M.A. EDUCATION

SEMESTER - III (CBCS)

ELECTIVE COURSE- EC-VI

OPEN AND DISTANCE LEARNING

SUBJECT CODE - EC6

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MA Education

SEMESTER III
ELECTIVE COURSE (EC- 6)
OPEN AND DIATANCE LEARNING

Theory: 60 Internals: 40 **Total Marks 100**

Total Credits= 6

Course Objectives

- To develop an understanding of Open and Distance Learning (ODL)
- To develop an understanding of Curricular issues and trends of open and distance learning (ODL)
- To develop an understanding of Curriculum planning and transaction in open and distance learning (ODL)
- To develop an understanding of **Instructional Techniques & Materials and Learner Support Systems** in ODL
- To develop an understanding of Planning and management of open and distance learning (ODL**)**
- To develop an understanding ofProcess and Types of Evaluation in ODL

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c) Non Academic Staff : a) Planners & Decision Making Officers : Planning, Publishing, Printing Material, Distribution, Students Admission, Evaluation, Computer & Communications. b) Support Staff Technical Assistant. Computer Operators, Typists others.

Unit 6: Process and Types of Evaluation in ODL

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2.	Case study/Projects/Posters and exhibits /Seminar/ Workshop/ Cooperative Learning /Blended Learning/Construction/NaiTalim- Experiential Learning /Open Book Assignment/ Class test	10

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OVERVIEW OF OPEN AND DISTANCE LEARNING

Unit structure:

1.0 OBJECTIVES

In this unit, we intend to give you an overview of what we mean by 'distance education'. however, it should be clear that we can not capture the term in a conclusive and straitjacketed definition. The attempt is essentially, therefore, to put together the views of various thinkers in order to arrive at satisfactory working definition of the term 'distance education'. In this context, we have also touched upon formal education, non-formal education, correspondence education, etc., because this will help us distinguish distance education from other learning systems.

By the end of this unit, you should be able to

- argue that distance education is a learning activity;
- distinguish distance education from other learning/teaching processes/ activities; and
- explain how distance education becomes a structured system of learning.

1.1 INTRODUCTION

Distance education is characterised by a non-conformist and non-traditional approach which, in effect, questions existing norms of traditional education and seeks to provide a new orientation to educational processes. It assumes premises about the nature of learning that are vastly different from those governing the traditional system of education. Moreover, it has its own dialectic register which arises out of its endeavour to overcome the problems that are implicit in imparting instruction to students who are at a distance from the teacher and/or the institution.

This clearly shows that distance education does not exist in a vacuum. It is in fact, an outcome of certain socio-historical compulsions and technological growth: it is a system which is firmly related to social and cultural environments. The most important development in this regard is the advancements made in the field of electronic mass media. For instance, technological growth opens up new channels of communication which, when put to use, can replace the usual channel, i.e. oral communication.

1.2 DISTANCE EDUCATION VIS-A VIS TRADITIONAL EDUCATION

Distance education, in comparison with the conventional educational system, is a wider system in terms of both connotation and denotation. Its connotation is wider because it works in a much larger learning situation: a situation in which many factors remain indeterminate and inchoate. It has a wider denotation in that it covers a considerable distance in order to effect academic communication.

However, this does not mean that open/distance learning can be defined in any precise manner. It has as many critics as it has enthusiasts. It remains imprecise and that perhaps enables it to accommodate many different ideas and aims. Perhaps as Keegan (1986) suggests, it con not be used in an administrative context. It can be carried out both in face-to-face encounters and at a distance. Many distance teaching university have closed, rigid

structures and are slow to respond to the community's educational needs. And yet what makes distance teaching distinct is perhaps the fact that educational technology plays a major role in distance education.

Education technology itself is a developing field which today includes audio-visual, aids, the computer, the mass media, etc. It is this fact (i.e. educational technology is a developing field) that helps make distance education dynamic and exciting. Along with distance education, one can also list various other non- traditional forms of education. These are extension programmes which make available the expertise of a university or of a college to new populations; adult education programmes which provide non- traditional learning to adults in selected areas, and extended campuses that provide lectures at various locations which are far removed from the official campus.

