can empirically verify the learner's achievement.

In analysing the available resources and possible constraints, we should collect information about all the variables that might affect the performance of the system. These variables may be:

- The environment in which the learning system will operate. (The course content and objectives of each course should suit the overall aim/purpose of the programme.)
- The resources in terms of available human power, instructional materials, equipment, audio-visual components and facilities. (Information pertaining to them will help the designer to plan the system more efficiently.)
- The constraints in terms of time, autonomy of learner/teacher, cost, etc. (This will help the designer work out a compromise design by accommodating the constraints.)
- A detailed description of learner characteristics. (This includes the number of learners to be enrolled, their entry behaviour, their academic, personal and professional background, their aspirations and learning study skills, etc. This information will help the designer conduct a realistic needs assessment and, using it as a base, choose appropriate learning objectives and relevant subject matter).

Let us now consider the second stage.

- ii) **Designing the system:** After specifying the objectives and analysing the resources and constraints, the designer generates possible alternative solutions and selects the best one. Simultaneously, the designer reviews each element at every phase of development and checks whether the objectives are being achieved or not. Based on the ongoing analysis, the errors or omissions are corrected. Thus the systems design includes procedures for progressive self-correction.

Having looked at the first two stages, let us now take up the final one.

- iii) **Evaluating system effectiveness:** After providing the initial design plan, the designer should examine his/her work to find out whether or not the material and procedures chosen will assist the learners in realizing the objectives. This will help ensure that each learner has enough information and guidance to benefit and learn from the design developed.

What are the significant points that we can draw out of our discussion in relation to the design and use of the instructional systems design? They are:

- i) System objectives and resources should be specified before decisions are made about design.
- ii) The process of systems design should provide scope for developmental corrections.
- iii) The process of systems design should be instructive.
- iv) An instructional system should operate most efficiently when all the components assist one another in achieving the learning objectives.
- v) An instructional system is designed to operate compatibly with other systems.
- vi) No system component or procedure can be modified without having an effect on other components or procedures.

The instructional inputs adopted must take into account the influence of various learning characteristics which highlight inherent individual differences. We shall take up this issue in the next section. But, before that, here is a self-check question for you.

Check Your Progress 2

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this Unit.*

Define the term instructional systems design and list the stages in the system designing process.

.....

.....

.....

.....

.....

.....

.....

.....

.....

1.4 LEARNER CHARACTERISTICS

Some characteristics of the learners play an important role in implementing the outcomes of instruction in both face-to-face and distance modes of education. Some of the most relevant characteristics are:

- i) individual differences;
- ii) readiness;
- iii) motivation; and
- iv) study conditions.

These are all factors which influence learning of an individual in both face-to-face situation and those of learning at a distance.

- i) **Individual differences:** The effectiveness of instruction is influenced by several kinds of individual difference among learners. Important differences are

a) cognitive strategies, b) rate of learning, c) learner entry level capabilities, d) cultural background of learners, their age, sex and so on. Entry capabilities/behaviours are the basis on which instruction strategies are planned and implemented. These behaviours are assessed while framing a curriculum.

According to Skinner (1953), individual differences in learner behaviours are the result of the organism's genetic endowment, and reinforcement. Thus, Skinner believed that defective genetic endowment and/or defective reinforcement contingencies in an individual's experience result in a failure to acquire a variety of learned behaviours.

Learners differ in their ability to comprehend, memorize, retain and apply behaviours, possess different receptivity to information and knowledge, and they also display different learning outcomes. Some learners will engage themselves in learning activities enthusiastically, while many will be more or less passive, and so on.

It is possible; however, that some of the problems that arise due to individual differences can be overcome. We can produce materials, both print and non-print, which are self-instructional in nature and provide individual tutorial/academic counselling or group discussions, etc. at the study centers. Obviously, this entails setting up study centers across the country to establish some face-to-face interaction or other personal contact programmes to overcome the difficulty.

- ii) **Readiness:** According to behaviourists, readiness for learning comprises the behavioural repertoire that the learner brings to the learning situation. Readiness for learning is an important factor in designing instruction. The concept of readiness interpreted as age, or level of maturation, is not acceptable to Skinnerian. According to them, the age or development level of an individual is of little help in determining the presence or absence of readiness (Bell-Gradler, 1986). Both Skinner (1953) and Gagne (1977) conceptualized readiness as pre-requisite skills.

In cognitive terms, 'readiness' could be interpreted as:

- the learner's capacity to comprehend and assimilate new information/knowledge; and
- the learner's ability to construct logical cognitive structures (Piaget, 1973).

A positive sense of self-worth and personal identity generally helps the learners commit themselves more readily and fully to the learning situation.

- iii) **Motivation:** Educators consider motivation to be one of the major conditions for effective learning, since it gives direction and intensity to behaviour. This viewpoint is especially applicable in cases of adult and lifelong learning. Adults look for learning experiences to satisfy specific life needs like getting a new job, promotion, social status and so on. Theories of learning also focus on environmental factors that may lead to learner motivation such as arousing the learner's attention, providing appropriate rewards, producing self-instructional, learner-oriented, meaningful and interesting learning materials. Some theorists consider the learner's failure or success as the primary source of motivation.

According to Piaget (1973) the main source of motivation is the need for equilibrium. Needs may be physiological, affective or intellectual. For some, need can be explained as a state of mental disequilibrium. Individuals may have some ambitions which they seek to achieve and that motivates them to do their best. Motivation can be intrinsic, i.e., satisfying the urge to seek knowledge for self-esteem, pleasure etc. For example, the scholar who employs all his/

her energies in reading literature or a researcher who spends most of the time available in the laboratory and so on. It is possible that many of the motivated learners who gain the highest score at a particular stage may not have a previous record of academic success either in school or in post-school education.

What appears to make the difference is the high level of commitment, motivation, identification of suitable tasks, awareness of the benefits of acquiring competency, etc. The value of the learner's motivation to learn is very evident among those who study through a distance mode.

A study conducted in West Germany (Kahn and Cropley, 1986) found that the differences between face-to-face and distance teaching were largely in terms of their impact on the learners' psyche.

One such difference lay in the fact that distance learners have clearer and more differentiated thinking about the reasons for undertaking the course in question. That is, they select an academic course consciously and hence possess a high level of both intrinsic as well as extrinsic motivation, which results in higher success rates.

- iv) **Study conditions:** As seen from the nature of distance education, the distance learners generally find less time for their studies since they are only part-time students. They are more frequently confronted with their job, household and social obligations. Besides, their isolation from both the institution and from their peers seems to have impact on distance learners, who mostly depend on their own resources and motivation, and work in a setup that suits their tastes. Such study conditions ask for high quality instructional materials based on the principles of programmed instruction.

Information on learner characteristics will influence the starting point of the materials which are being developed, the level of language adopted by them, and the style of the examples and case studies provided in them.

Let us pause here and recall what we have studied so far in this Unit.

In Section 1.3, we have defined the term instructional systems design and described its components. Having done so we have looked into the varying learner-characteristics and concluded that to effectively meet the needs of distance learners, we need instructional materials of a good quality.

Now we shall discuss what we mean by instructional materials. In distance education, print and non-print media like audio/video cassettes constitute instructional materials. However, the extent to which each of these is used for purposes of effective teaching/learning depends on the course-contents, the institution and so on. By implication, dependence on the use of each medium varies from one institution to the other and one course to the other. However, we shall here take up the audio/video and human-element components.

1.5 INSTRUCTIONAL MEDIA

As a result of the phenomenal advances in technology an increasing number of learners encounter various forms of it in their day-to-day life. The process of familiarization with information technology is reinforced by an educational system in which the mass media are becoming an important component of curriculum planning and implementation.

Technological changes have their own impact on education and the use of media has brought some radical innovations in many ways, particularly in teaching learning systems. We consider these changes as a means to transform and enhance the activities of educational institutions, in particular those focused on

by higher education. Printed texts, broadcast television and radio, audio and video cassettes, computer programmes, CD-ROMs, Internet etc. are some of the instructional media used in education today. However, throughout the practice of distance education in India and elsewhere in the world printed texts have remained paramount in importance. Nevertheless, the use of media in teaching and learning at a distance is the most significant pedagogical development. Media provide greater opportunities for in-depth thinking, self-pacing and revision. Its form and use has to be identified in the early stages of curriculum planning and development.

In selecting the medium of learning, we need to at least consider the two following factors:

- i) **Learning objectives:** For instance, if the objective is affective, visual media may be most suitable. But if the objective is cognitive, the printed word will probably be more effective. For the teaching of skills face-to-face contact or viewing a television programme will be ideal.
- ii) **The form of knowledge to be imparted:** Each discipline has its unique concepts, logical structure, method of enquiry, etc. For example, history depends on the availability and interpretation of evidence. Physical sciences, on the contrary, require the observation of phenomena, questioning, hypotheses, experimentation and confirmation/rejection of evidence. The choice of the medium should depend on the nature of the discipline/subject we intend to teach.

The advent of live satellite-telecast systems has added a potentially powerful communication tool for the use of distance educators and learners. Such systems, when integrated with a well-designed distance education service, can enhance learning by fostering increased verbal and visual encoding, permitting immediate interaction with the teacher and providing a chance for affiliation with other learners. In Figure 1.2, we have given you a diagrammatic representation of how media interact with the learner, subject matter and the teacher.

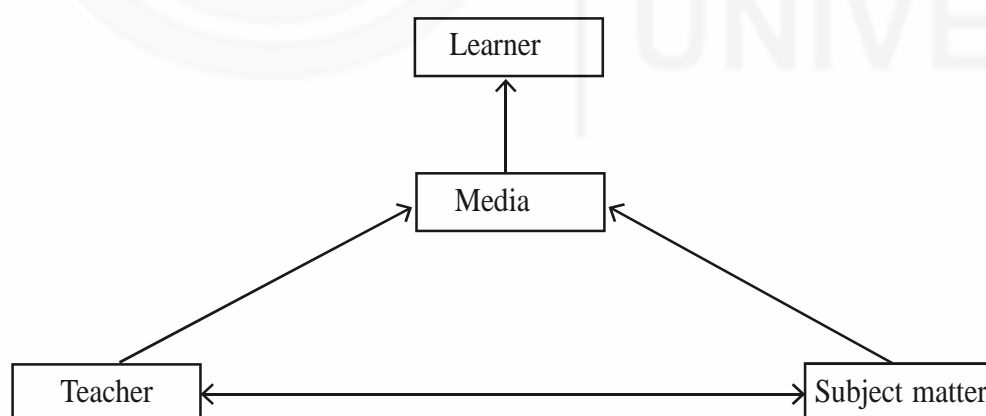


Fig. 1.2: Learning Through Media

We have dealt with the use of media in the teaching-learning process in detail in Course **MDE-418**. As a detailed discussion of the use of media is redundant here, let us take up the human element in distance education.

Face-to-face contact: Higher education traditionally uses the library for research and reference purposes.

In distance teaching, dependence on library services is reduced to some extent by making self-instructional materials and supplementary readings available to the learners. Face-to-face contact however has become a very important component in satisfying the learners. In the distance mode of teaching and learning, study centers at various localities take care of academic and learner-based difficulties.

It is also desirable to motivate the learners to successfully establish personal rapport with the distance education institution represented by academic-counsellors and other learners. Moreover, at a higher level of education, distance study should be truly communicative in character rather than being a process of only providing study materials and comments on the learners' work. These functions can be served effectively through face-to-face contact sessions, and synchronous media interactions.

Furthermore, for certain kinds of learning (surgery, for example) where the learner has to acquire some type of psychomotor skills, non-contiguous communication alone is not enough. Even in the case of teacher training the trainees are expected to put the theory (which they have learnt at a distance) into practice in the classroom.

We have just talked about the instructional systems design, which is mostly dictated by pre-determined instructional objectives and the need for variety in instructional media to suit a wide range of learner characteristics. We presume that you are already familiar with the different aspects of classroom teaching. These are further reinforced in Unit 2 of this Block. Hence, we will not be talking about it here; what are important to us at this stage are the processes and outcomes of evaluation.

1.6 EVALUATION: PROCESSES AND OUTCOMES

Having talked about instructional systems design and various teaching/learning techniques in the previous sections, we shall discuss in this section the evaluation processes in terms of teaching/learning system. Before we discuss the topic under consideration we should clarify what we mean by the term 'evaluation'. Evaluation is not merely assigning grades to learners. It is a continuous process of acquiring and processing information in order to improve one's learning and to assess decisions made in designing an instructional system. If we analyse the above statement we easily notice that it has three important implications for the entire teaching learning system. They are as follows:

- i) Evaluation is a continuous process, and not a onetime performance-measurement, affected at the end of a course/programme. It starts at the stage of curriculum development and continues until the instruction ends.
- ii) Evaluation process is goal-directed. It is aimed at finding ways and means to improve learning and thereby to achieve learning objectives more effectively and more efficiently.
- iii) Evaluation requires the use of accurate and appropriate measuring instructions to collect information for taking decisions about the quality and operation of education.

It is clear that in designing an effective learning system, one of the earliest steps we need to take is to prepare a comprehensive evaluation plan, which should be developed soon after the learning objectives have been formulated. This practice will help us to:

- determine whether the objectives are attainable or need revisions before we start designing the instructional system;
- collect data/information in a form that suits our purposes adequately and at a time when it is available, otherwise the opportunity to collect specific information may be lost; and
- have sufficient time to test the effectiveness of a design.

A word of caution

In our discussion on evaluation, we have not laid any special emphasis on evaluation in distance education. However, it should not be difficult for us to draw the relevant inferences and apply them in the context of distance education. In the present discussion, we shall take up a few relevant items for discussion here, to provide coherence.

In sub-sections below, we shall look into the following two types of evaluation which are used in the context of distance education.

- continuous evaluation; and
- terminal evaluation.

We shall discuss them in the given order at some length.

1.6.1 Continuous Evaluation

As the expression indicates, here we are concerned with evaluation as a continuous process which is indispensable during the teaching-learning activities. We use the following two devices to provide feedback to the learner through continuous evaluation.

- Intext questions:** These include self-check questions, exercises and activities for the learner. The questions are built into the learning materials. The learners work on these questions on their own, and are not required to submit the answers to these questions to the teacher/institution. For purposes of immediate feedback, model answers to these questions are usually presented at the end of the study unit. One of the main purposes of presenting these questions in the learning materials, therefore, is to provide feedback to the learners as to how much content they have grasped or how many objectives they have achieved, etc. Intext questions are, usually, objective type or very short answer-type questions. The questions provide the learners with an opportunity to apply the knowledge gained after working through the content, to judge their comprehension, and to provide for practice or drill for the retention of information. Besides, these questions help the learners to remain on the right track, sustain their interest and promote motivation.
- Assignment questions:** This is one of the important means for continuous assessment of the learners' performance. An assignment is a set of questions which the learners work on and submit to the institution or to the academic-counsellor for his/her comments and award of grade. An assignment thus functions as a tool to:
 - a) initiate pedagogical interaction between the learner and the teacher;
 - b) reinforce learning;
 - c) provide feedback to both the distance institution/teacher and the distance learner;
 - d) assess the learner's progress on a continuous basis; and
 - e) break the wall of isolation between the learner and the teacher.

Depending on the nature of the feedback to be given to the learner, two types of assignments are used in distance education. They are:

- i) **Tutor marked assignments (TMAs):** As the term indicates, the assignment responses are to be evaluated by tutors/academic-counsellors. In TMAs, the question is to find out how well the content has been understood. TMAs generally consist of essay type, projects and practical questions.
- ii) **Computer marked assignments (CMAs):** Unlike TMAs, the CMAs are evaluated by computers (corrected by optical mark reader - OMR). In most cases CMAs supplement or complement TMAs. The main function of CMAs is to test the actual knowledge of the learner. CMAs consist of a number of objective type questions. In this way, CMAs have a wider coverage of the content taught than TMAs, which assess the selected objectives of the instruction.

It should be clear by now that the main function of continuous evaluation is to provide feedback to the learner and the distance education institution about learner-performance, the effectiveness of the learning materials and of the teaching arrangements.

Having touched upon continuous evaluation, we shall now look into terminal evaluation.

1.6.2 Terminal Evaluation

This includes the term-end examination (TEE). Term-end examinations are directed towards an assessment of the level of learning outcomes of a course/programme. They explore the link between what a learner is expected to learn and what has actually been learnt. In terminal evaluation of learning outcomes we seek answers to the following:

- the terminal objectives achieved by each learner;
- proportion of students in achievement of certain levels of learning objectives; and
- the instructional procedures that need to be retained and those to be modified (Davis, et al. 1974).

Assigning grades: The most important purpose of terminal evaluation is to provide a base for the assigning of grades. Grading is both an academic and administrative procedure for classifying learners and reporting their level of performance after they have completed a course/programme as also for certification. It has become a type of academic currency for inter-change between educational institutions and the community and is an end-product measure. Each learner is categorized in terms of his/her level/amount of learning in relation to other learners.

Grades are represented either by letters or numbers. There are several ways of translating test scores into grades. For example:

Number grades: In this scheme the test scores are expressed in terms of standard number grades, i.e., 7, 6, 5, 4, 3, 2, and 1 or 5, 4, 3, 2 and 1 depending on the point scale we choose to use.

Letter grades: In this scheme the test scores are expressed in terms of standard letter grades, i.e., A+, B+, B, C, D and E, or A, B, C, D and E, depending on the point scale we choose to follow.

Each grade (number or letter) has a notional value. (Consider Table 1.1)

Table 1.1: Notional value of Grades: An example

Grades		Notional Value
Letter	Number	
A	5	Excellent
B	4	Very Good
C	3	Good
D	2	Satisfactory
E	1	Poor

Each institution takes its own policy decision to have a specific grading system. For example, it could be a 5-point scale (as given in Table 1.1), or a 7 point scale, and so on.

The learner who fulfils all the requirements of the course and completes the programme successfully is awarded the degree.

A word of caution

Let us conclude this Unit with a word of caution. You would have noticed that in section 1.6, we have not talked about the evaluation of a programme or course. This is so because we have already written about it in Unit 4, Block 2. Besides, we have not talked at length about item-preparation, evaluation in general etc., as we have devoted a full Block to 'evaluation', i.e. Block 2, MDE-411 in the Post-graduate Diploma Programme in Distance Education. In this section, we have touched upon what is relevant for our immediate purposes in relation to the teaching-learning transaction.

1.7 LET US SUM UP

In this Unit we have:

- defined instructional systems design as a process of formulating specific learning objectives, planning effective means to realise the objectives specified, and evaluating them for feedback;
- listed basic assumptions that form the base for designing an instructional system and pointed to the characteristics of ISD;
- discussed instructional media while emphasizing that media use in distance education is one of the most significant pedagogical developments today; and
- highlighted two important student-evaluation processes usually used in distance education, i.e., continuous evaluation and terminal evaluation, and referred to Unit 3, Block 2 for details about programme evaluation.