Nevertheless, following Keegan, one can use 'distance education' as a generic term. It would then include a range of teaching/learning strategies referred to as correspondence education, home study, independent study, external studies or teaching at a distance. Before we proceed any further, let us work out the following exercise.

Check your progress 1

1. Define the term 'conventional education'.

The concepts on the basis of which distance education operates distinctly distinguish it from the traditional educational system.

It operates mainly on the following concepts:

i) Learner – centredness/learner autonomy ii) Indirect education

iii) Education in real-life setting

We have given below a brief account of each of these concepts.

1.2.1 Learner –centredness/learner-autonomy

Unlike formal education, distance education puts the client, i.e. the student, first and then the institution. Distance education, in

fact, lays emphasis on the needs and covenience of the learners while taking into account the individual diversity among them and indeed makes this an operative condition. It works on a concept of time which is not arbitrary in the sense that it permits individual variation in the time span required for purposes of study. Further, it does not advocate a definite time frame for any course of study. In that sense, it is a flexible kind of system which adapts itself to the needs of the learners as they actually exist and arise from time to time and place to place. It does not distinguish between the young learner and the old learner, but provides them with a possibility that permits individuals to programme their specific cource of study.

These principles, however, should be understood not in the absolute sense but in the relative sense. For example, an on- campus educational programme of three years duration meant for young students of a particular age with prescribed previous education and economic

and social status is restrictive. If the same programme is made a little flexible by relaxing the age limit, formal qualifications, the choice of place to study, and the duration within which the programme could be completed, then, the degree of learner centredness will increase. In relative terms, a three year programme becomes learner centred, if it can be completed in six to eight years. Similarly, in all other aspects too, if the programme is made suitable to the needs of the learners, it becomes learner centred.

1.2.2 Indirect education

Indirect education suggests the existence of a form of education that is direct. Direct education may be understood as one which assumes the presence of face-to-face communication. In this context, distance education can be called 'indirect' education because the provision for face-to-face interaction here is minimal. It is indirect also in the sense that it provides for as many inputs to learning as can be maintained and preserved. These inputs to learning are placed at the disposal of the learner, within whom lies the crucial ability to learn and to make use of these inputs. Of course, the learners must have the minimum preparedness and the abilities to learn and complete the course.

1.2.3 Education in real-life setting

One feels that distance education does not have the kind of recognisable and apparent structure that formal education possesses. It seems to be amorphous, supine and bloodless, lacking the obvious dynamism that an oral communicator necessarily imparts. While it is true that it suffers from an absence of a certain kind of vitality which only the presence of a teacher can generate, it nevertheless compensates for this by making use of as

many inputs to learning as are possible and by structuring itself around the actual learning experience of the students. The recent development in the telecommunication and computer technologies, have increased the possibilities of teacher-student dialogue and peer group interaction. Through e-mail and internet facilities, collaborative learning has become a reality. Given the access to these facilities, distance learners would feel less lonely and alienated. If some sort of face-to-face teaching-learning component in the form of summer schools and contact programmes can be arranged, the loneliness of distance learners can be reduced still further.

Having touched upon the concepts on which distance education operates, we shall now unravel the mystery around a few terms which are commonly used interchangeably with 'distance education'. The question is whether we are correct in doing so.

The confusion over the use of the terms stems from the fact the various expressions, such as non-formal education, distance education, non-traditional education and open education, which are currently used in the field of education are either not properly understood or not adequately

defined. The reason simply is that educational process underlying the expressions are similar in one or the other aspect, either in terms of their philosophy or in their procedures. In other words unless one is clear about the philosophy underlying these expressions and also the procedures which they imply, there is bound to be an element of confusion, which we should resolve, before we proceed any further.

1.3 WHAT IS DISTANCE EDUCATION

What, then, is distance education? There is no one meaning of the term distance education. it is known by a variety of names, viz. 'Correspondence Education', 'Home Study', Independent study', 'External study', 'Off-campus Study', 'Open Learning', 'Open education,' etc. In Australia, its official name is External system. "This description is not very much appreciated because it carries vibes of old London external system which usually provides examination but not teaching." This system is prevalent in India also. In some countries, the term 'Correspondence Education' is widely used. But it has increasingly been replaced by the term

'Independent study' in North America. 'Home study' is sometimes used to describe correspondence programmes of private schools both in North America and Europe. This is also disliked by many mainly because some of the correspondence institutions have only profit motive, particularly the private ones. No doubt, some of them enjoy very good reputation, but several of them are far from it. Further, several correspondence institutions depend only on one medium, viz. the print material. The distance education today lays emphasis not only on print medium but also on other media. In fact, multi-media approach is the corner-stone of distance education systems.

In France, it is known as 'tele-enseignement'. In Germany, it is described as 'Frenstudium' or 'Fernunterricht'. In Spanish speaking countries, it is described as 'education a distancia'. 'Off- campus' is a term which is popularly used for distance education in Australia. 'Extra-mural' refers to distance education in New Zealand. These terms have come into vogue because of the historical circumstance in various countries. They have peculiar characteristics of their own, most of which are similar to distance education. for instance, all of them emphasise separation of the student from the teacher.

In India, we have been using three terms: 'External Appearance' (private appearance), 'Correspondence Education', and 'Distance Education'. I would not regard the first as distance education, because, here a university permits a student to take the examination as a private candidate, and if he passes, he is given the degree. The university does not take any responsibility to impart education to the student. As a result, he is one his own and very often at the mercy of the mercenary tutorial institutions. Since university does not give any education, what is being done under external appearance can best be called 'private study' but not distance education. the second, correspondence education, has

been quite popular in this country. Lately some of them have designated themselves as Distance Education and Open University System.

In this connection, I would like to invite your attention to the two terms which are used inter-changeably and about which there has been some controversy. They are 'Open learning' and 'Distance Education'. 'Open Learning' covers "a wide range of innovations and reforms in the educational sector." Included are changes that aim to improve such things as the participation of learners, instructional design, methods of transmitting information and support of learners. A very comprehensive document entitled "Open Learning" by Mackenzie, Postgate and Scupham which was brought out by the UNESCO in 1975 describes open learning as follows: "Such systems are designed to offer opportunities for part- time study, for learning at a distance and for innovations in the curriculum. They are intended to allow access to wider section of adult population, to enable students to compensate for lost opportunities in the past or to acquire new skills and qualifications for the future. Open learning systems aim to redress social or educational inequality and to offer opportunities not provided by conventional colleges or universities." In this system, restrictions on learning are few than those in formal educational institutions. Educational opportunities are planned deliberately to that access to knowledge is available to individuals in spite of barriers such as geographical distance. It is argued by some that while distance education is accommodated by an open learning system, the opposite premise may not be true. As Ruggles and his associates argue: "Not all the distance education programmes have the characteristics of an open learning system. Some are very rigid and inflexible." In their view, this term may symbolise a new and emerging philosophy that will become more closely associated with learning at a distance.

"The term 'open' generally refers to four aspects: (i) People, where it would not debar applicants on account of their lack of educational qualifications; (ii) Place, in the sense that learning would be home-based and not restricted to class rooms or a campus: (iii) The use of new methods of teaching: and (iv) Ideas. However, writers on the subject find the term 'open learning' or 'distance education' unsatisfactory.

Doubtless, there are several similarities between 'open learning' and 'distance education'. However the term 'open learning' conveys certain amount of vagueness about it. Moreover, when we look at the open universities and open learning institutions, we find all that is conveyed by 'openness' is not to be found in quite a few of these institutions. Open learning, therefore, is always synonymous with Open University or distance education. Several open universities and open learning institutions prescribe certain entry qualifications and they debar those who do not fulfil the conditions laid down by them. Therefore, if the idea is to provide educational facilities to larger number of people scattered all over, i.e. providing greater access to education, the term 'distance education' would be more appropriate. This term

basically emphasises separation of the teacher and the learner, and planning of educational programmes and material by an educational organisation and use of technical media on a large scale.

Distance education has the following important characteristics:

- The quasi-permanent separation of teacher and learner throughout the length of the learning process; this distinguishes it from conventional face-to-face education.
- The influence of an educational organisation both in planning and preparation of learning materials and in the provision of student support services; this distinguishes it from private study and teach yourself programmes.
- The use of technical media; print, audio, video or computer, to unite teachers and learners and carry the content of the course.
- The provision of two-way communication so that the student may benefit from or even initiate a dialogue; this distinguishes it from other uses of technology in education.
- The quasi-permanent absence of a learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialisation purposes.