1.8 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

An instructional system is a combination of inter-related and interdependent components like instructional objectives, planning and implantation of instructional strategies and evaluation of instructional outcomes. The strength of an instructional process lies in the rigorous process of increasing the entry level capability of the student to the terminal capability.

Check Your Progress 2

The term ‘instructional systems design’ can be defined as a process of formulating specific learning objectives, planning viable means to realise the specified objectives and evaluating them for feedback, in order to improve the system.

There are three stages involved in the systems designing process. They are:

- a) Analyzing of the system-requirements;
- b) Designing the system; and
- c) Evaluation of the system-effectiveness.



UNIT 2 INSTRUCTIONAL TECHNIQUES AND MATERIALS

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Learner-Centred Techniques
 - 2.2.1 Personalised System of Instruction
 - 2.2.2 Flexi-study
 - 2.2.3 Distance Learning
 - 2.2.4 Programmed Learning
 - 2.2.5 Computer Assisted Learning
 - 2.2.6 Individual Project
- 2.3 Group Learning Techniques
 - 2.3.1 Tutorial
 - 2.3.2 Seminar
 - 2.3.3 Group Discussion
 - 2.3.4 Group Project
- 2.4 Experiential Learning Techniques
 - 2.4.1 Discovery Learning
 - 2.4.2 Learner-Centred Instruction
 - 2.4.3 Simulation Technique
 - 2.4.4 Role Play
 - 2.4.5 Case Study Technique
- 2.5 Teacher-Centred Techniques
 - 2.5.1 Lecture Method
 - 2.5.2 Demonstration Method
- 2.6 Instructional Materials
- 2.7 Let Us Sum Up
- 2.8 Answers to Check Your Progress

2.0 OBJECTIVES

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

- explain teacher-centred, student-centred, and group-learning techniques of instruction;
- discuss experiential learning techniques; and
- use any one or a combination of these techniques for effective teaching-learning purposes.

Having set out our objectives, let us now take up, for detailed discussion, the various techniques of instruction.

2.1 INTRODUCTION

In the previous Unit, we have talked about the instructional system, i.e., the teaching-learning system in general and the instructional systems design in particular. In this Unit, we shall be extensively discussing various instructional techniques that are an integral component of any instructional system. An instructional system is designed to achieve one or multiple objectives. These objectives are achieved through a combination of various methods/approaches/techniques which include the use of media. A combination of these techniques and materials employed to achieve a pre-stated objective, is what we call teaching learning strategies.

2.2 LEARNER-CENTRED TECHNIQUES

In this instructional system, the learner plays the pivotal role in the teaching-learning process. Figure 2.1 is a diagrammatic representation of the instructional system underlying the learner-centered approach to teaching-learning.

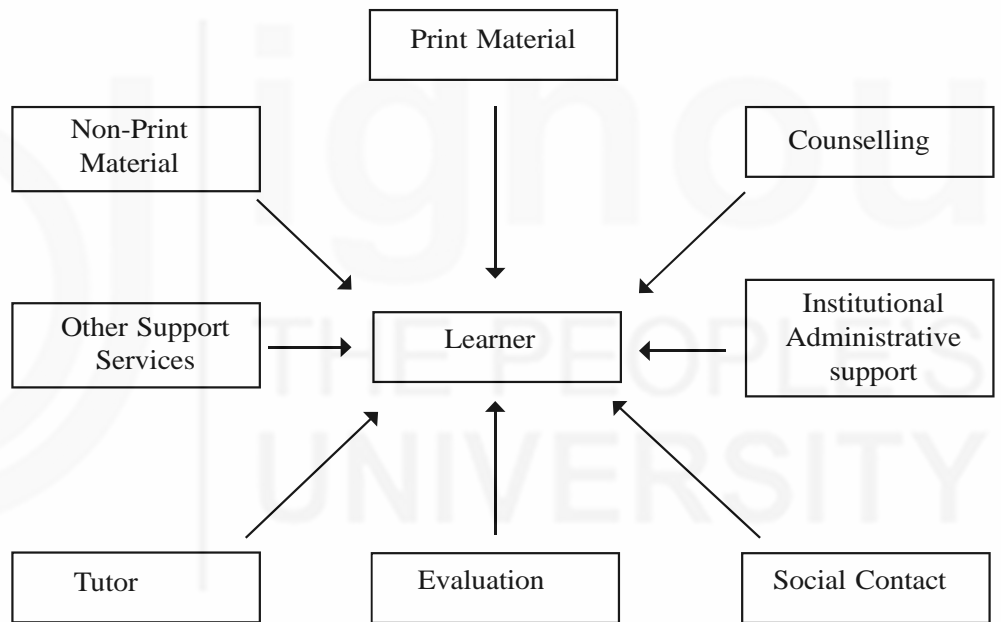


Fig. 2.1: Learner-Centered Instructional System

In a learner-centered system the focus is on the individual learner, and the various system components are geared to help the learner to achieve his/her learning objectives. In this sense, learning becomes a completely individualized affair. However, this individualization varies from one learning situation to another. The situation of a student facing a learner-centered approach in a conventional system is very different from that of a student in a situation, though classroom attendance is not regular, the learner may use individualized learning facilities provided within and outside the institution whenever he/she needs them. These teaching-learning systems operated to meet the needs of those learners who cannot attend regular classes because of various social or academic reasons. The learners in this system receive self-instructional print and non-print materials. Besides, they get tutorial/counselling facilities either at the local study centers or through correspondence, or both. Before we proceed further, please pause here and work out the following exercise:

Check Your Progress 1

Note: a) Space is given below for your answer.

b) Compare your answer with the one given at the end of this Unit.

Write in about 10 lines how the role of a teacher in a learner-centered system of teaching-learning is different from that of his/her counterpart in a teacher-centered system.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Having acquainted ourselves with the learner-centered system in general we shall now discuss the following important specific learner-centered teaching-learning techniques:

- personalised system of instruction;
- flexi-study;
- distance learning;
- programmed learning;
- computer-assisted learning; and
- individual project.

Let us take up each one of these in the given order.

2.2.1 Personalised System of Instruction

In this system, instruction is individualized. Let us take one particular example and discuss it.

F.S. Keller, in the late 1960s, in the United States, developed a personalised system of instruction, called the Keller plan. In this plan, the course materials consist of a number of small chunks of information called units. Each unit has its own learning objectives and the learner is supplied with a study guide that suggests a number of means to achieve the stipulated unit-objectives. The units supplied to the learner are necessarily self-instructional in nature. Besides these, the learner uses the text books and supplementary notes suggested in the study guide. A course unit may contain preset assignments; work on exercises, slides and models that help the learner to proceed smoothly through the course. Course tutors are attached to learners who can contact them whenever necessary and discuss any problem encountered in the units. To complete one unit, an average learner has to put in roughly one week's time; and variations are allowed for different types of learners with a varied pace of learning.

The learner works through the course-units one by one, and depending on his/her convenience he/she sits with the tutor for purposes of clarification. When it is

felt that the learner has achieved the learning objectives of a particular unit, he/she requests a test that examines his/her mastery of the unit. It is important to note that the learner can proceed to the next unit only when he/she is declared qualified at a stipulated level. In the Keller Plan, mastery learning is stressed, so a learner has to achieve eighty to ninety percent marks to pass the test and move on to the next unit.

Besides the self-instructional units, the study guide and the tutor, a learner may also listen to lectures specially meant to introduce the course, etc., and conduct laboratory experiments, if the course requires them. However, essentially the Personalised System of Instruction (PSI) is based on the principles of independent study, individualized learning and self-pacing.

The Keller Plan has been modified many times since its formulation. The modifications are in the areas of test-scheme, peer-group teaching, etc. This system of personalised and independent learning has proved useful in the USA in medical and science subjects at the higher education level.

2.2.2 Flexi-Study

Flexi-study is a local-specific system of learning which is another important and popular student-centered technique of instruction. This combines both correspondence and tutorial support in a local college/institution. A learner takes on the individualized learning materials through correspondence and attends the tutorial/counselling sessions in the local college/institution as and when required depending on his/her convenience. Besides the correspondence and tutorial support, the local institution provides a range of resources, viz., language laboratory, learning resource centers, non-print media, library facilities and other administrative support. The learners sit for examinations when they feel they are ready to do so. This type of individualized study is especially practiced in the United Kingdom in areas of 'Community Adult Education' and 'Further Education'. Open learning programmes are effectively designed and used to meet the special educational and training needs of those who reside in remote areas in the countryside. Because of various socio-academic and political-economic reasons these potential learners are unable to attend formal educational institutions. (Such learners are found in different settings in all countries.) Therefore, the curriculum that goes into the learner-centered educational programmes is designed in such a way as to suit the needs of a particular locality. Usually, either an industrial firm or a local educational institution is given the tasks of curriculum development, administrative provision and the provision for tutorial and other facilities. These tasks are supervised and coordinated by a Central Unit.

This method of self-study in a locality largely meets the needs of continuing and recurrent education and training. The learner is more free to proceed in the learning continuum and to achieve the individual learning objectives.

2.2.3 Distance Learning

Those of you who have gone through the Post Graduate Diploma programme in Distance Education and/or other courses through the distance mode can reflect on the entire experience and recognise the essentially learner-centred nature of the programme which supports individualized study. In the early stages of correspondence education only print materials were used, but distance education has benefitted from technological growth and now utilises multi-media learning strategies. The use of the multi-media approach enables the system to provide as much support as possible even to isolated distance learners. The self-instructional print and non print materials coupled with two-way communication through assignments, letters and other means like the telephone and synchronous media

communications, help effect individualized learning. Though most of the learning transactions take place at a distance, local study-centre facilities are available to some extent through which extra support is given to the learners. In essence, every attempt is made to remove or reduce the barriers to learning, and to provide possible extra support to the learner who mainly studies through self-instructional print materials. In distance education therefore a learner:

- studies the specially designed self-instructional materials;
- proceeds at his/her own pace;
- may attend the local study centre for tutoring, counselling, library facilities, and audio video programmes;
- submits assignments for evaluation and tutor comments that clarify some of his/her doubts, or for establishing an academic rapport, breaking isolation and providing motivation; and
- takes an examination when/she is confident of having mastered the content.

The courses in distance education are usually modular in nature. A learner obviously than proceeds through different modules. (It is possible that examinations may not be made mandatory for the claiming of a diploma/degree, particularly in the case of self-enrichment programmes where a learner goes through the course without aiming at any kind of certification.) Large scale innovations in the practice of distance learning have been possible with the establishment of open universities in various countries. These innovations have provided opportunities to the socially disadvantaged population to further their access to higher education.

2.2.4 Programmed Learning

The term 'programmed learning' refers to a procedure of self-instruction which uses an instructional sequence in which the content to be learned is presented in a series of small steps, arranged in a logical sequence. The onus of learning, however, is completely on the learner. To facilitate self-learning, programmed instruction materials are designed so as to give various kinds of intellectual, emotional and psycho-motor experiences to the learner in a controlled situation through a variety of devices like booklets, machines, teacher, etc.

Based on his principles of 'operant conditioning', Skinner developed teaching machine to effect learning. The text material that accompanies the teaching machine is known as programmed instruction. And it has become a part of the new instructional technology for learning. It has been one of the most popular and effective innovations for individualized and assured learning, due to the following reasons:

- i) The content is broken into small consumable information chunks making it easily accessible to the learner. Each of these chunks of information is called a 'frame'. The trainer is required to go frame by frame, depending on his/her performance on the objective-type questions tagged onto each of the frames.
- ii) For each of the questions asked feedback is given. (This enables the learner to cross-check and self-evaluate his/her performance.) This information about the result helps the learner to proceed to further learning activity. If his/her answer is correct, the learner is motivated and feels satisfied. If the answer is wrong, he/she is directed to read the text or a part of it again.
- iii) Programming demands the active participation of the learner in the learning activity. Naturally, this helps the learner sustain his/her motivation.

- iv) Programming provides, by and large, an opportunity for individualized learning and self spacing. This principle is based on the fact that every learner is different from the other and has unique capabilities and requirements.
- v) Continuous monitoring of learner-performance/progress is available. Testing is carried out in the light of the weaknesses of both the programmes and the learners.

Having looked into programming in, general, we shall now discuss two important types of programming.

Types of Programmes

The two types of programming are:

- i) Linear programming; and
- ii) Branching programming.

Let us touch upon both of them in the given order.

- i) **Linear programming:** In linear programming, all the learners read and respond to the same frames. The sequence is linear in that there is a single path for all the learners to follow. The learner is bound to proceed from one frame to the other sequentially and to complete the programme.



Fig. 2.2: Linear Programming

As a rule, the content is presented in a logical sequence, proceeding from the simple to the complex. One question, or a set of questions, is put after each frame or after each level of difficulty. The learner responds to each question and proceeds till he/she achieves the pre-specified instructional objectives. The content is so arranged that the learner gets the right amount of practice at each level before he/she encounters the more difficult and abstract content. Obviously, therefore, in linear programming, the selection and repetition of questions, and the criteria of shifting the difficulty level are the important parameters we have to keep in mind while presenting content in a linear sequence.

One of the important characteristics of linear programming is the appropriate use of ‘prompts’ to elicit the correct or required responses from the learner. The ‘prompts’ are supplementary stimuli, hints or assistance that help the learner come up with the correct answer(s). The ‘prompts’, however, do not tell him/her the answer, and are gradually weaned away as the learner progresses to the level where he/she is able to respond correctly without their help. Nevertheless, the supply of ‘prompts’ is increased or ‘restricted according to the requirement of the learner’.

It should now be clear to us that one of the important reasons for using prompts in linear programming is to eliminate the learner’s errors. Despite the prompts provided, if the learner does not answer correctly, the programme is considered to be faulty and the difficulty level is such to be incorrectly selected. In such cases corrective measures are taken.

- ii) **Branching programming:** As the term itself indicates, a branching programme provides more than one path to follow. Like the linear programming, if the learner responds to all the questions correctly, he/she proceeds from one step to another with any interruption. On the other hand, if the learner makes an error or answers wrongly, he/she is directed to follow another path known as the supplementary path which gives him/her remedial instruction.

Let us illustrate it with the help of the following figure:

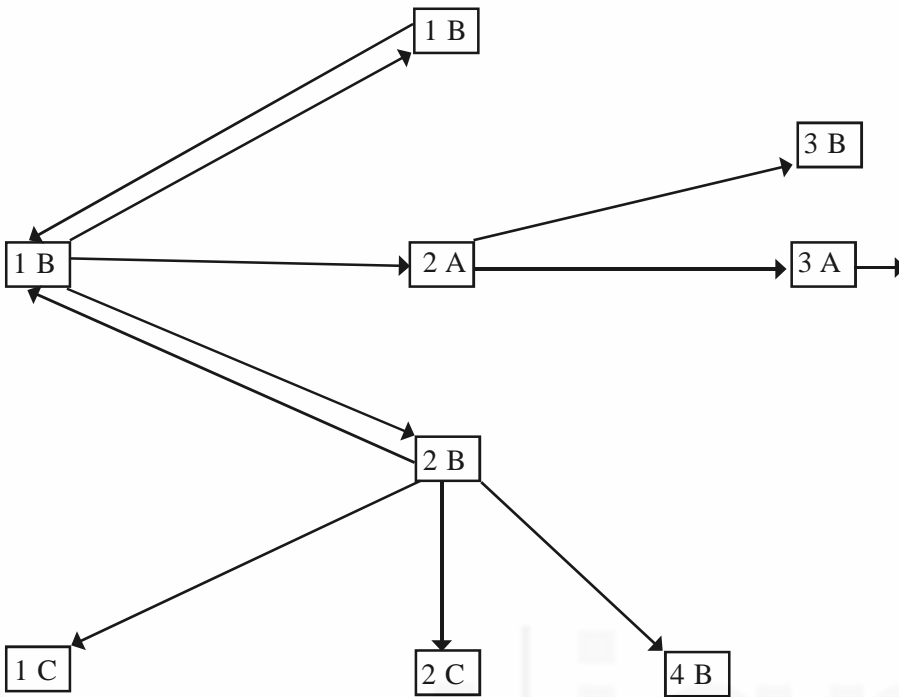


Fig. 2.3: Branching Programming

As Fig. 2.3 indicates, the learner begins with frame 1A. He/she reads the information presented in the frame and answers the multiple-choice questions. The instructions provided in the frame will tell him/her what has to be done next.

Let us elaborate on this. If the learner's answers are correct, he/she will proceed on to the next frame i.e., 2A in the figure given. Supposing the answers are incorrect, the remedial frames (i.e., 1B or 2B in the figure), have to be studied again. Depending on the instructions in frame 1B or 2B the learner will return to frame 1A, and begin afresh.

The learner will carry out this kind of activity from frame to frame until the predetermined objectives are met. It is essential here that we see the difference between 'linear' and 'branching' programming. From Figs. 2.2 and 2.3, we can easily deduce that branching programming presents much more information at each step. This is so because its frames are longer and each of them will comprise three or four paragraphs of moderate length. Besides, what is important is that the branching model allows errors in order to use them as building-blocks in the process of learning.

Let us clarify this.

In 'branching' programming, the learners are expected to answer, at the end of each frame, multiple-choice questions. In other words, they choose from among the given alternatives. The process of answering the given alternatives is, in effect, one of selection. On selecting the correct response, the learners are presented with additional information. If they have not got the correct answer they are directed to go to the remedial material which explains why they are wrong. In a linear programme, on the contrary, the students supply the answer i.e., they supply a missing phrase, word, etc. The 'branching programme', therefore, has an edge over the 'linear' one, particularly in the context of remedial instruction, since it allows for individual differences, and does not force the weaker learner's pace nor does it oblige the bright learner to slow down his/her pace.

A word of caution

What we have studied in sub-section 2.2.4 should not have given rise to a fallacy that 'branching' is a research-based improvement over the 'linear' programme. In fact, they are based on two different lines of thought. The former is based on the art of teaching and the latter on the science of learning. The conclusion is that we should not be misled into thinking that the 'branching' programme is better than the 'linear' one. They should be accepted as two different approaches to the production of materials. In short, we need to combine the best of both.

2.2.5 Computer-assisted Learning

The developments in information technology have already affected the field of education both inside and outside the classroom. The computer, as an important information device, has not only extended the role of the teacher but has also individualized learning and increased learner freedom.

The computer can store, process and retrieve information as and when required. In the process of learning, a computer performs all these functions, and thereby helps an individual to be an independent learner. In computer-assisted learning (CAL), the computer helps a learner by indicating whether or not a response, given by him/her while interacting with it, is correct. If the answer is correct, the learner proceeds to the next step; if it is incorrect he/she is advised to redo the exercise. Besides this, it can make learning more individualized by taking into account the needs, characteristics, skills, aptitudes, and pace of an individual learner. Instead of one-way communication in teacher-centered techniques, CAL provides two-way communication, and in the absence of a teacher simulates lively interaction between the learner and the learning package. Such interaction mainly consists of monitoring of and providing feedback for individualized learning.