1.4 DISTANCE EDUCATION – HOW

Earlier we have explained the concept of distance education. In this country, broadly, we have two types of distance education institutions: correspondence courses and open universities. Let me first deal with the correspondence courses. Before I do that, a reference may briefly be made to 'private appearance' which is provided by a number of institutions.

With a view to overcoming the deficiencies of private appearance and also to improving the quality of education, correspondence courses have been introduced by a number of universities. It was in 1961 that the Central Advisory Board of Education decided to introduce the system of correspondence courses and a Committee was appointed under the chairmanship of Dr. D. S. Kothari who was the then Chairman of UGC which recommended in 1961 the starting of such courses. The first School of Correspondence Courses was started by the University of Delhi in 1962. The objective of the correspondence courses were clearly spelt out by Dr. K. L. Shrimali, the then Union Minister of Education while inaugurating the course. They were:

(i) "to provide an efficient and less expensive method of educational instruction at a higher level in the context of national development of India.

(ii) to provide facilities to pursue higher education to all qualified and willing persons who had failed to join regular university courses due to personal and economic reasons or because of their inability to get admission to a regular college, and

(iii) to provide opportunities of academic pursuits to educated citizens through correspondence instruction without disturbing their present employment."

The University Grants Commission also encouraged the starting of correspondence courses and said that these courses are expected to cater to the following categories of students:

(1) Students who had to discontinue their formal education owing to pecuniary and other circumstances:

(2) Students in geographically remote areas:

(3) Students who has to discontinue their education because of lack of aptitude and motivation but who may later on become motivated:

(4) Students who con not find a seat or do not wish to join a regular college or university department although they have the necessary qualifications to pursue higher educations;

(5) Individuals who look upon education as a life-long activity and may either like to pursue their knowledge in an existing discipline or to acquire knowledge in new areas; and

(6) In-service persons.

Impressd by the potentialities of this form of distance education, i.e. correspondence courses, the Education Commission (1964-66) in India recommended strengthening of this system. It observed:

"The correspondence or home-study course is a well-tried and tested technique. Experience of correspondence courses in other countries of the world such as the USA, Sweden, USSR, Japan and Australia where they have been used extensively for a long time…… encourages us to recommend fuller exploitations of the method of a wide range of purposes. There is hardly any ground for apprehension that correspondence courses are an inferior form of education than what is given in regular school and colleges. Experience abroad and experiments in India have shown results which on balance tend to strengthen the case for correspondence education….. The opportunities for part-time education through programmes like evening colleges and part-time education through programmes like correspondence courses should be extended as widely as possible and should also include courses in science and technology (either at the degree of diploma level). They will reduce the capital cost to a substantial extent especially as enrolments grow. They are the only means to provide higher education to those who

desire to study further but are compelled on economic grounds to take up employment at the end of the school stage. We suggest that by 1986, at least one-third of the total enrolment in higher education could, with advantage, be provided through a system of correspondence courses and evening colleges."

In response to such encouragement, several institutions of higher learning have introduced correspondence courses. There are now 14 state open universities and more than 200 universities which offer correspondence courses. A Committee appointed by the UGC (Mrs. Muley Committee) has gone into the working of the correspondence institutions in the country and has highlighted their deficiencies. In some of the meeting of the Directors of Correspondence Courses also, such issues have been raised. Broadly speaking, they are:

(i) Correspondence education is looked down upon and is treated as a second class system of education.

(ii) Most correspondence institutes provide arts and not science courses.

(iii) Most of them offer the same courses which are offered in the formal system. As a result, they have the same rigidities with regard to admissions and examinations.

(iv) Most of them use only one Medium, i.e. print, and are not multi-media based.

(v) Very few educational institutions in this country make proper resource provided by the U.G.C. is very insignificant and insufficient.

(v) There is practically no co-ordination among correspondence courses within the country as well as within a State which has led to duplication of effort and wastage.

(vii) Organisationally, correspondence institutes, in the universities are very weak. They are not given the status they deserve. The heads of correspondence institutes in many universities are not pernanent. They do not have much voice in the decision making bodies of the university.

The second type of distance education institutions in India are very few and new, i.e. the open universities. Several countries of the world have started open universities to provided innovative education and to strengthen distance education. They are to be found in the UK, West Germany, Spain, China, Thailand, Sri Lanka, Pakistan, Canada and Japan.

The main features of open universities are:

- They are, like their conventional counterparts, autonomous bodies and are free to take their own decisions and formulate their courses.

- They use multi-media for instructional purposes-electronic media is an important component.
- There is a strong student support service.
- The material is prepared by teams of experts.
- Entry qualifications are flexible and relaxed.
- One can study according to his own pace of convenience.
- There is uniformity in the quality of education, i.e. the students have access to the same high quality education.

The people working in these institutions devote their entire time to distance education. To them it is a cult. What is more, the open university specialises in distance education and provides multi-media instruction to its students.

In India we have been very slow in establishing full-fledged open universities. The Government of India took the initiative in the early 70s when it appointed a Committee under the chairmanship of Shri G. parthasarathty, the then Vice-Chancellor of the JNU, to look into the feasibility of establishing a National Open University in the country. The Committee, after a good deal of deliberations, strongly favoured the establishment of a National Open University.

"In situation of this type where the expansion of enrolments in higher education has to continue at a terrific pace and where available resources in terms of men and money are limited, the obvious solution, if proper standards are to be maintained and the demand for higher education from different sections of the people is to be met, is to adopt the Open University system with its provision of higher education on part-time basis. The group, therefore, recommends that the Government of India should establish as early as possible, a national Open University by an Act of parliament."

The Committee further added that the benefits of this experiment direct and indirect are likely to be very substantial. It is interesting to note that the Parthasarathy Committee took note of the pressures on the education system and came to a firm view that it was necessary to start an Open University not only to meet the pressure, but also to give quality education. We understand that the report of the Committee was accepted by the Government and a draft bill was also prepared. It is not known why it was not pursued. Later, the Government of West Bengal also announced its intention to start an Open University in early 1982. However, it was the Government of Andhra Pradesh which initiated action earlier than other. 22 Since then it seems to have caught on and a few other State in the country are showing interest in it. The University Enquiry Commission appointed by the Government of Bihar has suggested that the State Government should start an

Open University to promote education in the non-formal sector. It argues that in the altered conditions of life and increasing rush for higher education, it is desirable to open a venues for non-formal education and encourage self-effort on the part of the candidates to study when they can spare time instead of forcing them to waste their money and time by joining sub-standard colleges. The purpose of Open University has been very aptly described by this Commission as follows:

"The object of this university should be to help those who wish to get higher education through self-effort and to provide a wider range of courses of studies suited to the needs, occupational or personal, and interests of the students. The university system need not force anyone whether employed in some occupation or not, to join a college for receiving education for studying for a university degree. It should be open to all to employ their spare hours to learn through self-effort for qualifying themselves for the university degrees. The Open University should provide high quality of courses especially suited to the needs of such students and organise such guidance and aids which would help self-learning by those who wish to do so."

More than in the advanced countries, there is a strong case of promoting open education systems in a vast country like India. The conditions prevailing in the country demand this approach to education. It is accepted by all that there is tremendous pressure for education and this pressure can not be met by starting formal institutions. The State have neither the resources nor the qualified personnel to expand formal education. Therefore, the present policy concerning education has to be re-examined critically. "The only hope lies in redical and innovative approach through the avenues of non-formal education and adoption of modern educational technology and encouraging self-learning."

Realising the utility and importance of distance education and with a view to strengthening it, the Government of India decided to set-up a National Open University. It was first announced by the prime Minister, Shri Rajiv Gandhi in his broadcast to the nation in January 1985. Immediately after that the Ministry of Education initiated action for setting up this university. A Committee of distinguished educationists was appointed. Within six months, not only the project Report was prepared, but also the Bill relating to its setting up was passed by the parliament and the University formally came into existence towards the end of September 1985.

The University has two important functions to perform: (a) to function as an Open University; and

(b) to maintain and co-ordinate distance education in the country. Its jurisdiction is the whole country.