There can be many forms of CAL. However, here we shall discuss the following three important situations in which a computer can help a learner to learn:

- i) A computer is installed outside the classroom, while a single terminal electronic typewriter is placed inside the classroom that has direct access to the computer. The teacher encourages students to develop their own computer programmes through the typewriter. Those students who are above average might be asked to interact with the peers and help them develop their own programmes.
- ii) A full package, consisting of a course, or a course unit, is presented to the learner through the computer. It keeps every record of the learner and guides him/her by providing various exercises and drills, besides some remedial programmes for the slow learners. In each of these cases, a teacher can get any required information about the progress and performance of a learner from the computer.
- iii) A computer is used to provide simulated learning situation to the learners. (You will see more about simulation in section 2.4.1 of this unit). Parts of the learning materials which are beyond the immediate understanding of the learners (for example complicated, futuristic projections) can be submitted with the aid of a computer. This provides a greater measure of clarity and motivation to the learner.

Unlike classroom learning, a learner gets sufficient freedom to interact with the computer and learn on his/her own. He/she can proceed at his/her own pace, and at every step feedback is provided by the computer through interactive terminals that motivate the learners to interact and to learn more from the computer.

In other words, the 'passivity' in lecture situations which we are familiar is

eliminated, since a learner remains active throughout the learning process. The learner is never discouraged, because the computer never gets irritated.

Another development is what has come to be known as computer managed learning (CML) in which the computer manages the learning activities of a learner. The computer records the profile of the learner, including the level of attainment and pace of learning. On the basis of these learner characteristics, suitable learning models are suggested to individual learners.

The learner's progress is monitored from time to time by the computer, and it decides upon and suggests modifications in the design of learning for individual learners if and when these are needed.

The success or effectiveness of the use of the computer primarily depends upon the type and quality of the learning package fed into it. A good learning package, besides providing a higher level of learning, should also sustain the motivation and interest of the learners. Ideally, CAL should be integrated with the entire course, and its role should be made explicit to the learners at the beginning. This would certainly help avoid any possible confusion in the use of the computer among the learners.

The feasibility of CAL and CML etc. has to take into consideration the socio-economic requirements (like need for expensive hardware) etc for small groups of learners. However, the point to be emphasised here is that the computer is being used for individualized learning.

2.2.6 Individual Project

Let us begin by explaining what we mean by a project.

A project is a unit of activity in a course, the theoretical perspectives of which have already been taught or learnt in or outside the classroom. It usually aims at a particular level of understanding. The learner may either initiate a project or choose from pre-listed projects and carry out the investigation that commonly results in a thesis/dissertation/model/report/programme, etc. The teacher plays an advisory role in the project work, usually helping the learners proceed at their own pace. However, unlike in the case of an exercise, the teacher has only a limited control over the outcome of the project work.

In the case of an individual project, the learner is allowed the freedom to choose a topic/unit of activity to work on, and this freedom of choice ensures learner-commitment to the project. Besides, decision-making is the responsibility of the learner right from the beginning.

The steps an individual project work would include are:

- perception of a problem;
- consulting relevant literature and defining the problem;
- preparation of a design to investigate the problem;
- selection, collection and retrieval of data relevant to the problem;
- data analysis and finding solutions;
- testing the finding/solutions at each stage of data analysis;
- incorporating the feedback collected from testing; and
- reaching the final results and communicating them appropriately to the others concerned.

Before we proceed further, we should pause here and sum up what we have presented so far in this section. For this, you should work out the following exercise.

Check Your Progress 2

Note: a) Space is given below for your answer.
 b) Compare your answer with the one given at the end of this Unit.

List the five important learner-centered instructional techniques.

.....

.....

.....

.....

.....

.....

.....

.....

Let us now take up yet another type of teaching-learning techniques.

2.3 GROUP LEARNING TECHNIQUES

While the individualized learning techniques facilitate learning in an academically isolated and independent individual, under the group learning techniques, care is taken to stimulate group discussions and other activities within a group to achieve the stipulated educational objectives. Group learning techniques are more suitable than individualized learning techniques for achieving objectives concerned with the development of interpersonal skills, problem-solving skills, oral communication skills, critical thinking skills, etc. Group interaction and development of group based skills are very vital in group learning, and therefore external factors like group size, seating arrangements, the layout of the room, etc., influence the effectiveness of such techniques a great deal. Each group may consist of (at the most) 10 learners for effective group interaction.

We can organise group interaction in varied ways. We have presented two such models of organisation below:

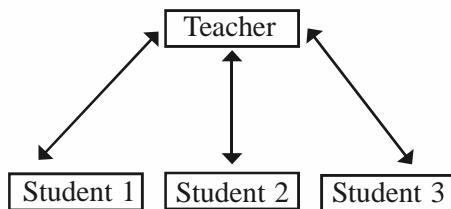


Fig. 2.4: Group Discussion: Situation 1

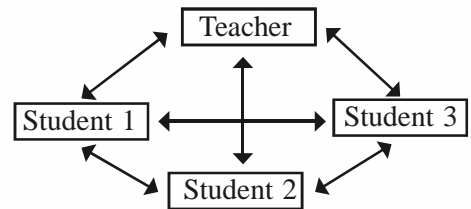


Fig. 2.5: Group Discussion: Situation 2

You may notice that ‘group dynamics’ in the two situations (Figs. 2.4 and 2.5) of group learning are different from each other. Fig. 2.4 represents a group learning situation where the discussion and group interaction are controlled by the teacher. In this situation, dialogue is effected between the teacher and the students. There does not exist any interaction between the students, and therefore the pattern of communication seems to be very limited. The group learning

situation depicted in Fig. 2.5 represents a different kind of communication pattern in which all the students in the small group interact not only with the teacher, but also with one another and the group as a whole controls the discussion and group interaction. While in the former situation (i.e. Fig. 2.4) the teacher has to be active throughout the discussion/group interaction, in the latter situation (i.e. Figure 2.5) the degree of teacher-participation after initiating the discussion will be relatively less. However, in both situations, the teacher plans and structures learning experiences in order to effect learning in a group.

If the teacher predetermines the organization of the group and the pattern of discussion, the group learning situation is called a structured situation. In certain group learning situations the group activities may not be structured and pre-planned, and so the students are free to adopt any pattern of group discussion or interaction. Though in the former situation it is possible to predict the learning outcomes, in the latter situation it becomes very difficult to do so.

We shall discuss the following group learning techniques in this section:

- i) tutorial;
- ii) seminar;
- iii) controlled discussion; and
- iv) group project.

Let us take up each one of them in the given order.

2.3.1 Tutorial

A tutorial is an extended classroom, and so far as the group size is concerned it may be called a classroom in miniature. Tutorials provide students with a chance to express their individual learning difficulties and help the teachers to pay attention to each learner individually. The teacher selects the topic and puts it forth for discussion in the group. Besides, the whole organization of the learning situation is predetermined by the teacher. Though the teacher controls the group interaction and discussion, much depends upon the students behave and interact with the teacher.

Look at Fig. 3 once again. You may notice that the situation is typical of a small teacher-controlled tutorial group where the interaction takes place only between the teacher and the students. The factual contents of a subject are generally discussed in a tutorial. However, the techniques adopted in tutorials may range from simple essay writing to solve a problem. The students write an essay, do a project or undertake problem solving activities, and the teacher acts as a group leader/consultant. If the teacher becomes more dominant, and the content organization get more structured, the learning experience may result in replicating formal classroom learning in the form of a mini-class, which should not happen since it has limited effectiveness.

2.3.2 Seminar

To cite an example, let us look at Fig. 2.5, Situation 2. The situation presented there represents a seminar where general group discussion forms the major technique of group learning. Group discussion allows frequent and multiple ways of interaction among the students in the group, and learning is controlled by the group rather than the teacher. The techniques used in the seminar may differ from subject to subject and from one level of education to another.

In a seminar, occasionally one of the students of the group presents a written essay or a talk. The contents of the presentation are discussed by the group within the frame of their predetermined learning transactions.

The teacher keeps his/her dominance at a low key and allows more discussion and interaction among the members of the group. The student who presents the essay or the talk is encouraged to be more analytical and to evaluate the theme rather than be governed by the considerations of content coverage or correctness. However, discussion among all the students in the group is as important as the presentation of the topic by one student. In some situations, rather than being on the topic the stress will be on the ability to critically and analytically discuss the issues in the group.

In practice, there are many variations of the type of seminar discussed here. You may think of a situation where one small group of students sits around a table in a room and discuss a pre-determined topic or issue while another small group simply observes the group discussion. After the discussion is over, the group in the outer circle joins the group around the table to discuss and assess the discussion already carried out. This procedure contributes to the development of non-verbal communications skills and leadership behaviour among the members of the group. This is called the “fishbowl” technique, and is usually used for identifying various aspects of group dynamics.

2.3.3 Group Discussion

In a controlled discussion the students are free to ask questions and contribute to the discussion through comments. Such discussions are used in the case of large groups, say, for instance, in exposition-based teaching sessions. After the session, a controlled discussion is carried out to provide feedback to the students. In a classroom situation, the teacher asks pre-planned questions of students to lead the entire group towards the pre-determined goal of learning by stages. In this situation the teacher has full control over the course of the students’ discussions. This technique is usually used to reinforce the content of a course already taught through the formal classroom lecture.

2.3.4 Group Project

In sub-section 2.2.6 we have written about the nature of, and processes involved, in conducting individual project work. In a group project, a small group is assigned the task of selecting a problem and conducting a study on it. Every learner in the group interacts with the other, discusses the problem and contributes to its study in whatever way one can. While carrying out a group project work, skills for group work, group involvement and interaction, individual assertion within the group, group communication, and personal development within the group are given emphasis.

Group project work involves the following three stages:

- i) recognition of a task/unit of activity problem;
- ii) definition of the problem and formulation of work design; and
- iii) solution to the problem.

While solving the problem, the procedures followed are similar to those noted in sub-section 2.2.6, except that instead of an individual learner the whole group is involved in the investigation. Therefore, decision-making is the responsibility of the entire group and it needs group involvement, cooperation and commitment to succeed. Group project work may involve individual presentations and individually allotted tasks within the group, participation in group discussions, and the chairing of such sessions by each participant through a system of rotation. Since the outcome involves group-responsibility, every learner in the group “has” to be committed to this collective responsibility.

The supervisor, in this case the teacher in charge of a group, guides the group project work, provides consultancy, and helps the individual members in the group to effectively participate in the group activities including group discussions. Group project work develops the skills of argumentation, assertion, written and oral presentation/communication, organization, tolerance, cooperation and empathy. Further, the interaction in a group teaches the learner the basic principles behind adjustment in a societal framework. In other words, group project work at the level of higher education develops adult socialization.

Before we proceed further, let us work on the exercise given as follows:

Check Your Progress 3

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this Unit.*

Define any two group learning situations in about 10 lines. Give an example of each situation.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Now we shall touch upon the last of the learning techniques: we intend to study in this Unit.

2.4 EXPERIENTIAL LEARNING TECHNIQUES

Before we proceed further, we should know what experiential learning is. Let us begin with an explanation of the concept of experiential learning. It can be defined as learning that occurs outside the classroom. This learning occurs when changes in the judgments, feelings or skills of an individual result from living through one or more events taking place in society/community one lives in.

You should be clear that this is not confined to such events as field trips and work experience. It may result from attending a lecture. However, in that case what is experiential is that which results from living through the event, and not simply from the content of the lecture. It should be clear to us that learning depends on an individual's experience gathered from living in the society and the surrounding environment. It is, otherwise, bringing knowledge from society to classroom rather than from classroom to society. You should also remember that experiential learning is not confined to heuristic learning which depends reasoning and past experience. It may take place in both structured and simulated situations. Broadly, we can categorise experiential learning as follows:

- i) **Non-sponsored experiential learning:** This is also called 'learning through life experience' and 'prior learning'. It includes any type of creditable learning-through work, travel or volunteer service-which a learner has acquired independently of an educational institution.

- ii) **Sponsored experiential learning:** This type of learning includes institutional sponsored programmes that are designed to give learners more direct experience in integrating and applying knowledge - especially learning at a distance, learning through activities or work programmes etc. These learning activities are incorporated into the curriculum. Learner-centered instruction, programmed instruction, case studies are some examples of sponsored experiential learning.

In both types of experiential learning, we should be clear that the learning or competency acquired must be relevant to the objectives of the learner and the institution.

What does experiential learning imply?

It implies that learning is highly individualistic and the conditions under which knowledge or competency is acquired vary widely. The potential range of learning experience should obviously be a wide one. By its nature, experiential learning is often not subject to the close supervision of the teacher. This should not, however, deter us from dealing with it extensively. Distance education, by its very nature, is something akin to learning through experience.

Let us pursue this line of thought a bit further.

‘Distance education’ mostly caters to the needs of adult learners. Most of them have professional and intellectual maturity along with high levels of observation skills and creative thinking, all of which characteristically help them learn through their experiences. Experiential learning is therefore very congenial for adult learners who select their courses on their own. It particularly benefits these learners at two stages:

- i) When a learner takes up any learning activity to be performed outside the four walls of a classroom, he/she involves himself/herself in interpersonal interaction, whether in real life settings or in simulated environments. These interactions are important because they are the beginning of the learning activity. Because of a high degree of involvement and motivation, whatever is learned here is seldom lost.
- ii) When the successful accomplishment of a learning activity gives intrinsic motivation/reward, it is useful at a later stage for having the effect of reinforcement.

Check Your Progress 4

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this Unit.*

Write in about 10 lines what is meant by ‘experiential learning’.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Having looked at experiential learning in general and its particular relevance to distance education situations, we shall now discuss the following experiential learning techniques in some detail:

- i) discovery learning;
- ii) learner-controlled instruction;
- iii) programmed instruction;
- iv) simulation;
- v) role play; and
- vi) case study.

We shall take up each one of them in the given order.

2.4.1 Discovery Learning

The expression 'discovery learning' refers to those situations in which the learner achieves the instructional objectives with little or no guidance from the teacher. A simulation, in which the teacher assists the students in the recall and/or the application of relevant principles, is called 'guided discovery method'. We should be clear here that the teacher guides the students and does not simply provide the solution to them. And, an unguided discovery learning situation is one in which the teacher gives the learner neither the guidance nor the solution to a problem. By implication, the learners themselves arrive at the various possibilities independently, by applying their skills, and then find out the solution.

The effectiveness of discovery learning as a method lies in the fact that it requires the individual learner to find out the solution to a problem. A problem-solver is often described as one who interacts with the environment in testing hypotheses and developing generalizations. The application of the discovery technique as a method of learning leads to individual capabilities of various kinds. It should, therefore, be obvious that discovery learning:

- increases intellectual capability (The way a learner acquires knowledge helps him/her solve any kind of problem in a teaching/learning situation);
- increases learners' intrinsic motivation (The learner carries out the learning activities independently);
- increases the learner's skills of observation, investigation, problem solving and independent learning (The learner's competency of inquiry, is thus, sharpened tremendously); and
- increases the retention of learning among learners (Because discovery learning involves active participation on the part of the learner it helps him/her develop capacity of his/her storage system of information).

However, the discovery learning techniques has its own limitations. The main limitations of this method are as follows:

- i) It demands a high level of intellectual maturity in the learner in terms of ability to inquire, analyse, apply concepts and to generalise.
- ii) It is difficult to learn (or even to teach) creative and critical thinking which is the basis of discovery learning.
- iii) It is considered to be of limited value in the context of education. With a few exceptions, the use of the discovery method often leads to wastage of time and resources (Ausubel, 1963). But, if it is meticulously handled, it proves to be an effective academic exercise.

2.4.2 Learner-Centred Instruction

Learner centred instruction is based on the humanistic philosophy that the learner is one of the best sources of information about him/herself and so the learning sequences suggested by individual learners are most effective (and systematic) for optimum learning. This seems to have been a reaction to the approach followed in programmed instruction. From our discussion of programmed instruction in 2.2.4, we can easily surmise that the sequence of presenting content in programmed instruction is developed by the programmer him/herself. Of course, the learning sequences are supposed to cater to the needs of individual learners, but the learners cannot ask any questions they wish or discuss the problems they encounter. This has led to the newer concept of learner controlled instruction. In this approach, each learner develops his/her own learning sequence and leads the learning by asking questions. The learner thus actively participates in the learning process and satisfies his/her needs at every stage in the process.

Let us now briefly discuss the following main assumptions which the learner-centered instruction operates on:

- i) **Self-directed:** The learners have the capacity to identify their needs and to think over them and in order to meet them act accordingly. Because the learner provides the structure of his/her learning process, his/her motivation will remain sustained.
- ii) **Warm academic climate:** The learner is not under any pressure and retains his/her self-esteem. This in turn, motivates him/her and influences purposeful learning.
- iii) **Learning how to learn:** The learners know that they are on their own and so what is important is to tell them how to learn rather than how to be taught. They learn on their own by applying their previous knowledge and experience to current problems. By implication, this approach demands minimum help from teachers/tutors.
- iv) **Self-evaluation:** The learners identify the objectives of learning or the problem-areas, which is helpful in guiding their learning. At the end of the learning activity they will be able to know whether they have achieved the objectives. Thus learner-centered instruction provides an opportunity to the learner for self evaluation.

Having looked into the principles of learner-centered instruction, we should also speculate on the possible limitations of the approach.

The limitations might be:

- i) Developing a sequence of learning in this approach is a difficult task, as it entails a comprehensive understanding of the instructional technology and learning characteristics of adult learners.
- ii) Preparing learner-centered instruction is a time consuming exercise. At times, the important learning points might get left out and are unlearned.

However, if we analyse the concept of learner-controlled instruction, we will find that this method leads us towards open and discovery learning. All the characteristics of open learning are reflected in learner-controlled instruction.

2.4.3 Simulation Technique

Here, you are making an attempt to expose simulation technique popularly used in face-to-face education. It has applications in distance education in the form of simulated communication in SIMs, and in tutoring and counselling.

By simulation, is meant the replication of reality in order to make it easily accessible to the learner. In teaching-learning situations, simulation techniques are used in order to make reality easily accessible to the learner. Thus, in simulated situations, learners deal with simulated problems through action. That is to say, some learners, having identified the delineated problems play roles so as to simulate the situation, while others just observe the action. The essence of simulation is the involvement of participants (learners) and observers in a specially created situation.

The simulation technique, thus, provides a live sample of human behaviour which serves as a vehicle for learners to:

- i) explore their feelings;
- ii) gain insight into their attitudes, values and perceptions;
- iii) develop their problem solving skills; and
- iv) explore the quality of the subject matter being discussed/analysed.

These four possibilities indicate that simulation advocates an experience based learning situation. The enactment elicits genuine and typical emotional responses and behaviours from the learners, whereby learning becomes more effective and meaningful.

To make the process of learning through simulation effective, we should follow the stages given below:

- i) **Warming up:** This stage involves the identification of the problem or the skill to be acquired, an explanation of the issues related to it and the explanation of role play.
- ii) **Setting the stage:** At this stage, the group should be motivated for active participation by explaining the significance of role play, etc.
- iii) **Preparing the observers:** This stage involves decisions about which observation tasks (like the kind of information/data) are to be recorded; the way the recorded data is to be presented, etc.
- iv) **Role play:** Once the stage is set, actual role play is conducted at this point.
- v) **Assessing the event:** At this stage, the observers will review the event with the help of the predetermined procedure for evaluation. Naturally, the strong and weak points in the exercise will be discussed with a view to making the learners acquire the desired skills.
- vi) **Re-enactment:** On the basis of the observation and the assessment of the event a repeat version of role play, if needed, is arranged.
- vii) **Review:** This stage involves reviewing the progress of the learners, highlighting the improvements, relating the simulated situation to real-life experience and the principles of acquiring the required skills.

The learners play roles in turns and in the process; the desired learning objectives are achieved.

There can be many ways of simulating a real-life situation, and they are based on models. Models can be at least of two types-static and dynamic. A trainer describing the situation of the problems of a personnel manager in an industry with the help of charts and slides is an example of static model of simulation. On the other hand, in a dynamic model of simulation, the real-life simulation/problem is dramatized or presented in a lively way so that both the players and the participants learn about the real problem and its solutions.

The technique of simulation games is generally used in defence academies, management institutes or training programmes. Nevertheless, it need not be restricted to any one particular discipline. For example, this technique can be used for teaching/ learning English as a foreign language.

Consider the following steps through which students learn English.

The teacher tells the students of a group that they are to visit Chennai where a majority of the people, including the business community understands English besides their mother tongue. So all the students should try their best to learn it to interact with them. With the help of students, the teacher arranges for the construction of temporary shops, offices, etc. around a small area within the premises of the institution.

A few students are assigned the task of acting as shopkeepers and professionals, cloth merchants, grocers, stationers, tourist officers, bank managers, postmasters, railway ticket sellers, etc. They are provided with handouts in English containing information on bus routes, historical places, shops and commodities available, a railway station, post office, bank, etc.

The other students are asked to collect information from these 'shop keepers' and 'professionals', etc. to prepare a proposal in English containing all the information necessary to undertake a journey to Chennai by the students of the entire school. The group, including the teacher, discusses them in English and each plan/proposal is rated by all. The best plan is selected.

Each one prepares and presents an individual proposal.

Through this kind of technique students should be taught written and spoken English and, perhaps, incidentally helped to acquire new vocabulary in the process.

Similarly, learners can learn business games, risk-taking behaviours and allied skills; each learner gets a chance both to act in the game and to evaluate it. The learners are entirely free to act in their individual way but within the specified rules of the game.

This gives the learner the opportunity of experiencing the situation in an individual style. This individualized experience demands expertise in designing the theoretical framework of the game to be practiced in a real situation.

It should by now be obvious that simulation technique:

- provide greater opportunity to learners for active participation in the learning activities, make learning more interesting and permanent; and
- Promote the application of insights gained in a learning situation to real situations and thus help the learner acquire the skill of decision making. This clearly reduces the dominance of the teacher.

However, we should keep in mind that:

- we cannot use simulation techniques for all disciplines or in all situations; and
- advance planning and preparation is imperative to derive optimum benefits from simulation.

2.4.4 Role Play

The system of distance education demands a built-in mechanism of continuing training and system development. The technique of 'role play' is an effective tool to impart training objectives.

Suppose, in a training programme on industrial management, three participants play the role of the managing director, the labor officer and the worker and thereby realize the skills and problems involved in those tasks in real life situations. In essence, dramatization is the usual method of role playing. While rehearsing or dramatizing the role, the teacher or the trainer should make it clear that the learner or the trainee does not have to concentrate on acting. The learner should however concentrate on how accurately he/she thinks through the mind of the person or model whose role is being played. Therefore, the main purpose of role playing is the development of social skills or the ability to develop interpersonal relationships and to understand interpersonal problems.

A role play session may adopt the following steps:

- selection of an appropriate problem/situation and identification of the roles to be played;
- selection of the learners/trainers for the identified roles;
- briefing the learners about the tasks to be undertaken by each member;
- preparation for presentation by the learners;
- role-playing;
- peer group comment; and
- comment and feedback by the teacher/trainer.

Besides the peers and the teacher/trainer, the role players themselves may be asked to put forward their feelings while playing the role and to comment on their own roles. This provides the scope for self-evaluation. Having talked about various techniques we shall now take up two bipolar strategies which are prevalent in the educational world.

2.4.5 Case Study Technique

Before we take up the topic under consideration let us explain what we mean by 'case study'. 'Case study' is a way of organising and analyzing data for the purpose of studying a social unit. The social unit may be an individual or an institution or a community. In other words, this is a research technique that attempts to examine contemporary phenomena in a real-life situation.

Minnis (1985) tells us of two types of case studies frequently used in distance education. They are:

- i) **Within-case design:** In this case study, we undertake in-depth study on a single situation with the purpose of examining the relationship of multiple variables within the bounded system.
- ii) **Cross-case design:** In this type of case study, we synthesise the findings of a number of cases for the purpose of developing a more generalised explanation of the situation/phenomenon. This also provides the basis for confirming the findings provided by the studies conducted under the within-case design.

Procedure followed for preparing case studies:

There are various procedures in the study of a case. Because we analyse and explore complex events, we should follow a systematic method of studying a case. In general, the case study technique can be divided into the following steps:

- i) **Statement of the problem:** A brief description of the nature and status of the problem to be studied should be given in the beginning of the study. This

may include, besides introducing the problem, details about the selection of cases, types of cases, number of cases, analysis of cases, etc.

- ii) **Collection of data:** Various techniques like interviews, questionnaires, psychological tests, experiments, etc., are used to collect data for the study.
- iii) **Analysis of data:** The data collected from various sources is analyzed to see the relationship between the factors that influence the case.
- iv) **Conclusion:** On the basis of the analysis of events and determinant factors, conclusions are derived. We need to take extra care for the conclusion to be objective.

Though very useful, the use of the case study technique is often limited to research studies. Why? As you must have guessed, this technique requires a lot of time from the researcher/user. Its application is, therefore, limited to certain areas of research.

In distance education, case studies are important mechanisms to obtain feedback from various functionaries and learners to strengthen the teaching-learning system. Case studies can be effective instruments for developing higher order learners' learning competencies.

Check Your Progress 5

*Note: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this Unit.*

List five ways/situations in which experiential learning can take place.

.....

.....

.....

.....

.....

.....

.....

.....

2.5 TEACHER-CENTRED TECHNIQUES

We are aware that teacher-centered techniques are largely applied in the conventional face-to-face classroom set-ups where the major part of the instructional transaction is carried out by the teacher who usually acts as a friend, philosopher and guide to impart knowledge, develop attitudes and skills face-to-face. The institution, along with the teacher, decides upon the organization and presentation of a course. Besides, they decide on the duration of a class-period (lecture/demonstration), the place of lecture, etc. Naturally, then, a classroom set-up has to be strictly adhered to. As you are aware, the usual method followed within these rigidities is the lecture that hardly takes into account the personal difficulties and individual learning styles of students. Besides being teacher-centered, this technique is mainly geared towards achieving the objectives of the concerned institution.

In Fig. 2.6, we represent graphically the teacher-centered approach to learning.

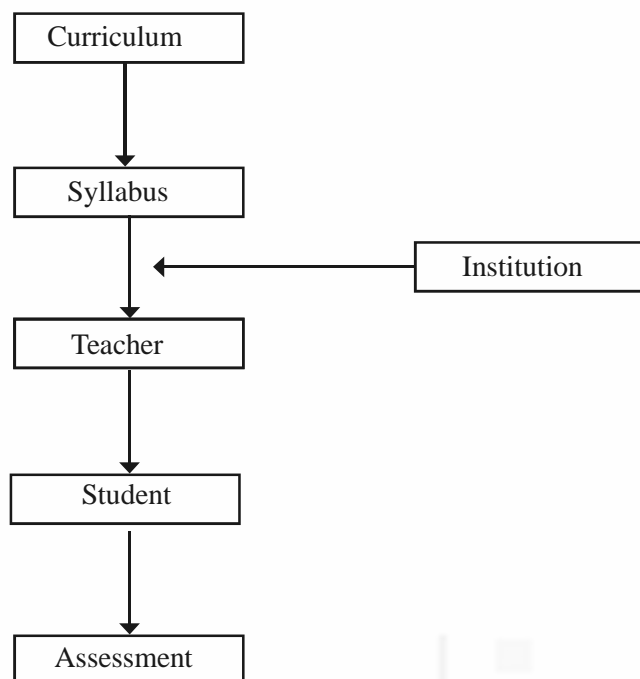


Fig. 2.6: Teacher-centered Approach: A Representation

What do you notice in Fig. 2.6?

Fig. 2.6 indicates that the teacher plays the role of an intermediary in transacting the curriculum in the classroom for the students. While doing so a teacher makes very crucial decisions regarding the interpretation of the syllabus, content coverage, and the level at which the contents are to be presented in the classroom. Further, the teacher has to decide on the method of teaching, and on the structuring, sequencing and presentation of materials, according to the assumed level of the audience. Most often this kind of planning has to be either sacrificed or compromised because the teacher has to complete a prescribed portion of the entire curricular programme or syllabus within the stipulated time. And this is a major handicap in the classroom teaching-learning transaction.

Obviously, the teacher's decisions are dictated by the demands of the syllabus. The learning activities of a student, on the other hand, depend on the decisions of both the institution and the teachers. The learner is thus expected to adjust his/her style of learning to the educational decisions of the teachers and the organisational constraints of the institution. Further, the student has no say in the evaluation of educational achievements through the term-end or continuous examinations that are set by the teacher or the institution, or by both of them.

In the teacher-centered approach the following two methods are used quite often:

- i) lecture method; and
- ii) demonstration method.

We shall now look into them in the given order.

2.5.1 Lecture Method

As a teacher-centered method, it generally involves one-way communication wherein a supposedly learned person explains the subject's complexities to a supposedly motivated audience. This method has been, and remains, so extensively used in conventional educational situations that its educational effectiveness has become very difficult to determine. Besides, as the learners

are quite used to this method of teaching and learning, any deviation from this method creates confusion and insecurity in them. One reason for its popularity in this conventional set up, perhaps, is that it can be used for quite a large number of students at a low cost. However, we should remember here that we are talking about its effectiveness.

A lecture could be made effective if it is structured/organized in the following way:

- i) **Introduction:** The lecturer/teacher introduces the topic to the class by relating it to the previous knowledge of the learner. In order to kindle the curiosity of the learners and to sustain their motivation, he/she asks a few questions on the familiar topics relevant to the one being taken up. Depending on the class-requirement, the teacher can use charts, models, etc.
- ii) **Presentation:** The teacher presents the subject matter acting as a medium between the syllabus and the students. He/she needs the following skills to present the subject matter effectively.
 - Dividing the subject matter into small manageable chunks of information and arranging them in a logical sequence. Depending on the class/topic requirements the teacher can use audio-visual media like the blackboard, maps, globe, charts, etc., accordingly in order to make the subject matter easily accessible to the students.
 - Motivating the learners and sustaining their motivation with the help of the audio-visual media, body language (posture, gestures), humour, etc.
- iii) **Closing up:** Towards the end of the lecture, the teacher summarizes the whole lecture to help the students retain the contents. After providing a study guide to the learners and telling them how to go about their learning activities with reference to the particular topic taken up, the teacher may brief the students about the ensuing lecture.

Do you think that for effective lecturing, it is sufficient for a teacher to follow the above three procedures sequentially? Besides depending on a structured lecture, the teacher should try to initiate student-student and student-teacher interaction. One possible way of doing this is through asking open-ended questions. Making statements of objectives in order to convey to the students what they should be able to achieve after a particular lecture is listened to, and additional resource materials like distributing relevant handouts that cover the major points of the lecture, etc. can also accompany a lecture. A well structured lecture can even be recorded on a cassette and played in the classroom. To ensure interaction among students the teacher can provide question sessions during a lecture. These possibilities notwithstanding, a lecture is a one-way communication process and a teacher-centered method in which there is very limited scope for individualized learning. Hence, teachers must be professionals in their theory and practice so as to develop future professionals in the society.

2.5.2 Demonstration Method

A common example of the demonstration method is the sessions conducted in a laboratory.

Demonstration is a method used mainly to develop the psychomotor and manipulation skills of the students. Unlike most of the lecture sessions it is possible that the students get chances to actually participate in the practical sessions. This method is used more often in the teaching of sciences, however, instances of the use of this method in teaching of literature and language can be found in, say, the dramatization of a play. It is essential; therefore, that the teacher does not only treat the elements of the theme at the theoretical level,

but also designs practical work. It is always helpful to stipulate the objectives of such demonstrations in advance for informing both the students and the teacher-demonstrator of the expected outcomes. As the students solely depend upon the teacher who demonstrates the practical aspects of the subject-elements, the teacher demonstrator has to handle the sessions carefully so as to provide adequate individual attention to each student.

Though the demonstrations/practical laboratory activities may be well planned, they often fail to achieve educational objectives beyond the psychomotor domain. And so it is essential to evolve means by which we can make the practical sessions more individualized and student-centered.

What is obvious here is that the teacher plays a dominant role in the teaching-learning process. In direct contrast, learner-centered techniques place the onus of learning on the learner. The teacher, therefore, instead of dominating the process of learning, facilitates it and academically supports the learners.

2.6 INSTRUCTIONAL MATERIALS

A systems approach to instruction attempts to focus on the maximization of efficiency of the methods by which knowledge and skills can be passed on. Educational technology is a rather diverse field which seeks to study and apply various techniques, systems, tools and media in education and training. In the preparation of learning materials the needs of the learners have to be analyzed and the most effective means of delivering learning to satisfy those needs have to be organised.

For distance learners the development of self-instructional materials has to be planned in such a way that the choice between alternative media through which the teaching-learning processes will take place can be clearly highlighted. Though print dominates the learning process in distance education, other communication media can be judiciously mixed to ensure learning effectiveness. Printed self-instructional materials, with built-in mechanisms of reviewing, recalling, testing, application through activities, visual inputs like graphs and charts etc., can substantially take care of learning inputs in distance education

There is, of course, the possibility of using various audio-visual media (both hardware and software) in academic lectures and talks, practicals, demonstrations, etc. In other words, besides direct teaching, a teacher can undertake indirect teaching via certain intermediate medium or audiovisual media. These media may be used either to increase the effectiveness of face-to-face teaching or to act as a major part of the instructional strategy itself. However, the media are selected to fit in the instructional strategy chosen.

Media can broadly be classified as follows: the non-projected visual aids, and projected audio and visual aids. The first category consists of chalk boards, white boards, wall charts, models, flip charts, handouts, etc. which do not need the use of an optical or electronic projector. The effective use of these tools depends largely on the skills of the teacher.

Wall charts consisting of maps, photographs, diagrams, graphs, cartoons, etc. are especially helpful to motivate the students, to initiate a discussion, or to substitute for information storage memory. Flip charts are used during a lecture to reveal key points as and when these are required. Models are especially useful to present the various dimensions of an object or an event, but these can be used only with a small group of learners because of the fact that these are indistinguishable to a large audience sitting far away from the teacher's desk. Handouts may contain printed diagrams, tables, notes, etc. that can be supplied to students to concentrate more on what was said during the lecture.

Filmstrips, projectors, slides and slide projectors, overhead projectors, etc. that might have either front or back projection, belong to the second category. The audio-visual aids are prepared and very often integrated with the lecture. To make them effective, a lecturer/teacher needs to learn how to prepare and handle them. For the learners, it is a chance to get relief from the straightforward lecture, and interaction with other media motivates them as well as increases the effectiveness of learning. The functions of audio aids like tape recorders and record players are similar ones.

In learner-centred systems, self-instructional materials play the main role in providing mediated teaching to the learner, while the teacher only manages and supports the learning process. Varieties of hardware and software like textual materials, audio-visual self-instructional materials, computer-based self-instructional materials, etc. are used to individualise learning. Let us very briefly discuss these media and their role in individualized instruction/learning.

Textual materials: These include books, structured notes and textual programmed materials. Books may not generally be self-instructional in their design, but with the help of a study guide a learner may be advised how he/she should go about learning. In the case of subject areas, textbooks may form an integral part of such learning, provided they are appropriate in so far as their level and treatment of the subject matter are concerned.

Audio-visual self-instructional materials: These consist of audio-visual learning programmes, language laboratories, and broadcast media.

In a multi-media instructional programme, such as you find in distance learning, besides print, non-print self-instructional electronic media are put to use. The multi-media non-print package may include slides, audio and video cassettes, filmstrips, practical kit, etc. These materials aim at achieving the cognitive objective of mastery of a knowledge base, the psychomotor objective of skill acquirement, and the affective objective of attitudinal change. In essence, we can assume, and to a certain extent ensure, a high degree of student-involvement in the teaching/learning activity.

In language laboratories, learners use audio programmes along with a magnetic tape through which each learner can listen to pre-recorded programmes, record his/her responses and listen to them when desired. The teacher can monitor the activities of only one learner at a time and respond to either one or to a group of learners at a time.

Though originally used for language teaching, these laboratories are now being used for other subjects too.

Broadcast media like television and radio can be used to achieve the objectives of wider geographical coverage and of meeting certain cognitive and affective objectives that self-instructional distance teaching material may not be sufficient to meet. Developments in information technology such as video texts can be fruitfully used for individualized learning where the learning sequence is designed as per individual needs and the learner can proceed at his/her own pace by interacting with the information presented on the screen through a key board.

Computer-based self-instructional materials: Computer-assisted learning and interactive video can be cited as examples of this type of material. As far as computer assisted learning is concerned, two modes (namely, the tutorial and the laboratory) of individualized learning are important. In the tutorial mode, the computer plays the role of an instructional device. Programmed materials are used to react to the responses of the learner. And in the laboratory mode, the computer can be used to simulate a laboratory situation, to set problem-solving exercises, and to model experiments. Computer-assisted learning is a highly

stimulating and interactive learning device so far as individualized learning is concerned.

Interactive video combines computer and video recorder to provide interactive teaching-learning in individualized learning situations. The computer provides the programme, and the video recorder provides, sound and visual displays. The combination and procedure result in rich self-learning materials to meet individual learning needs. A later development in this area includes the combination of the videodisk with the micro computer to provide better access and individualization for the learner.

2.7 LET US SUM UP

In this Unit, we have discussed various teaching-learning techniques.

We have classified them into:

- teacher-centred techniques;
- learner-centred techniques;
- group learning techniques; and
- experiential learning techniques.