The origin of distance education lies basically in the philosophy that the society has a responsibility to provide educational opportunities to those who for some reason or the other cannot go to the conventional

system. There is the case of Eklavya mythology who wanted to learn under the guru, Dronacharya, who as we all know, refused to take him as a student because he was neither a Brahmin nor a Kshatriya. However, Eklavya was determined to learn and what happened subsequently is known to all of us. (The legend goes that Eklavya built a figure in the image of Dronacharya and started practising archery under its feet. Subsequently, his skills in archery surprised those of the best pupil of Dronacharya. What happened subsequently is not relevant here. The point, however, that needs to be made is that today a motivated learner cannot be and must not be ignored for any reason whatsoever). In those days a Dronacharya could refuse to take and Eklavya as a student and the society would tolerate it. Today's democratic society cannot afford to overlook the interest of Eklavyas nor can Dronacharyas say 'no' to them. Distance education and the Open University facilitate this. Open Universities are universities for the modern Eklavyas. Availability of communication technologies make this possible today. It is said that there was a time when, if a student wanted to learn, he had to go to the Aristotle. Today we have the means to take the Aristotle to the student. Therefore, let us take full advantage of the technologies available for extending educational opportunities to all those who want to have access to it.

1.5 A CLARIFICATION OF TERMS

It is an improvement over the single 'correspondence' mode, since distance education uses all the available media for educational delivery. 'Open Education' refers to the approach or the philosophy behind it.

By formal education we mean the campus-based education at the school, college and the University levels where curricula and syllabi have certain established patterns. The age groups, training, methods of teaching, materials (textbooks) used, evaluation etc. are known to the teacher and the taught. By non-formal education we mean any other approach to take education to those who have not been able to get formal education. Distance education refers to the 'mode' which does not require the physical contiguity of the teacher and the learner at all times.

It is not unusual to confuse the terms 'Correspondence Education', 'Distance Education' and 'Open Education' with each other. It is true openness to methodology is a characteristic of distance education, but it should be noted that 'non-distance

education' or 'face-to-face education' may also use 'open' methodologies. Moreover, 'distance education' is possible without being 'open'. For example, it can be argued that distance education, as practised at the German Open University at Hagen, may not come under the category of 'open education', as this University is 'open' in limited sense only. It should be clear that there can be various degree of 'openness' of education. however, at the moment it is difficult to say as to which

level of 'openness' may legitimize the nomenclature 'open university ' for a university,

'Distance education' is an expression which officially replaced the earlier term 'correspondence education' in the Twelfth World Conference of the International Council of Correspondence Education, held in Canada in 1982. Since then the Council was renamed as the International Council for Distance Education. The debate on the search for an appropriate expression to encompass all the characteristics which had, of late, come to be associated with what was known as correspondence education till recently was accelerated by the emergence of the British Open University in 1969 and the consensus, as indicated above, was achieved in 1982. The expression marks a deviation from the earlier distribution-strategy-based nomenclature to the nomenclature representative of the spatial and temporal relationship between the sources and the receiver of education. Having said this, now let us touch upon 'correspondence education' and open education'.

Correspondence Education

The distinction between correspondence education and distance education lies in their aims, methods, and orientation. Whereas correspondence education becomes an extension of conventional education as far as its imparting of prescribed knowledge for issuing of certificates is concerned, distance education aims at more varied goals. These include personal growth, training for better job prospects and job enhancement, a change in attitude, etc., in addition to imparting of knowledge. Distance education also employs a multimedia approach including human contact. Correspondence education, on the other hand, depends mostly on printed materials distributed by post. The procedure adopted mostly on printed materials distributed by post. The procedure adopted for admissions to the courses and examinations are more or less the same as have been in use over the centuries in the traditional college/ university education. Thus, correspondence education is essentially a system based on the mode of

i) distribution to teaching materials, and

ii) of effecting interaction, if needed, between the teacher and the taught.

Distance education contrastingly is oriented towards pedagogy: it tries to build the teacher in the materials. Now we may turn to the concept of 'openness'.