We have taken up each of these learning techniques and extensively discussed them with substantial examples. Towards the end of the unit we have focused on the role of educational technology in the field of instructional material development.

2.8 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

The role of a teacher in teacher-centered technique is that of a domineering intermediary who translates the syllabus for the students. By implication, he/she takes crucial decisions regarding the interpretation of the syllabus, course-coverage, the methodology to be adopted, etc. On the contrary, in learner-centred techniques, the teacher places the onus of learning on the learner. He/she, in academically guiding the learners.

Check Your Progress 2

The five important learner-centred techniques are;

- i) personalised system of instruction;
- ii) flexi-study;
- iii) distance learning;
- iii) computer-assisted learning;
- iv) individual projects.

Check Your Progress 3

It can be categorized into teacher-controlled and learner-centred group learning situations.

In a teacher-controlled situation, the academic dialogue occurs between the teacher and the students. There is, therefore, little interaction among students. An example of this situation could be tutorial session.

In a learner-centred situation, there is student-student and student-teacher interaction. The pattern of discussion is obviously decided by the students. An example for this situation could be a seminar.

Check Your Progress 4

Learning that takes place from living through an experience, event, etc. is defined as experiential learning. Obviously, it is different from the kind of learning that occurs in a classroom. However, it is possible for experiential learning activities to be incorporated into the curriculum. For example, case studies, project work etc., provide the learner with a direct experience in assimilating, integrating and applying knowledge. This kind of learning is called 'sponsored experiential learning'.

Experiential learning, thus, assumes that learning is highly individualistic.

Check Your Progress 5

The five ways in which experiential learning can take place are:

- i) Discovery learning;
- ii) Learner controlled instruction;
- iii) Programmed instruction;
- iv) Simulation;
- v) Role play; and
- vi) Case study.

UNIT 3 LEARNER SUPPORT SYSTEMS

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Need for Learner Support Systems in Distance Education
 - 3.2.1 Characteristics of Distance Learners
 - 3.2.2 Characteristics of Distance Education Institutions
 - 3.2.3 Characteristics of Distance Learning
 - 3.2.4 Characteristics of Distance Learning Material
- 3.3 Enhancing Curricular Transactions
 - 3.3.1 Reading Skills
 - 3.3.2 Study Skills
 - 3.3.3 Counselling and Tutoring
- 3.4 Institutional Mechanisms
 - 3.4.1 Study Centres
 - 3.4.2 Regional Centres
 - 3.4.3 Other Centres
- 3.5 Let Us Sum Up
- 3.6 Answers to Check Your Progress

3.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify the problems of distance learners;
- explain the role of learner support systems in solving the problems of distance learners;
- discuss the role of reading skills;
- relate the teaching/learning of reading and study skills to distance education;
- distinguish between the roles of tutoring and counselling in distance education;
- discuss the roles of regional and study centres and other institutional mechanisms that influence curriculum transactions.

3.1 INTRODUCTION

The view that education is primarily a learning process on the part of the student rather than an instructional process on the part of the teacher has achieved almost universal acceptance in recent years (Sewart, 1995). Assigning a central role to the learning process, and as a corollary, to the learners has led to greater attention being paid to the learners' requirements. In this setup the teachers role is essentially to provide support for different activities including-

- Teaching (Example: Tuition, Feedback, Grading)
- Administration (Taking administrative action, Advocacy, Assessment)
- Counselling (Informing, Advising, Counselling)

Distance education programmes are generally accepted as being learner-centered and being rather than teacher centered programmes, organized on an

industrialised pattern, with large-scale production and consumption, they treat the learner as their clients/customers. The central concern of these programmes is customer satisfaction. A majority of learners find that the self-instructional material (which forms an integral part of distance education programmes) helps them in working through their chosen courses successfully. However, there are a number of learners who for one reason or another find it difficult to get the best out of such materials. These learners need additional help to achieve their objectives. The ways and means of providing this additional help are called learner support services.

Learner support services refer to any services other than the actual course material which an institution provides to its students to realise the instructional objectives of the course. (Croft, 1991). Distance learners, according to Gallo (1977), need help and assistance for developing better skills, knowledge and attitudes.

In this Unit we shall first discuss the need for learner support services and then examine the characteristics of distance learners, distance institutions, distance learning, and distance learning materials. We shall also discuss the role of reading and study skills in enhancing the teaching-learning process in distance education. In this context, we shall discuss the interventions of academic counsellors and other personnel engaged in learner support services. In particular we shall discuss the processes of counselling and tutoring in distance education and their role in curriculum transactions. In the end we shall discuss the structure, function and operation of institutional mechanisms in the form of study centres, regional centres and other centres and their role in enhancing the curriculum transactions.

3.2 NEED FOR LEARNER SUPPORT SYSTEMS IN DISTANCE EDUCATION

The change from the industrial age to the information era has led to a greater emphasis on knowledge-based activities. The entire world is witnessing a burgeoning demand for information which has taken the form of “lifelong learning” and demand for formal or non formal courses in educational institutions. Rumble (1989) has suggested that distance education refers to varied forms of educational activity in which learners are physically apart from the teacher or the teaching institution for much of the teaching and learning process. But the relevance of the learner support system is found in its attractiveness to the multitude of learners as it has the ability to reach to the learners living in remote areas. The main aim of the learner support system in distance education is to promote self study/independent study, particularly in the absence of regular face to face contact. However, the learner support system is affected by social, economic and geographical conditions. Moreover, Sewart (1993) has focused on the need to integrate course production with the student support/learner support sub-system for the effective and efficient management of distance learning institutions.

However the process of distance learning requires the interaction of the learners, both with the material and with the teacher. The quality of the support system affects learning. Hence, it should go beyond providing material and tuition and should reflect a well-defined and integrated approach to learner services, based on clearly articulated guiding/counselling values about learners and how the learning process is best facilitated. As a matter of fact, in a good learning environment, each learner can interact with any of the existing elements of the institutional infrastructure to optimise the learning/performance.

Some important features of distance education make learner support systems an inherent need of these programmes:

- i) Characteristics of distance learners
- ii) Characteristics of distance education institutions
- iii) Characteristics of distance learning
- iv) Characteristics of distance learning materials

3.2.1 Characteristics of Distance Learners

Barbara Hodgson (1993) described learner characteristics in distance education system as comprising the following four major factors:-

- 1) **Demographic factors:** These include the learners' age, sex and occupation.
- 2) **Motivational factors:** Such as why the students are learning and how a learning programme might relate to their work and aspirations about learning.
- 3) **Learning and subject background factors:** Such as educational history, existing knowledge, relevant experience and learning styles.
- 4) **Resource factors:** Such as when and how the learners will be studying, the time available, access to media or other facilities, and the financial support available.

The idea that distance learners have to rely on self learning is based on the universal perception that study material for distance learners is adequately clear and lucid i.e. they are written with enough explanatory details and built in content-student interaction through self assessment questions. It is, therefore, the need for external pedagogic support would be minimal for example. This presumption led the Open University of Hong Kong to follow the universal pattern of distance learner support, namely personalised tutor – student interaction which is learner centered and most focused on student identified content-related difficulties. This would obviously make the conventional lecturing method unwanted and rather inefficient.

Oliver and McLaughlin (1997) highlighted the role interactivity which provides a way to motivate and stimulate learning in the form of dialogue. It also provides the means for instructors to help learners to consider and reflect on the content and process of learning and to seek more complex levels of learning as well as understanding of the course content.

However, the basic characteristics of distance learners become clear when we compare them to conventional learners. The following table indicates the differences between the learners in the two systems:

Table: Learners in conventional and open systems: A comparison (Koulet. A (1989)).

Conventional System	Distance education system
<ul style="list-style-type: none"> ● Learning is a full time and major activity. ● The learner remains in one role and continues the membership of a learning institution. 	<ul style="list-style-type: none"> ● Learning is a part time secondary activity ● The learner generally returns to a role he/she had given up sometime ago.

<ul style="list-style-type: none"> ● The learner belongs to an institution. ● The learner is usually young. ● The learner is in easy contact with fellow learners. ● The learner has easy access to institutional resources. 	<ul style="list-style-type: none"> ● The learner is a member of many institutions, most of which (e.g. work, family) take precedence over the institution which gives the courses. ● The learner is usually an adult. ● Contact with fellow learners may not be easy ● The learner’s contact with the institution is infrequent and often takes place across a distance.
--	--

The table highlights some important aspects of the distance learners such as their:

- 1) substantial time commitments to home and/or work leading to the limited availability of time and energy for educational/learning related tasks and activities,
- 2) previous educational experiences which may be positive or negative, which implies that emotional or affective influences may play a greater role in distance learning particularly since there is limited face to face contact and communication, leaving the distance learner to deal with his/her own feelings.
- 3) wide diversity of educational, economic, social and occupational backgrounds and contexts, which effect the learners’ allegiance and commitment to the educational institution.
- 4) generally high level of commitment and motivation since the choice of continuing education is based on personal decisions and commitments.
- 5) isolation from other students and the institution, which leads to a certain remoteness and to limited communication.
- 6) the remoteness from the central institution, which makes access to the institution and its resources limited.

These characteristics of distance learners serve to highlight the need for support services for overcoming the limitations and problems faced by them.

Check your Progress 1

Notes : a) Space is given below for your answer.
 b) Compare your answer with the one given at the end of this unit.

What are the main differences between distance learners and conventional learners?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.2.2 Characteristics of Distance Education Institutions

Institutions imparting distance education tend to develop some common characteristics such as

- **Remoteness:** Even an institution that develops a regional network of services still tends to have its offices hundreds of kilometers away from its students. In countries where communications are difficult, the remoteness of the institution is compounded by delay and delivery problems.
- **Complexity:** An institution which is trying to produce a vast and diverse variety of course materials and deliver them to learners as well as to provide support services, is likely to develop a complex bureaucratic system of administration. Such systems can be very effective in dealing with large numbers of learners but that may be inflexible and damaging when dealing with individuals.
- **Functional diversity:** The greatest challenge for distance education institutions is the variety of functions they must perform, which calls for a variety of organisational styles. While running production system and operating course materials warehousing may best be done through the rigours of industrial process for ensuring availability of material for learners within time the functions such as the development of course material by course teams, as well as by individuals, requires the most modern forms of project and personnel management, skills in systematic instructional material design and the development of effective and efficient products. In the same manner, organising the information flows necessary to support effective tutoring and counselling for distance learners is also a complex task, which should be implemented systematically.

The act of teaching is the deliberate and intentional initiation of learners into the world of human achievement, and learning as the result of communication from the teacher. In this sense, teaching is viewed as a reciprocal act which is impossible in the absence of learners. In conventional educational systems, this reciprocity is obviously possible because if students are not present in the classroom, then teaching cannot occur. However in distance education institutions, this facility for interface between student and teacher does not occur naturally since the teaching acts are separated in time and place from the learning acts. (The learning material used by the student could have been developed several years ago.) Moreover, the developers of the study materials and those who may be using it to teach are not necessarily, or even usually, the same persons. The study materials that are developed belong to the institutions and teaching becomes institutionalised. Therefore learning is the responsibility of learner although part time counsellors and coordinators are usually available as part of the Institutional system to support the learners in their learning process.

3.2.3 Characteristics of Distance Learning

The characteristics both of the learners and of the institutions, suggest that the nature of a learner's learning process is different in distance education.

The limited face-to-face contact with teachers and other learners makes learning the responsibility of the learners to a greater extent as compared to the case of conventional learners. The identification of difficulties and problems areas in the content have to be taken up by the learners and remedial help sought from tutors and/or counsellors.

To deal effectively with the required outcomes learners, must also develop appropriate strategies and/or study skills. While some learners may already possess the requisite skills, others would need help to acquire cognitive or affective skills (the latter is particularly true in the case of learners with a

previous history of educational failure) since fear, phobia, frustration, anger, or some other emotional reaction to the act of learning is often a resultant outcome). Recognising the fact that the onuses of learning lies with the distance learner, certain forms of learner support services play a vital role in distance education programmes.

3.2.4 Characteristics of Distance Learning Materials

Self-learning materials play a vital role in distance education. They are in the form of printed packages or in the form of teaching learning systems operating through a network of devices like audio tapes, video tapes, workbooks, assignments and computers. Whatever their form or mode of presentation, they have certain common features. First, they require the student to focus his/her attention on limited amount of material at one time. Secondly they require him/her to respond in some way to each segment of material. Thirdly, they give him/her immediate knowledge of results. These three features constitute the learning cycle. Every student is thus kept engaged in the learning cycle and goes through a series of learning experiences as he/she completes one cycle after another. Activities in which the learner is required to engage at each step are selected and ordered on the basis of empirical tests. The steps in self instructional packages are tested on samples of intended learners and are revised if necessary, so that they contribute to the students' learning. The strength of the self-learning materials thus resides not in the learning packages but in the rigorous process of their development, tryout and validation.

Most of the distance learning institutions send printed course materials in a self-learning format to their students. These materials present the subject matter in the form of interactive instructional steps. Each step contains some information followed by Self-Assessment Questions (SAQs). The student is required to read the information given in a step and then answer the SAQs, after which he/she is required to check the answer given in the answer key, and if his/her answer is right move on to the next step. If not, he/she is required to read the subject matter to clarify his/her thinking and then do the question again. In fact all the self-learning materials are supposed to teach all the intended capabilities to the target group of learners. But still some students are not able to fully learn all the subject matter. After responding to the SAQs and checking his/her responses, a student knows what points he/she has mastered and on what points he/she needs further clarification is needed. One important task of the distance learner is to identify all the difficult concepts which he/she has not been able to master from the self-learning materials. He/she are required to make a list of these difficult concepts and should raise them for clarifying these points from the tutors in tutorial sessions. It will thus be seen that despite attempts to simulate classroom situations and build the teacher into the self learning text, the materials remain finite in their character and they cannot go beyond a point. On the other hand learner needs are infinite in their variety and therefore self instructional materials become inadequate in catering to these needs. In order to deal with these variations, the role of additional support should not be underscored.

Check Your Progress 2

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of this unit*

What are the main features of distance education which are primarily responsible for the need of learner support services in distance education?

.....

.....

.....
.....
.....
.....
.....
.....

3.3 ENHANCING CURRICULAR TRANSACTIONS

There is growing acceptance of the perspective which states that the essential transaction in distance education is learning, not teaching. The learner support services and the designing and development of self instructional materials would be ineffective if this was not accepted. Learner support services should try to fulfill the needs which are unique to distance learners, and to promote the culture of learning against that of teaching.

Unlike the student in the formal set up, the distance learner's access to teacher(s) is limited. Consequently he/she has to depend more heavily on the course materials – print and other media. To compensate for the lack of interaction between the teacher and the student, the materials developed have a conversational style and help the learners feel that they are interacting with the writer and carrying on a dialogue with the text. The material helps in improving the reading, skills of the student.; This is important since the lack of effective reading and study skills is one of the major reasons for learners' dropping out of distance education courses. Students, as active consumers of information, must have strategies to process, assimilate, and accommodate information. They should be able to relate new experiences to what they already know. Although this has to be done by the learner, teachers can help facilitate reading, and studying activities.

3.3.1 Reading Skills

Reading can be defined loosely as the ability to make sense of written or printed words. The reader uses the symbols to activate information from his/her memory and subsequently uses this information to arrive at a plausible interpretation of the writer's message. He/she is called upon to be involved in drawing inferences, recalling relevant experiences, constructing images of scenes and appreciating of meaning. A broad definition of reading states that is a process through which a reader brings meaning to, and gets meaning from, print and other media.

This implies that readers bring their backgrounds, their experiences, as well as their emotions into play in order to derive meaning from a text. In the face-to-face situation (e.g. a conversation), the speaker can be stopped and questioned/asked to provide explanations whenever required. On the other hand, difficulties experienced while reading have to be resolved by interrogating the text. Since the writer is generally not available for consultation, the text is the only reference and reading can therefore be described as an active interrogation of or interaction with a text. It has to be realised that the message that the writer wants to convey does not merely lie embedded in the text, waiting to be passively absorbed by the reader. Instead the reader with his/her background, knowledge and experience breathes meaning into the text so as to divide it into comprehensive chunks to suit his purpose. Thus the reader is actively involved

in getting meaning out of a given text. Reading is thus an interactive process in which the reader establishes a meaningful communication with the writer/author. The role and importance of the requisite reading skills for distance learners must not be underestimated. Reading can also be viewed as a total integrative process that includes the following three domains of learning:

- 1) The perceptual
- 2) The cognitive
- 3) The affective.

1) **The perceptual domain**

Perception can be defined as the meaning given to sensations or to the ability to organise stimuli on a particular area. A learner's background, his/her experiences and sensory perceptions, organise the stimuli confronted by the sense:-

Some of the factors which influence the process of decoding the written words and intersection with the text include:

- a) Motivation – often dependent on the attitudinal factor, this is the need to identify the unknown part or parts of a particular text board,
- b) Attention – the part/portion selected or attended to is more readily comprehended.
- c) Grouping of stimuli – recognisable syllables and other patterns for making optimal use of a limited attention span.
- d) Contrast – letter patterns that represent contrastive sound patterns are dealt with more readily,
- e) Feedback – a cyclic process which involves the application of the skills of word perception to the written word during silent reading.

2) **The cognitive domain**

Reading involves the interaction of the reader with the text, with the aim of understanding the message of the writer. This implies that reading is an act of thinking and requires a reader to spend at least as much time thinking about what has been read, as the time spent in reading it. When a reader does not follow this pattern, he/she is unable to optimize the benefits from reading.

Readers are required to work at different levels of cognition to comprehend what they are reading. They have to select, transform, organise and remember information. If the brain is an active consumer of information which interprets information and draws inferences from it as well as ignores some information and selectively attend to others, we are assigning an important and active role to learners, who have to take on the responsibility of learning from the instructional transaction.

3) **The affective domain**

The “affect” includes the influence of feelings, emotions, beliefs and attitudes. The perceptual process is influenced by affective factors – e.g. anger could distort perception and make us read “food” as “fool”. Interpretation and assigning of meaning are also influenced by our feelings and often even what we decide to read has affective influences.

The integrative nature of the reading process should serve to make the planners and designers of curriculum more sensitive to the development and transaction of material which gives due weightage to all the aspects of the reading process once developed.

Check Your Progress 3

- Notes :*
- a) *Space is given below for your answer.*
 - b) *Check your answer with the one given at the end of the unit.*

“Reading is an integrative process” – Substantiate this statement (in 10 lines).

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.3.2 Study Skills

Studying is considered the primary means by which learning – irrespective of the level of learning and the modes of teaching – takes place outside the classroom. This makes it imperative that all learning programmes pay adequate attention to developing study skills in their learners. The isolated and remote position (with regard to the institution and teacher) of the distant learner, in particular, calls for concrete compensatory measures to ensure optimal benefits for these learners.

Study skills can be described as the skills or strategies employed by a student to independently and efficiently come to grips with the study materials. Study involves the learner setting up goals and choosing methods, solving problems, performing experiments, going through tests, collecting information, and segregating facts from opinions or suggestions. If we focus our attention on developing adequate study strategies that would help distance learners deal with their programme of studies, we have to acknowledge the role played by the design of the distance-teaching materials towards this end. Some key features of the material are :

- 1) Appropriate questions
- 2) Non verbal aids – Diagrams, charts, tables etc.
- 3) Conjunctive features and glossaries.
- 4) Advance organisers
- 5) Sum up
- 6) Narrative style

3.3.3 Counselling and Tutoring

Improving the outcomes of curricular transactions in distance education does need to be planned intensively. The materials developed and the learner support to be provided play an important role in the successful implementation of educational programmes. The limited focus on teaching in distance education programmes, makes the role of tutoring and counselling very important inputs for the benefit of the learners in such a situation.

Educational counselling is the advice and encouragement that people need, in addition to subject specific support, to help them to be successful learners. It may be effected through educational planning and course choice, the development

of study skills, vocational guidance, steering through administrative systems or support in coping with the combination of part-time study, working and family life. Counselling may be the responsibility of course providers or tutors or may be provided by a specialist educational counsellor on assigned days in the local study centres.

The role of the tutor in distance education is much more than that of a conventional teacher. It includes face-to-face contact, setting assignments (through correspondence), providing detailed, comprehensive feedback, and helping the learners become oriented to distance education and to developing reading and study skills that they need in order to achieve self reliance and the ability to study independently. His/her core function is of course tutoring. The focus of tutorial interactions is to help the students to learn all the difficult concepts which they have not been able to learn from the printed study materials and other materials like audio tapes and video tapes. The main task of the tutor is to identify difficult concepts which the students have not understood and to clarify and interpret these concepts for them. For this purpose the tutor should have a complete knowledge of the course content he/she takes up for tutoring and complete grasp of the difficult concepts which are not generally understood by students. He/she should also have the skill to diagnose the weaknesses of the students and to develop a tutoring plan for completing the requisite portion in allotted number of tutorial sessions. In each session he/she should use his/her skill to interpret and clarify the content which has already been presented in the study materials but has not been understood by the students. In fact, he/she should have the skill to act as a study guide to help the students to take future courses of action; to consult the library and to use audio/video tapes etc. The tutor should also keep a record of the progress and activities of the students and monitor their studies. For this purpose he/she should have the skill to diagnose the weaknesses of the students and to provide remedial instruction. In addition he/she is required to advise the students to study their materials in such a way that they become well equipped to respond to different types of assignments like tutor marked assignments and computer marked assignments.

While tutorial interaction is subject-centered (centering around presentation, exposition, explanation, illustration, demonstration, and other pedagogical activities related to the course-content), counselling is learner-centered seeking to help learners identify their individual problems, the causes behind such problems and the ways means of overcoming or circumventing such problems so as to enhance the possibilities of effective learning.

The two activities of counselling and tutoring are essentially complementary, particularly in distance education. A good tutor has to be a good counsellor also since counselling is a part of the repertoire of activities of a good teacher. The role of the tutor is focused on academic interventions; while a counsellor has to deal with learners feelings and emotions. Cognitive and intellectual concerns are given due importance in most educational programmes, whereas the emotional and effective concerns are often neglected or are cursorily dealt with. In order to enhance the curricular transactions and the outcome the need to focus on both these aspects has to be recognised, in particular by distance education institutions.

Check Your Progress 4

- Notes :*
- Space is given below for your answer.*
 - Check your answer with the one given at the end of the unit.*

What is the role played by counselling and tutoring in improving curricular transactions in distance education programmes?

.....

.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

3.4 INSTITUTIONAL MECHANISMS

So far we have examined the problems faced by distance learners and identified some measures that provide support to the individual learners. Now let us move on to examining the institutional mechanisms which are in place to provide the help and support required by the learners. As mentioned in Unit 1 of this Block, a systems approach to instruction leads us to weigh the needs and objectives against the resources available. Similarly a cost-benefit analysis of the different centres will help in the identification of the requisite system.

Chander (1996) considers:

The main objective of learner support services is to motivate students towards continuous learning. These services shall provide such facilities as to enable the learners to feel important and equal to students of the conventional institutions. The other objectives are:

- i) to provide all the information that is sought by the student;
- ii) to encourage students to make full use of all facilities available in the University;
- iii) to stimulate students to assimilate what they learn;
- iv) to provide necessary counselling to motivate students; and
- v) to create a climate of friendliness among the students, the faculty and the administration.

A closer look at the structure and functioning of different institutional settings will serve to highlight the role played by each institution in improving the outcomes of learning.

3.4.1 Study Centres

In distance education or open-learning institutions learner support services are established with the help of local centres. One kind of local centre is known as a study centre. A study centre is part of an overall system of support for learners. This system includes basic support contained alongside the subject matter within the self instructional materials. A study centre is a place which is regularly open for the attendance of learners, who may come for seminars, private study or individual meetings with a tutor or counsellor or to meet other students.

When a distance education institution sets up a network of study centres it has to decide the criteria it would follow for locating them. The proportion of learners who would attend is generally a major consideration. Another consideration

is the possible frequency of such meetings. To serve the requirements of the learners, a study centre needs some equipment and facilities such as:

- Books (course texts, reference books, background reading books).
- Laboratory equipment and supplies for science subjects and equipment and supplies for any other subjects with a practical component.
- Audio-visual or computing equipment (T.V. sets, video players, radio sets, audio cassette players, language lab. equipment, slide projectors, microcomputers etc).
- Information leaflets (on the distance teaching institution and its facilities, on career possibilities for grade etc).
- Basic office equipment – word processors.
- Classroom equipment – overhead projector, photocopier, check board etc.
- Stationary and office supplies.
- Cupboards and filing cabinets.

Study centres are generally equipped with only of few a these items. The requisite equipment, depending on the function of the study centre, can be placed in individual centers.

The staffing pattern at the study centre mainly comprises part time staff and includes the position of a coordinator who has administrative and supervisory responsibilities.

The main functions of most study centres include tutorial sessions, group and individual counselling, prouision of access to institutional resources (such as library, media), contact with other learners, and some administrative activities to complement or supplement the task of the central institution or the regional centre. These centres generally serve to provide the critical interface between the distance learner and the institution.

Check Your Progress 5

*Notes: a) Space is given below for your answer.
b) Compare your answer with the one given at the end of the unit.*

What is the role of a study centre in improving the outcomes of curricular transactions?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.4.2 Regional Centres

For the organization of operations in distance education, the role of regional centres is intermediate one, talking between that of the central institution and that of the local study centres. The regional centres are generally established for greater administrative efficiency and are meant to serve as a channel of communication between the central institution and the local study centres. They also serve as sub-offices of the central institution and act as resource centres in the respective regions.

The principal functions of the regional centre can be broadly classified under three heads:

- a) Academic Activities
- b) Administrative Activities
- c) Promotional Activities

a) **Academic Activities**

The academic activities of the regional centre encompass functions pertaining to admissions, evaluation, student records, selection and orientation of academic counsellors, launching of new programmes, research and development of academic programmes as per identified areas of special interest/concern to the region, organisation of academic seminars and workshops, monitoring of counselling and assignments, conduct of intensive contact programmes and maintenance of library services.

Distance educators all over the world are convinced of the view that regional centres should become academic centres rather than administrative units carrying out only semi-academic and coordinator functions. The academics in these centres are in a good position to provide feedback information to course teams on:

- i) the areas of difficulty faced by learners,
- ii) the points which need further explication/elaboration and
- iii) the problem areas.

Such feedback is an essential aspect of the process of helping course teams to produce courses which are better designed to deal with student requirements.

The regional centres have an important role in counselling. They can act as reference points (from study centres/sub study centres) for serious problems, sometimes resolving the problems themselves, sometimes sending them to the central institution. Organisation of summer/residential schools, field work, and laboratory work for the benefit of the students who are geographically widely dispersed or whose numbers are low.

b) **Administrative Activities**

The administrative activities of the regional centre include organising the operations of the study centres and the teaching that is conducted in them at the local level. The appointment of staff at the regional and study centres, maintenance of service records, purchase and maintenance of furniture and equipment, financial management of the regional centre, library records and the preparation of budgetary estimates etc.

c) **Promotional Activities**

Promotional activities at the regional centres include ensuring adequate publicity of the system, development of suitable publicity material, establishing contacts

and links with various institutions and voluntary organisations with the region, participation in book-fairs, radio, television and press interviews, organisation or public seminars, symposia etc, and in the open-learning/distance education system, these deficiencies include visits by regional director and assestart regional director to institutions and organisations and liaison with state government and voluntary agencies.

3.4.3 Other Centres

Sub-study Centers

Sub-study centres are established within the area covered by a regular study centre with a view to providing academic support to the learners who may not for various reasons, conveniently avail them selves of such facilities at the regular study centres. For administrative purposes, such centres remain attached to the regular study centre and function as a part of it.

A sub study centre can be established when there is:

- a) a concentration of learners in a particular area at a considerable distance from the regular study centre,
- b) an institute/organisation in the area willing to provide rooms for counselling and, if possible, audio-visual equipment for the use of the learners,
- c) qualified staff available in the area.

Some of the main functions such centres can take on include:

- Organising counselling sessions
- Holding assignments
- Conducting examinations.
- Disseminating information about the institution and its programmes to people in the area.

Work Centres

Work centres are established for conducting programmes with specific practical components which may require professional expertise. These work centres function under the administrative control of the study centre to which it is attached. Some of the functions of a work centre include:

- Conduct of practical/field sessions and examinations
- Organisation of counselling and audio-video sessions
- Assignment handling
- Feedback/quality control
- Infarcation to students
- Providing access to workshops/apparatus/computers/site equipment/ drawing board/technical library.

The responsibility of running a programme-specific work centre usually rests with an academic counsellor who is generally appointed on the recommendation of the Head of the host institution.

The establishment of work centres or sub-study centres allows for more personal contact programmes which generally serves to improve curricular transactions.

Check Your Progress 6

- Notes:* a) Write your answer in the space given below.
b) Compare your answer with the one given at the end of the unit.

What are the different institutional mechanisms/systems which provide support to learners in a distance education

.....

.....

.....

.....

.....

.....

.....

.....

3.5 LET US SUM UP

We began this unit with a definition of learner support services and examined the need for these services in a distance education programme. We also briefly examined the main characteristics of i) the distance learners, ii) the distance education institution, iii) the learning process in distance education and iv) the distance learning material, all of which further help in clarifying the need for learner support services. Having recognised the need for these services, we moved on to discussing the role of developing reading and study skills and tutoring and counselling in improving the curricular transactions.

Finally we identified the institutional mechanisms which have been established to provide support to learners. The different functions of regional centres, study centres, sub-study centres and work centres were presented.

3.6 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

Conventional System	Distance education system
<ul style="list-style-type: none"> ● Learning is a full time and major activity. ● The learner remains in one role and continues to retain membership of a learning institution. ● The learner belongs to an institution. ● The learner is usually young. 	<ul style="list-style-type: none"> ● Learning is a part time secondary activity ● The learner generally returns to a role he/she had given up sometime ago. ● The learner is a member of many institutions, most of which (e.g. work, family) take precedence over the institution which provides or offers the courses. ● The learner is usually an adult.

<ul style="list-style-type: none">● The learner is in easy contact with fellow learners.● The learner has easy access to institutional resources.	<ul style="list-style-type: none">● Contact with fellow learners may not be easy● The learners contact with the institution is infrequent and often takes place across a distance.
--	---

Check Your Progress 2

The main features of distance education programmes which necessitate the development of learner support services include:

- 1) Characteristics of distance learners – Limited time commitment, previous educational experiences which have long-tasting emotional influences, diverse backgrounds which influence allegiance to the current institution, isolation from other students and from the institution, limited access to institutional resources.
- 2) Characteristics of distance education institutions – Their remoteness, complexity, functional diversity, separation of both time and space functioning with regard to teaching acts and learning ones, etc.
- 3) Characteristics of distance learning-focus on self-study, strategies and skills developments.
- 4) Characteristics of distance learning material-self-instructional nature of materials, rigorous process of development, trialling and evaluation.

Check Your Progress 3

When we read we integrate the three domains perceptual, cognitive and effective. In other words, we can say that when we read we select, transform, organise, remember and react to the information available in the reading material, in accordance with our attitudes and needs. Further, when we read our experiences and sensory receptors organise our responses. Eye movements, for example, influence and control what we perceive from the text. As all the three domains are activated during the process of reading, it is considered an integrative process.

Check Your Progress 4

The role of tutoring and counselling is of vital importance in distance education programmes. The tutor has to focus on academic interventions while a counsellor has to deal with the emotional ramifications of a learner's problems. While tutorial interaction is subject-centered, counselling is essentially learner-centered, seeking to help learners identify their individual problems, the causes behind those problems and the means and ways of overcoming or circumventing such problems so as to enhance the possibilities of effective learning.

Check Your Progress 5

A study centre is a part of an overall system of support for learners. It is a place which is regularly open for the benefit of learners. The main role of these centres is to organise tutorial and counselling sessions with groups and individual learners, provide access to institutional resources such as libraries, audio-video play facilities (if possible) and contact with other learners, all of which serve to enhance the outcomes of curricular transactions.

Check Your Progress 6

The institutional mechanisms which have been established to provide support to learners in distance education programme include:

- 1) The central institution – which prepares and provides all the instructional material, organises summer schools and residential courses, organises and conducts examinations, appoints and monitors academic counsellor and tutors, handles special cases and individual requests for advice and providing variety of information and study advice.
- 2) The regional centre – teleconference sessions, organises seminars at the regional level, supports the local study centre and the counsellors and advisors at it etc.
- 3) The local study centre – provides group and/or individual sessions of tutoring and counselling, arranges regular contact between learner and tutor, has a reference centre for problems, use of library, media etc.
- 4) Other centres such as sub-study centres and work centres – for particularly looking after the practical component of courses and providing access to certain remote clusters of learners.



UNIT 4 ROLE OF DISTANCE TEACHERS IN DISTANCE EDUCATION

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Nature, Scope and Functions of a Distance Teacher
 - 4.2.1 Nature and Scope of a Teacher in ODL System
 - 4.2.2 Broad Functions of a Teacher in ODL System
 - 4.2.3 Academic Functions of a Teacher in ODL System
 - 4.2.4 Administrative Functions of a Teacher in ODL System
- 4.3 Broad Traits of a Distance Teacher
 - 4.3.1 Concept of WAGE and its Explanation
- 4.4 Concerns of a Teacher in Distance Education
 - 4.4.1 Concerns of Teacher in the Globalising Era
 - 4.4.2 Cultural Teacher
 - 4.4.3 Corporate Teacher
 - 4.4.4 Silicon Teacher
 - 4.4.5 Summing of the Models
- 4.5 Orientation of Teachers in Distance Education
 - 4.5.1 Gamut of Open and Distance Education
 - 4.5.2 ODL Teacher's Orientation: A Model to Discuss and Deliberate
 - 4.5.2 Summing Up the Model
- 4.6 Guidelines for a Teacher in Open and Distance Education System
- 4.7 Caution: Emerging Market Approach to Education
- 4.8 Let Us Sum Up
- 4.9 Answers to Check Your Progress
- 4.10 References
- 4.11 Glossary

4.1 OBJECTIVES

After studying this Unit, you will be able to:

- recognise the nature, scope and functions of a distance teacher;
- discuss the expected broad concerns and traits of a distance teacher;
- explain the skills expected from a distance teacher;
- discuss orientation of a teacher in a distance education as a model different from the conventional face to face teacher; and
- recognise guidelines stated by Distance Education Council for a teacher in Open and Distance Education.

4.1 INTRODUCTION

Any meaningful communication is an education, if it is written or produced in multimedia or in multiple media; then it is called Open and Distance Education

—Ravi Ayyagari and Rampelli Satyanarayana, 2014

In this unit we are going to discuss the role of a teacher in the open and distance education system of today. Open and distance learning (here after; ODL) is a fertile land for innovation, experimentation and creativity, where the role of the teacher is central to the creation of knowledge in a knowledge society. Here, we shall make an attempt to explain what a teacher does in ODL system and how the teachers teach when there is no face-to-face teaching.

While studying this unit, you will recall that Distance Education is a paradigm shift from the conventional teaching-learning system. The conventional face-to-face education system is teacher centered whereas the open and distance education system is learner centered. In face-to-face system of education, the teacher interacts with and instructs the students directly whereas in the open and distance education system, the teacher facilitates self-directed learning from a distance. The teacher in distance education undertakes various multi-faceted activities. In this unit, the discussed functions of the teacher are illustrative in nature but not exhaustive. The learners are expected to add to this list of functions based on their own reflective practices and lateral thinking. While discussing the expected skills, it is assumed that a teacher in open and distance education system is an expert both in his/her own discipline and in the distance teaching techniques i.e. the teacher is a discipline expert and also a system expert. This unit also makes an attempt towards orientation of teachers for realizing teaching at distance as a professional activity. This involves designing a learning package or module, its development and delivery followed by evaluation of the created system and assessment of the learners. Here, designing of the learning package or module is an active-process, its development is a pro-active process, its delivery is process active and the evaluation of the system and assessment of the learners is a post-active process. These four active processes are connected to each other through chain linkages and cyclic relationships, and cannot be detached from one another. This unit presents an academic exercise towards understanding the related functions of a teacher in open and distance education. It also aims at orientation of teachers working in the entire gamut of open and distance education. Finally this unit encourages an active forum to debate issues with an open mind. Open learning invites debates, shared views, observations, and criticism if any, also from the learned readers to improve upon the ideas and understanding of ODL system. The ideas expressed in this unit are thus an attempt to share knowledge from different areas for making education seamless and borderless and creating an aware and vibrant knowledge society and role of teacher in the globalising era of knowledge.

4.2 NATURE, SCOPE AND FUNCTIONS OF A DISTANCE TEACHER

Garg and Parakh (2005) rightly observed that the role of a teacher in distance education system is considerably different from that of a teacher in the conventional system. A clear perception of this difference is very essential to understand the range of functions performed by teachers in distance education system. A distance education teacher is not just a scholar or specialist in her/his discipline. S/He has to be distance educator in the first place, while also being a subject specialist or an experienced professional. This change in the role should get reflected progressively in the qualifications, methods of recruitment and the professional development of the teacher in the distance education system.

4.2.1 Nature and Scope of a Teacher in ODL System

It is difficult to define the nature and scope of a teacher in open and distance education. Teachers in distance education perform complex activities both individually as well as in a team. It is said that in face- to-face education system, the excellence of the teacher is recognised, where as in the open and distance education the excellence of the team is recognised. The individual excellence of a teacher combined with the team excellence is imperative in open and distance education system. In this scenario, the ODL teachers perform a variety of activities related to academic, administrative, training functions and work individually and as a member of a team.