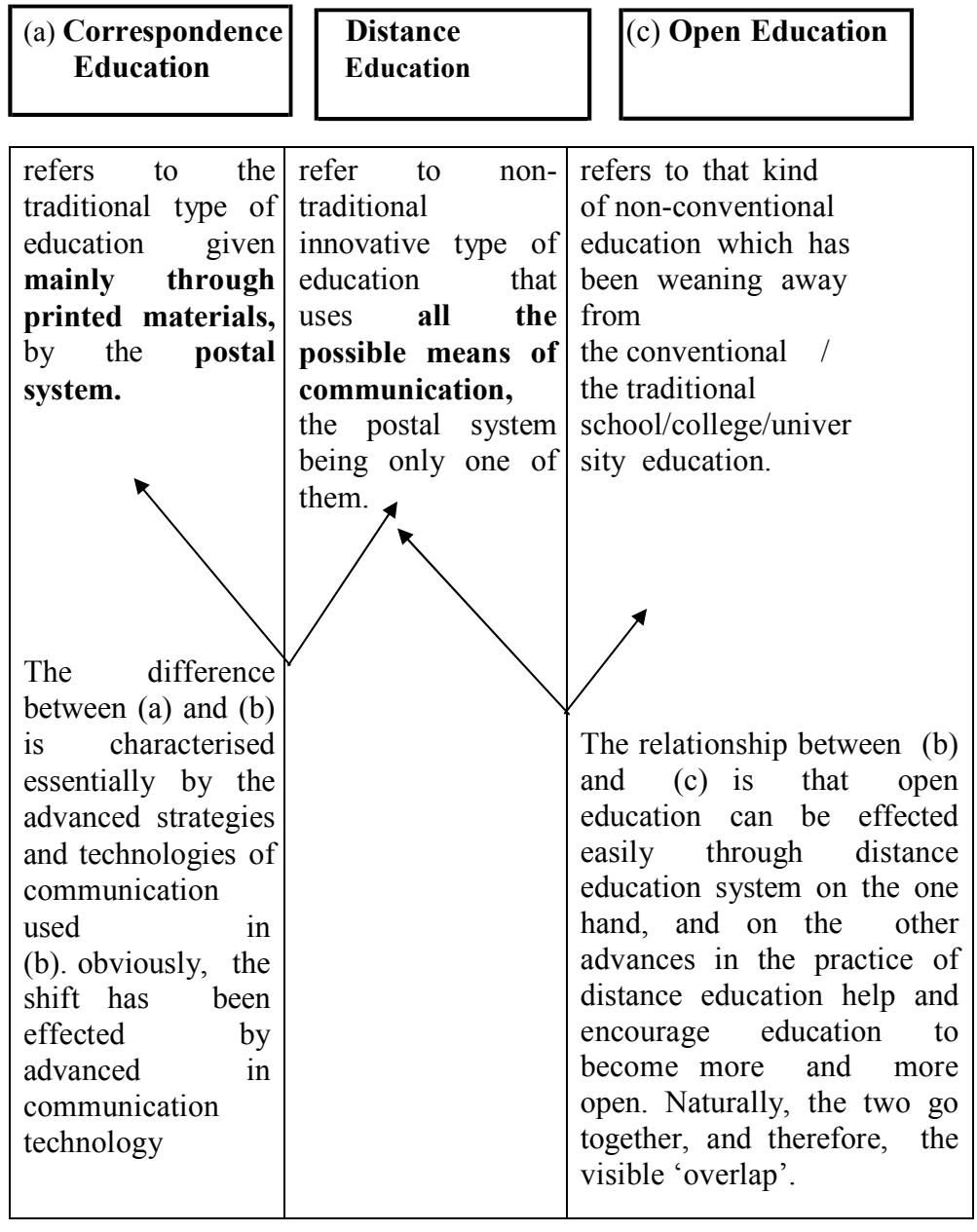
Open Education

We may define 'open education' as a system of education that does not operate through traditional conventions which are essentially restrictive in nature – admission restrictions, attendance restrictions, restrictions on the candidature for examinations, restrictions on the period of time to be devoted to a course, restrictions on the number of examinations given and taken in a year, restrictions on subject

combinations for a particular degree, restrictions on the modes of didactic communication and the didactic tasks, etc. The larger the number of such restrictions left unobserved, the higher the degree of the 'openness' of the types of education under consideration. We should make clear our point that 'correspondence/distance education institutes' may or may not be 'open' in the sense we have referred to above, or may be open only to a limited degree. And in the same way, even a traditional college/university may become 'open' to a recognisable degree. Research programmes like M. Phil and D. may be put under this category.

What have we said above?