Interactivity is the hallmark of the teaching profession in distance education. As we have already stated, any kind of meaningful communication is education and if it is written or produced in multi media/multiple media, then it is called open and distance education. In the words of O'Neil (2006) learning involves two types of interaction: interaction with content and interaction with the other people. The many communication skills required in distance education scenario are similar to those needed for effective classroom teaching. However, a distance educator's role requires a paradigm shift in perceptions of instructional time and space. The most important role of a teacher in distance education is to model effective teaching through well-designed instructional content and appropriate communication medium. A teacher carries out a variety of functions as a subject or discipline expert besides undertaking pedagogical and academic activities. S/ he also undertakes various administrative functions. These functions have been discussed in detail in the sections below.

ODL is a fertile area for innovation, experimentation and creativity. The ODL teacher engages with learners at a distance through self-learning print and audio/ video materials, multimedia packages, radio and television broadcasts, interactive radio counselling, teleconferencing, videoconferencing, face-to-face counselling sessions at study centres, CD-ROMs, and Web-based content delivery. An ODL teacher is a full time employee of the Institution. The teacher is responsible for design, development, delivery of a variety of programmes and courses suitable for heterogeneous learners as per their needs. S/he has to consider the needs of society, markets and emerging techno-managerial learning requirements of the society. Teachers in distance education system perform a large variety of activities to cater to the needs of knowledge society; without any inhibition they gather knowledge from all the available sources to provide seamless education for all.

4.2.2 Broad Functions of a Teacher in ODL System

A teacher performs complex activities in the ODL setup. The teachers are expected to play multiple roles in open and distance education (Kanwar & Pillai, 2001):

- Course team coordination;
- Discipline coordination;
- Programme/Course coordination;
- Curriculum development and instructional design;
- Competence in preparing self-instructional material;
- Organizing and controlling delivery of programmes and services;
- Proficiency in the application of multi-media technologies;
- Tele-counselling

One major criticism against the ODL teachers is that they perform a generalist job rather than a specialist one. Secondly, they are alienated from their peer groups (other subject or discipline experts). It is also alleged that in comparison with their peer groups, they appear to be de-skilled. Another criticism is that “the faculty in the distance education is not highly motivated and have become a junk over the years” (Goutham, 2000). This criticism is not valid and cannot be used to compare a teacher in a distance education system with a teacher in a face-to-face education system. When compared with face-to-face education system, distance education should be viewed as a paradigm shift. In fact the ODL system has moved at a faster pace due to which its programme content and delivery is more contemporary than that of face-to-face education systems. Thus within the distance education system, we find many new developments such as e-learning, online learning and blended learning and so on. The operation of distance education system is all together different in its nature and scope. This criticism is actually superficial in nature and cannot stand the reality from an operational point of view in the emerging knowledge society. Teachers in open and distance education system require a unique set of skills. These teachers are multi-skilled and integrate their knowledge in a wide range of course and programme designs. They develop educational programmes with the help of a diverse media (audio, video, graphics, text, animation, etc.) and a variety of teaching methods. Distance education strategy also includes experimenting and developing innovative new ideas along with appropriate delivery strategies to take education to people and places hitherto unreached. Finally, it is also essential to undertake periodical course and system evaluation depending upon the learning objectives and requirements.

4.2.3 Academic Functions of a Teacher in ODL System

In conventional classroom settings, teachers decide upon the methods and media to use and vary the methods and strategies according to the learner's needs. In open and distance learning the issue of ‘how to teach’ has to follow the service of instructional design very critically. Learning materials have to be prepared in advance and media to support these materials are pre-selected. The distance teacher performs many academic functions some of these are listed below:

- **Curriculum Development Coordinator:** The teacher acts as a curriculum designer and developer, evolving an appropriate delivery strategy. Moreover, the teacher is as instructional designer, and also an assessor and evaluator of learners, course, programme and the entire learning system.
- **Self-directed Learning Design:** This involves competence in preparing self-directed learning materials in their specific discipline.
- **Course Writer:** This function includes writing of units or modules for one's own discipline in Distance Education methodology.
- **Media Facilitator:** This function involves appropriate use of audio/ video, radio, Television, teleconferencing. The teacher also acts as an agent of virtual education or e-learning. This function requires proficiency in the application of multi-media technologies.
- **Course Editor:** The teacher in a distance education system also performs the function of language and content editor.
- **Counselling:** The teacher also provides Pre-entry and Post-entry counselling to the learners through face-to-face mode and through interactive media. Basic course related information is provided to the student through programme guide, prospectus, newsletters and e-mails and course websites. The teachers also carry out induction programmes (through face-to-face and teleconferencing) both at the Study centres and the Regional centres.

- **Guide:** The teacher guides, aids, advices and helps the distance learners by providing comments (or tutor comments) in their assignments. S/he thus helps to improve upon the learners' academic performance at a distance.
- **Trainer:** The teacher is involved in a number of capacity building activities such as orientation programmes, trainings and workshops designed to meet the curriculum requirements and the changing paradigm of various disciplines as well as open and distance teaching learning techniques at a distance.
- **Counsellor:** Various learning related and other problems of the isolated learners of distance education are addressed by the academic counsellor available at the study centres.
- **Promotional Activities:** This includes all activities aimed at promoting open and distance education in order to provide quality education for all.
- **Consultant:** A teacher in open and distance education system is also a trainer and a consultant for the distance educators of the future and other institutions interested in providing distance learning programmes.
- **Evaluator:** This function involves tasks such as setting of examination papers, checking of answer scripts, and performing the duty of an observer during examination.
- **Programme Evaluator:** This includes activities such as reviewing the distance education programmes on offer, providing feedback and modifying the existing programmes and finding the gaps between promises and performances.

4.2.4 Administrative Functions of a Teacher in ODL System

In an ODL system, proper coordination between the different units/centres/divisions is a must for the successful functioning of the entire system. Here both academic and administrative issues have equal significance. In case of learning material, the emphasis is always on achieving high quality standards as the material developed is open to praise and criticism by society at large. In addition to preparing instructional materials for the distance learners, the distance education teachers have to constantly monitor both administrative and academic activities. This is quite in contrast to the activities undertaken by the teachers in the face-to-face system. Hence, the teachers working for ODL have to further as full-time teachers in their institution/university. As such the administrative tasks performed by the teacher in distance education scenario can be summarised as follows:

- organisation of programme/course meetings with unit writers, editors, media, evaluators and so on
- production of Materials which involves proof readings,
- monitoring of admissions to review learner enrolment and retention.
- marketing and promotion of programmes for greater enrolments.
- verification of bills
- management of course budgets
- managements of records related to programmes.

As liaisoning with course delivery personnel is very important in ODL system, a teacher in open and distance education system also has to perform a liaisoning role. The academic staff involved in the course or programme delivery plays a

pivotal role in promoting programmes and courses made available through ODL in and around at the regional and local spheres particularly in the competitive educational market environment.

Check Your Progress 1

*Notes: a) Space is given below for your answer.
b) Check your answer with the one given at the end of the unit.*

What is the difference between a face-to-face teacher and an open and distance teacher?

.....

.....

.....

.....

.....

.....

.....

.....

.....

4.3 BROAD TRAITS OF A DISTANCE TEACHER

As has been stated earlier, the distance teacher is involved in complex activities and multiple tasks, which are both of academic and an administrative nature. According to Garg and Parakh (2005) a distance educator has to undertake multifarious activities, which require inter-personal communication and organizational skills, apart from proactive attitude towards change. The following traits are most essential in a distance teacher:

- Flexible mindset to work with different people.
- Passion for distance education.
- Good intrapersonal skills.
- Desire for constant updating of knowledge as a knowledge worker.
- Respectful for opinion and knowledge of others.
- Positive attitude for change.
- Able to work in a team.
- Usage of media and technology for supporting isolated learners learning.
- Flexible, accessible, and equitable are not preaching tools but are essential practicing tools of a teacher in ODL.
- Sound knowledge of the discipline and distance teaching techniques are a must.
- Excellent command over language, good communication and intra-personal skills.
- Familiarity with copyright /Intellectual Property Right (IPR) provisions.

- Knowledge of copy editing, proof reading and other skills required in preparation and production of quality instructional materials.
- Effective public relations skills are required as one has to deal with a variety of experts, course writers, editors, presenters and instructional designers.
- Ability to identify and gather knowledge and information from a wide range of sources, people and places.
- Sharing of knowledge and experience with others and respecting others views in collaborative and team efforts.
- Have critical reflections and can celebrate his/her awareness without favour and fear.
- S/he have concerned for culture, its retainment, market relevance to produce and able to convert knowledge into techno-managerial platform.
- *Passion* for distance education and a personality trait such as *Courage* to express issues with an open mind for learning.
- Willingness to work in a team with integrity irrespective of one's own framework and values.
- Willingness to be always *active* (as in Design Process) *proactive* (as in Development Process), process active (as in Delivery Process) and post active (as in Assessment and Evaluations Process).
- Desire to be a knowledge worker for a knowledge society. To put it in other words as Shameless learning for seamless education.
- Attitude for societal concerns, knowledge of market relevance and sound awareness of techno-managerial aspects of education.
- Realisation that the job at hand is to be undertaken as "*Karma*". Karma alone is an expression or manifestation of Dharma.
- All the functionaries in open and distance education, including the part time and full time teachers, are called counsellors. The theory of open and distance education lays immense emphasis on three traits for the counsellors in the ODL system.

4.3.1 Concept of WAGE and its Explanation

The counsellors should have an attitude of WAGE. Let us discuss the meaning of WAGE:

W: Warmth: A feeling

A: Acceptance: Accept the learners as they are without high expectations.

G: Genuine: in presenting the issues and integrity in exhibiting body of Knowledge.

E: Empathy: It is contrary to sympathy. Ability to understand and share the feeling of someone else as it is one's our.

4.4 CONCERNS OF A TEACHER IN DISTANCE EDUCATION

Distance educators must conduct learning transactions mindful of the burden of physical separation and technological requirements, as well as the perennial challenge of presenting content to stimulate learning. (Schulte, 2010) Therefore,

the competencies and commitment of a teacher are equally significant issues. Here, competencies refer to the necessary skills of a teacher whereas commitment is related to the concern for institutional growth and development. As discussed, the mind set plays an important role in any institutional development activities.

The distance-learning teacher is the common thread throughout the distance learning process. She must be certified for the appropriate grade level, is knowledgeable in her subject area, and is trained in effective distance education strategies (O'Neil, 2006). With regard to concerns, the teachers working for open and distance education need to have the capability and interest to generate the relevant ideas which can be translated into courses or programmes, within appropriate models of curriculum design, manipulating the available technologies to impart knowledge and distance. The market utility of the proposed courses or programmes should also be considered. Hence, a teacher should have social concern as well as skills to interpret market feasibility and to manage technology for teaching learning at a distance.

Now let us discuss the changing role of a teacher and his concerns in the globalization era.

- The distance teacher for the 21st century has to be a specialized professional equipped with multiple skills and qualities. S/he needs to build up a career in distance education (Dhanarajan, 1996).
- S/he has to be both specialist and a generalist, i.e., specialist in his/her own discipline and have generalist skills in the system of distance education.
- S/he should be a self-learner competent enough to use all the available media and methods to improve upon or add to his/her existing body of knowledge.
- S/he has to have reading skills to increase the present dimensions of one's own discipline and have an idea of the expectations from a distance learner.
- Since a teacher in distance education has to undertake the task of writing, hence possessing writing skills is an important factor in distance teaching profession. Writing is both a skill and an art which needs to be developed for reducing the distance between teacher and learner.
- S/he has to develop editorial skills, where s/he can use economy of words and expression. Editing is an art for imparting education to heterogeneous learners.
- S/he needs to work with a wide variety of people in a team and associate with different types of people within and outside the organization. This requires increased tolerance of different views, an ability to acknowledge other people's excellence and good team building skills, while maintaining the institutional goals and self dignity at the same time.
- S/he should always aim at meaningful growth and development of both the individual and the institution. It has to be remembered that concern for the institution ultimately leads to individual growth.
- S/he should have clarity about the job market in order to design and develop suitable courses for divergent learners keeping in view liberalization, privatization and globalization and its influence, effects and limitations on a developing country like India.
- S/he must have strong conviction and a flexible personality to work with a variety of people. In addition to being accessible to people and places, there should be respect for isolated learners and a strong commitment to educational equality.

- S/he should be willing to share knowledge and experiences with others and have respect for others' views, experiences and self.
- S/he should be a good trainer and should be willing to develop trainees as future trainers.
- Training is perceived as capacity building activity, capacity building activity is capacity sharing activity and capacity sharing activity is caring activity to be taken up with love, faith, affection and confidence in the training and trainers.

Finally, most important factor is that the ODL teacher's job starts and ends with the care and concern for the needs of isolated distance learners.

4.4.1 Concerns of Teacher in the Globalising Era

Placing the concern for a teacher is difficult task. It is more in the open and distance education. Society is undergoing in an aggressive transformation in all spears of life. Primary objective of a teacher to transact curriculum based on its instructional design strategy in face to face education system, it is self directed learning design at Open and Distance Learning Institution. Various learning designs are evolving in the globalizing era of education. We have been witnessing online blended models of educational designs at ODL and also at face to face educational system in the changing times. As we have discussed that the change is the only constant factor in all walks of life where education and teacher's role is also not exceptional. If we keenly observe the historical transformation of society and its values, we found heavy paradigm shift in each phase of history. Here we are making an attempt to explore models to understand concerns of a teacher in each historical phase namely; ancient phase is a cultural society where the teacher is a cultural agent of society, the concerns of a teacher is cultural transformation of values from one generation to next generation. This phase considered to be a cultural society where the role of teacher is to maintain retain and propagate the values of society, in this phase the teacher considered to be cultural agent of the society, the teacher is considered to be the *Cultural Teacher*. The 2nd phase, it is considered to be *corporate teacher* stage where education fulfills not only values of society but also the market needs, this phase can be considered as corporate phase. The role of teacher is to fulfill the corporate requirement and the teacher is considered to be a *Corporate Teacher*. The 3rd phase particularly in the 21st century globalising era, after ICT interventions and explorations the educational skills demands transformation of knowledge and skills into a techno-managerial activity. It is other wise called techno-managerial phase (Silicon Phase). The role of teacher is not only retaining the values of society, producing skills for a market and above all transforming all the knowledge and skills into techno-managerial activity this we witness with a aggressive knowledge liberation (that is open education resources or in the form of Massive Open Online Courses MOOCS. This education movement made knowledge everywhere and anywhere). Here the role of teacher is equated with a *Silicon Teacher*. Let us deliberate these cultural, corporate and silicon teachers role in detail.

4.4.2 Cultural Teacher

In the ancient society education is only concern with the society values and retain them for future generations, in such society, the concern for education is cultural transformation of values from one generation to next generation. In this phase the role of education is to fulfill the requirements of cultural society and the role of a teacher is cultural agent of the society, otherwise one can call him as cultural teacher. The Institutional arrangement is *Gurukula Sistem* of Education or the *Madarsa* system for the Musilim community and *Church* as a central point

of education. Here the education was not accessible to all. Education for all is not in their agenda, the society was functionally divided to produce a product for social requirement. The education aimed at privileged few elites of the society.

4.4.3 Corporate Teacher

The medieval age is considered as the age of reason. This was possible with the renaissance. Renaissance gave a birth to new man with new reason. This reason subsequently paved the way for industrial revolution in the 19th century. This age insisted education for all. Particularly after industrial revolution, the society has undergone a shift that education is not only maintain and retain its values but also aimed at skills to produce productive forces, this can be the capitalist feature of the society. In this phase the role of education is to fulfill the requirements of cultural society as well as market needs by producing commodities for the market. The Institutional arrangement is in mixed mode such as centres of excellence institution as well as private public institutions flourished for the people. The role of a teacher is not only cultural transmission and also an instrument to raise productive forces. This phase aimed at not only knowledge but also producing skills to boost a production process. These processes saturated by 19 century industrial revolution. The concern for education for a teacher is to maintain and retain cultural values and also boost the productive process. The role of teacher considered to be an agent of producing the skills for market. The teacher considered to be a corporate teacher.

4.4.4 Silicon Teacher

This is another development with the intervention of Interactive Communication Technologies (ICT). The word Silicon denotes “Techno-managerial Learning/ activity”. Here in this context the teachers concern is not only to maintain the values of the society and increase the productive forces and above all transforming all the skills into techno-managerial activity. It is more so converting all these into techno-managerial learning syndrome. Today knowledge is seamless, accessible and emphasis on self-learning. All these possible only with the techno-managerial learning, otherwise one can call it silicon phase. Here the teacher’s role is to retain the values/culture, corporate needs and above all, converting every thing in to techno-managerial learning. There is no institutional arrangement arrangements in this learning phase, it is seamless, accessible and provide equity to all the people of the globe. This phase made knowledge as seamless and borderless.

4.4.5 Summing of the Models

As we have discussed three models of teachers in each historical phase, which make us to understand the concerns of education and teacher. In the 20th century particularly in globalizing era, the education is an instrument for socio-economic change by integrating societal values, market requirement and also techno-managerial needs to access needs of the people and productive process. The technology is a necessary evil in its own context. It is a necessary because it can make knowledge flexible, accessible and create equity in the social distribution process. It is evil when technology is used unsocial activities. In the 21st century the teacher needs to have cultural values for the society, skills for marketing and boosting the productive process and also converting them into techno-managerial needs. A blended approach of all i.e. social values, market needs and techno-managerial skills must be aimed at. It is appropriate to quote Peter Ducker said that the educated people are knowledge workers for the knowledge society in the 21st century. The concern for education needs to meaningfully blended with Interactive Communication Technologies (ICT) and Indian Culture and Tradition (ICT). These needs and concerns are to be explored by modern teachers.

Check Your Progress 2

*Notes: a) Space is given below for your answers.
b) Check your answers with those given at the end of the unit.*

i) Describe the concept WAGE?

ii) Explain the trends in the globalisation era in Education?

iii) Define cultural teacher in one or two lines?

iv) Define corporate teacher in one or two lines?

v) Define silicon teacher in one or two lines?

4.5 ORIENTATION OF TEACHERS IN DISTANCE EDUCATION

4.5.1 Gamut of Open and Distance Education

We have already discussed the gamut of open and distance education in MDE-411; Let us recall the figure given below which explains the gamut of open and distance education.

Gamut of Open & Distance in Educational System

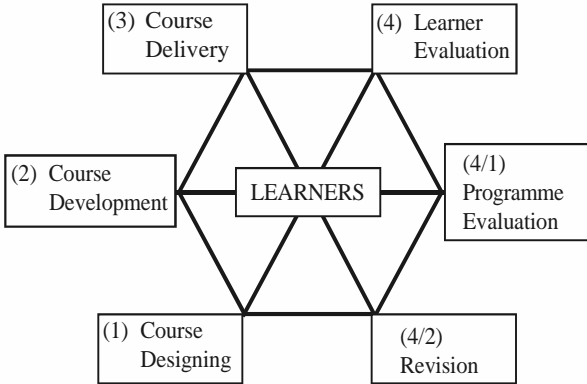


Fig. 4.1: Gamut of Open and Distance Education

Source: Rampelli Satyanarayana, 2004, Handbook 9 student support services and open learning STRIDE

The gamut of open and distance education is explained in the above figure as course design, development, evolving an appropriate strategy for delivery or its transactional strategies, undertaking learners /course evaluation/programme evaluation and finally periodical undertaking of revision of course/programme. These are the major activities of open and distance education.

All the above activities have cyclic relations and chaining linkages, which cannot be detached from one another. The overall emphasis and importance is given only to the learners in all ODL activities. Hence it is said that the gamut of open and distance education is the gamut of its learners and their support services. The same gamut we shall correlate to the orientation of teachers in the open and distance education in the next section.

4.5.2 ODL Teacher's Orientation: A Model to Discuss and Deliberate

In general, *teaching* has evolved from *vocation* to *occupation* to *profession*. Very little has been said about the orientations of the teacher/people in an educational organization. Here, we are making an attempt to explain a model on the basis of one given by G. Narayana, Industrial Advisor, Gujarat & Maharashtra and visiting Professor of IIT, Ahmedabad, in his writing titled "Noble Leader; A Journey Through Dhammapada". This model is a modest attempt aimed at understanding the orientation of people working for the knowledge society. This model is also applicable/ relevant/nearly suitable/befitting to the tasks of a teacher in open and distance education system. Its focus is on the moral and ethical basis rather than the theoretical basis. Here an effort is made towards a neutral orientation irrespective of the ideological/values orientations of teachers. This model can be viable for all the teachers, including those from the open and distance education system. The concepts expressed here are active, pro-active, process-active and post-active (Narayana, 2001). Let us debate on these issues in context of their relevance and applicability. These concepts are being used here to denote the work/job of a teacher in an Open and Distance Education system.

Orientation	Stages of activity	Nature of activity	Required Justification
Active process	Designing stage	Generating ideas stage	Needs assessment and justification
Pro-active process	Development stage	Translating ideas into action	Using proper media and methods
Process active process	Delivery stage	Evolving the appropriate delivery strategies	Identifying delivery channels
Post-active process	Evaluation stage	Learner's evaluation & programme/course/ system's evaluation	For awarding degrees & obtaining feedback for system

Summary of the above table:

Active process is a designs stage process. Pro-active process is a development stage process and involves translation of design into development. Process-active is a delivery stage process and is mainly concerned with evolving an appropriate delivery strategy. Post-active process involves assessing promises and performance of an educational product and its value. It also includes evaluation of learners to award degrees. All these processes have chaining linkages to each other and therefore, one cannot be detached from another.

i) **Active process**

Active process is the initiation of the process of generating an idea. It is the designing/stage to develop a programme or a course. It involves the planning process which means “thinking before doing”. All aspects of the designing social relevant products are debated during this stage. The active process is also a stage for inclusion, sharing of views with peers, thinkers, experts and others for designing the product for achievement of intended learning objectives. During this process learning experiences of many heterogeneous groups are accommodated so that a balanced relevant programme may be given shape. The role of teacher is central to this exercise as teachers have to implement this programme.

ii) **Pro-active process**

Pro-active process is translating ideas into development. This is a stage for translating ideas into a final product or a package. Development of curriculum is considered a pro-active process. It implies evolving a process of making a product. The work is undertaken by a team of experts by following planned outcomes in the curriculum development process. It is a process where humans, material, media, and method are integrated. This approach is appropriate and desirable to ensure that the ultimate user i.e. the learner is benefited and empowered. It views the entire value of the end product against the designed objectives. Various media and methods are adopted at this stage to suit designed instructional strategy of a particular Programme/course. It involves a scientific approach to develop a programme or a course.

iii) **Process active process**

Process active process is evolving appropriate strategies for delivery of programme or course. This is the process of translating product objectives to the end users and involves the delivery stage of a course/programme. In face-to-face education scenario, this is reflected by the classroom teaching-learning process, whereas in the open and distance learning situation, it is called ‘learners support system’. Learner support system comprises all those activities which have concern for empowering isolated distance learner those are broadly pre-entry counseling (before taking admission into ODL system), post entry counseling (about the institution and teaching learning methodology), to clear the doubts in the self learning material face to face counseling sessions and through news letters the information and knowledge is given to learners to pursue further studies through ODL system. The objective here is to reach different places, people with the support of various media and methodology such as print, audio, video radio, interactive radio, teleconferencing /video conferencing and educational satellites. The objective of using various media is to reduce the distance between the learner and institution. The role of teacher is multiple and multifaceted one in which s/he has to use blended learning strategies for knowledge delivery mechanism and have skills to handle various media to educate masses/millions. Such initiatives in teaching-learning process require total re-orientation of the teaching learning methodologies either in face-to-face situation or in learning at distance. The teacher is required to have a sound knowledge base and also have sensitivity towards knowledge level of the learners/students. While teaching, the teacher has no limitations except learning levels (age and experience levels) of the learners. The aid, advice and help that the learner receives from the distance education institution helps the learner to evolve as an independent learner.

iv) **Post-active process**

Post-active process is assessment or evaluation to provide feedback on the promises and performance of programmes/course/system and learner’s evaluation for awarding degrees. This activity is carried out for two purposes – i) firstly,

for evaluating the learner's learning outcome for award of the degree, and ii) secondly, for evaluating the programme/ course/ system to get feedback to reform and review it. It also helps to evaluate the process in terms of its design, development and transactional strategy. This involves overall judging of the value of an idea, product and its process. An attempt is also made to gauge the learner's satisfaction and his/her systematic performance levels. It is a research and development process by which the system gathers feedback to undertake a review of the entire gamut of design, development and transaction. It provides feedback for undertaking revision of curriculum; this may be done by undertaking the base line research with baseline data to meet the institution's vision and mission statement. This process reduces/minimizes the gaps between promises and performance and thus helps to improve the system.

4.5.3 Summing Up the Model

While inducting the people into the open and distance education system, professional tasks such as designing, developing and evolving appropriate instructional material and delivery strategies, and its assessment and evaluation are extremely crucial. Appropriate professional skills are required to carry out these critical tasks. The skills are imported with rigorous training strategy right from bottom-up to top-down. In this kind of process, the newly joined teachers learn and acquire the required functional traits during their training period. They need to work at the study centres and regional centres to interface with learners and their problems so that they are able to better design and develop course. Such training also enables to make them aware about the grassroots realities in open and distance education. In the initial period, they also need to be familiar with the printing technology to overcome any difficulty in production of quality materials.

Check Your Progress 3

Notes: i) Space is given below for your answer.

ii) Check your answer with the one given at the end of this unit.

Write one line explanation to active, pro-active, process active and post-active.

.....

.....

.....

.....

4.6 GUIDELINES FOR A TEACHER IN OPEN AND DISTANCE EDUCATION SYSTEM

Distance Education Council (former DEC) presently it is called Distance Education Bureau (DEB) has laid down a normative framework of work norms for the teaching staff/academics of the open and distance education system. These also include guidelines for developing flexible work norms on par with the UGC work norms for teachers. However, there is a strong need for developing separate work norms for other categories of academic staff, who are working at delivery mechanism, planning co-ordination, research and other areas in the open and distance educational system.

According to Distance Education Council (former DEC), the nature of teaching work in open universities is, in its essence, quite similar to the teaching work in other institutions of higher learning. The specific job requirements of teachers in the Open University System however have relatively larger operational

components. Within the parameters of higher education in general, the key elements of teaching work in Open Universities may be listed as below:

- Generation, Dissemination and Advancement of Knowledge i.e. planning and designing of the Programmes/Courses;
- Development of learning Material (Print, Multi-media);
- Adaption/translation/transliteration of Learning Materials-Maintenance and Revision of Course /Programmes;
- Design, Establishing and Monitoring Student Support Services;
- Evaluation and Related work;
- Coordination and Administration;
- Research – Systemic and Discipline Based; and
- Extension of Education (DEC-2000,p.3).

Further DEC Guidelines also lay emphasis on the work load issues. It mentions that the work load of a teacher can be determined on the basis of the principal activities or a cluster of activities performed in the Open University system. The time needed for each activity can similarly be worked out on the basis of average working hours to be spent on each activity. According to DEC...

- The teacher shall annually spend 1200 working hours (on an average).
- The work load of every teacher shall be forty hours a week.
- Every teacher would be available in the university for academic work and for other works of the university on an average of five hours on each working day.

The above classification of work load appropriates into 8 credits per year which is equal to 30 study hours for distance learners.

The guidelines also specify that every teachers shall perform the core function pertaining to the discipline i.e. dissemination and advancement of knowledge as decided collectively by all the members of the discipline/unit/divisions etc. as the case may be. Further, the document mentions that “Examination related work should also be treated as an integral part of teacher work and due weightage may be given to this workload in the overall work plan (DEC, 2000, p.4). The examination work includes paper setting, moderation of papers, elevator of the answer scripts, and authentication of final examination results and to maintain the quality assurance, the teachers are periodically required to undertake examination centres visits/inspections.

In the spheres of monitoring, it is mentioned in the DEC Guidelines that “Monitoring is to be viewed as a mechanism to see implementation of work plan. This mechanism should be participative and institutional accountability should be integrated with the monitoring scheme”.

Some of the measures recommended are as follows:

- Work plans, at different levels, may serve as bench mark for reviewing the progress of all the components units of Schools/Centre etc.
- A consultative mechanism involving all teachers at the level of the discipline shall help in the proper execution of the plan.
- For this purpose the discipline coordinator should organise meetings and coordinate the preparation of the work plan.

- Periodic reviews of the work plan should be undertaken to identify bottlenecks and obstacles in the execution of the work plan.
- A mechanism to review shortcomings in infrastructural facilities and make the necessary adjustments at the operation level may be created
- It is expected that the University shall provide adequate additional human resources in situations where the work load of a discipline/division exceeds the quantum as per the work norms.
- It is also expected that the University shall make available adequate infrastructural support needed by the disciplines for completing their annual work plans. (DEC-2000 p.5)

Note: The above guidelines are mere suggestive in its nature.

Check Your Progress 4

Notes: i) Space is given below for your answer.

ii) Check your answer with the one given at the end of this unit.

What are the guide lines given to the work norms of Distance Education Council (DEC)?

- i)
- ii)
- iii)
- iv)

4.7 CAUTION: EMERGING MARKET APPROACH TO EDUCATION

The theoretical debate in distance education right from Occto Peters evolve that distance education is more a service in the market economy. In a market economy, the role of education has transformed greatly with commodification of education. The market approach to education insists on viewing its learners as customers or service seekers. Whether one agrees or not, education is fast becoming a commodity. For a teacher this implies rendering of effective and efficient services to the learners. Learner are almost like a ‘customer’ in market economy i.e. if s/he is not satisfied with the services of an educational institution, there are many vendors who are competing for providing effective, efficient and quality education. Hence, it is not the product that is important, on contrary, it is the “after sales service” which is the important and determining factor, where providing effective services to its learners denotes the quality in a competitive era. In a market approach to education emphasis is on service to the learners, and in ODL system the entire focus is on the isolated learners, hence it is said that *the gamut of open and distance education is the gamut of learner’s support service*. In the market approach to education, the programmes an educational institution designs and develops is not always important but its delivery strategies are very important. This is called “After sales service”.

Let us briefly define, relate and understand globalization and emerging educational technologies. Globalization is a process of interaction and international integration of products, ideas and other aspects of culture. Albrow (1990) defines globalization as all those processes by which the peoples of the world are incorporated into a single world society, global society. Globalization is

an inevitable process and is also a necessary evil. One cannot afford to avoid this process. The implications of globalization in the words of Daniel (2003) are

“Globalization unites the world, as its name implies, but it also divides the world. Those who disapprove of globalization stress the increasing disparities of wealth that it brings, both between countries and within countries. Even those who believe that globalization is a force for good, worry about some of the gaps that it is creating within humankind. Changing technology is the main force behind globalization and the gap we call the digital divide is of popular concern”.

These global transformations have a strong influence on the overall educational scenario. In this new high-tech global economy people need to develop new skills, new experiences and gain knowledge. Education is becoming a lifelong learning and training process providing easy access to knowledge that can be applied in competitive markets. The larger purpose for education in globalised world is to prepare the individual to work in a borderless economy and live in a global society (Tandon, 2005). Technology has made it possible to disseminate, share and exchange knowledge on a global scale thus transforming lives in a significant manner. The role of teachers is also changing in this new borderless knowledge society. The teachers need to adapt themselves to this new world order and gain new skills to cater to the changing learning needs of the society.

4.8 LET US SUM UP

“The process of convergence between distance education and conventional education is becoming faster and the convergence will continue to be necessarily fast in the future” (Panda *et al*, 2005).

We have agreed that open distance education is a paradigm shift when it is compared with face to face education. It is often difficult, for people who are out of ODL system to understand the role of a teacher in open and distance education. It is so because the culturally induced face-to-face teaching and learning bias is heavy in the mindset of people. For them teaching learning means the process that takes place is within the four walls of the classroom rather than through open learning. It take little gestation period to understand and accept the meaning of open and distance learning. Here in this context, teacher needs to be convinced that distance teaching learning is a method and open learning is a philosophy. Further, the teachers play a significant role in producing socially relevant, market wise feasible and techno-managerial learning products which are fittest to the purpose and relevance. Partly this mission has been achieved by the open and distance learning institutions in the country, still the teacher has to make uncompromising efforts to travel the long journey to achieve teaching learning excellence in open and distance education system. Hence, it is always believed that quality or excellence is always a journey but not a destination in the knowledge era and especially in today’s globalised knowledge era. U.K. Open University has built its image of excellence at par with Oxford University. In India we often witnessed that many people use open and distance educational resources, unfortunately very few acknowledge the source. These issues are mostly related to mindset of the educators and policy makers. However, ODL institutions and its teachers are knowledge workers of the knowledge institution for the knowledge society. In spite and despite these divergent views, teaching profession is a service profession. Let us all work for education as a service and pave a way for fulfilling the mission 2020 to realize India’s dreams through education.

“*Open learning is a state of mind rather than method with particular characteristics*” (Jack, 1988; Rowntree, 1992).

4.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- Face-to-face is a teacher-centred education
- Open and distance education is learner-centred education
- Open and Distance Education is paradigm shift in education.

Check Your Progress 2

- i) WAGE: is abbreviated trait of a distance teacher and counsellor.
- W - Warmth (a feeling/a sense of felling)
- A - Acceptance (without having higher expectation or receiving the learner's as they are)
- G – Genuine – be a natural (both for known and unknown things/issue)
- E – Empathy – It is contrary to sympathy – ability to understand and share the feelings of someone else.
- ii) Globalising is a trend or a process which reduces the gap between nation state in imparting education
- iii) Cultural teacher is traditional teacher who believes transmission of values from one generation to another generation.
- iv) corporate teacher who aims at education as means of productive course besides cultural requirement of the society
- v) Silicon teacher is one who is equipped with skills to handle education technology for teacher learning process.

Check Your Progress 3

- 1) Active is designing process
- 2) Pro-active is translating design into development process
- 3) Process –active is evolving an appropriate delivery/transactional Strategies
- 4) Post-active is assessment (for course, programme or system) and evaluation Process forwarding degree to learners)

Check Your Progress 4

- 1) To assess teachers in open and distance education
- 2) To create working norms at par with UGC face-to-face teachers in terms of work load.
- 3) To evolve monitoring system of work
- 4) They are merely guideline not mandatory in status.

4.10 REFERENCES

- Albrow, M. (1990). Introduction. In (eds) Albrow M. and King E. *Globalization, Knowledge and Society*. London: Sage.
- Changing Role of Distance Teacher: March towards Multi-Skilling in Four Decades of Distance Education in India, Viva Books Private Limited New Delhi edited by Suresh Garg & et. al.
- DEC (2000). “*Work norms for the teachers of open Universities*”, IGNOU-DEC, New Delhi.
- Goutham, H. (2000) in *Distance education for 21st century* by Arun Goel & Goel. New Delhi: Deep & Deep Publication.
- Jack, M. (1988). “The Strathclyde open learning experiment”, *The Journal of Open and Distance Learning*, Vol. 3 No. 1, p. 52
- Kanwar, A.S. and Pillai. C.R. (2001). *India in Open and Distance Education in the Asia Pacific Region*. In (eds.) O. Jegede and Glenn Shive. Hong kong: Open University Hong kong press.
- Narayana, G. (2001). *Noble Leader; A Journey Through Dhammapada*. Ahmedabad Management Association.
- O’Neil, T. D. (2006). *How Distance Education Has Changed Teaching and the Role of the Instructor*. E-leader, Slovakia. Retrieved from: http://www.g-casa.com/download/ONeil_Distance_Education.pdf
- Prasad, V.S. (1996). *Developing Improved Strategies: Towards Better Student Support Services*. *Kakatiya Journal of Open Learning*, 2(2), 1-10
- Ravi Ayyagari and Rampelli Satyanarayana (2014). Effectiveness of video teleconferencing in teaching learning in open distance learning institution in India, *IUJ Journal of Management* of Vol. 2, No.1, May 2014, ICFAI University of Jharkhand.
- Ross, H.Paul (2005) *Institutional leadership and management of change in Planning & Management in Distance Education*, edited by Santosh Panda. Kogan page.
- Rowntree, D (1992). *Exploring Open and Distance Learning*. London: Kogan Page.
- Satyanarayana, R. (2000). *Can teachers remain immune to change?* *EDUTrack*, Vol. 2(1)
- Schulte, M. (2010). *Faculty Perceptions of Technology Distance Education Transactions: Qualitative Outcomes to Inform Teaching Practices*. *The Journal of Educators Online*, 7(2). Retrieved from: <http://www.thejeo.com/Archives/Volume7Number2/Schultepaper.pdf>
- STRIDE, IGNOU-(2006) *Manual for Programme and Course Coordinators*.
- Suresh Garg and J.M Prasad .V.S.(2003) *Best Practices in Open and Distance Education*, GRADE, Dr. BRAOU, Hyderabad,
- Tandon, S. (2005). *Globalization: Impact on Education*. Retrieved from: <http://www.satishtandon.com/globaledu.html>

4.11 GLOSSARY

Multiple media : Various Media such as Audio, Video, Radio, CD, internet and ICT uses

Gamut : The complete range or scope of something

Active : Engaged in action

Cultural : The behaviours and beliefs characteristic of a particular social, ethnic

Corporate : Aiming at skill for productions process

Silicon : Techno-managerial