A diagrammatic representation of what we have discussed is given below:



Besides these three terms, there are a few more in use currently, but in the main their currency is localised. They are as follows:

i) **External system/studies:** This term is in use in Australia. It does confuse one, when one thinks of the 'external system' as it functioned in London years ago. The London model of 'external system' makes it possible for learners to sit for recognised examinations, but teaching is not necessarily associated with the system. It is obvious that the term does not connote all that is meant by the term 'distance education' today.

ii) **Extra-mural system:** This expression is used in New Zealand to convey what distance education means to most of us.

iii) **Independent study:** Wedemeyer's definition of distance education. in fact, it is through his writings that this term gained currency in North America.

iv) **Home Study:** This term is localised mainly in Europe, probably under the influence of Swedish schools of correspondence courses. However, it is also being used at a few places in Canada and the USA.

V) **Off-campus studies:** To denote a contrast with the on- campus traditional type of studies the expression 'off-campus studies' is widely used in the pacific region – Australia and South-East Asian Countries.

As indicated above, these terms do have local currency. But the term 'distance education' enjoys international currency. It may be that these localised terms are not replaced entirely and immediately by the more acceptable term 'distance education'. The fact, however, remains that most of the current literature and reports on all kinds of activity in the field are presented under the label 'distance education' and /or 'open learning'.

1.6 SIGNIFICANT ASPECTS OF DISTANCE EDUCATION

Obviously, the question of defining distance education is open, and it will remain so for quite some time to come. The purpose of the above details will have been served if they enable you to identify the various characteristics of distance education as it is understood today. This is exactly what Keegan has already done for us. He brings together various aspects of these definitions in order to clarify the nature of distance education. These aspects are

i) the separation of teacher and learner.

ii) the role of the educational organisation

iii) the people of the technical media

iv) two-way communication

v) the separation of the learner from his peer group

vi) industrialisation

Each of these may be considered briefly as follows:

i) The teacher and the learner are separated from each other and this is a central characteristic of this form of education.

ii) Distance education is an institutional kind of educational system. It is, therefore, distinct from private study which may result from private reading or watching TV or attending a talk, etc.

iii) Distance education makes use of the various technically advanced media such as printing, telephone, audio-video, broadcasting, computer, etc.

iv) It is two-way communication because the student is able therefore can receive through assignment-responses or other media and therefore can receive feedback. The student thus enters into a dialogue with the institution.

v) Each student is separated from his/her peer group in the sense that although the learners form a fairly sizable population they do not have face-to-face interaction among themselves. Thus distance education becomes a highly individualised learning system. In this sense, it remains one of the most individualised of all educational systems. Even though study groups may be formed under distance education learning programmes, these may not be compulsory and the student is free to work entirely on his/her own.

vi) Distance education is a specific answer to a specific need. It is the developed industrial society that has created a need for a more capsular kind of education. At the same time, it is the same society that has developed the necessary technology to be able to structure an educational system that will cater to such a specialised kind of need for education.

In the sense, one can say that distance education is an offshoot of industrial development. Thus, today one can define distance education as that field of educational endeavour in which

- the learner is quasi-permanently separated from the teacher throughout the duration of the learning process;
- the learner is quasi-permanently separated from the learning group throughout the duration of the learning process;
- a technological medium replaces the inter-personal communication of conventional, oral group-based education;
- the teaching/learning process is institutionalised (thus distinguishing it from Teach-yourself Programmes) and,
- two-way communication is possible between both the student and the teacher (thus distinguishing it from other forms of educational technology).

In essence, it represents individualisation of the educational processes. Finally, one must recognise that the concept of distance education is basically a democratic idea. This is, perhaps, what makes it most unique. What a lecture says as part of his/her oral and spontaneous communication within the classroom is in many ways private. At least, it is restricted to a definite and small number of persons and con not be captured in any medium for review or revision.

On the other hand, the information that is communicated in a distance education learning programme is something that is open to public inspection. Such learning resources, therefore, can be publicly criticised and can be reviewed and revised from time to time. Hence one might conclude by saying that the democratistation of the educational process is possibly achieved in some measure by the process of distance education. Currently there are 14 state open Universities and more than 200 Distance Education Institutes are engaged in imparting education through ODL catering to about 25 percent of enrolment in Higher education institutions.

1.7 LET US SUM UP

In this unit, we attempted to give you an overview of the term 'distance education' – with a word of caution that it is not easy to define the term comprehensively. The attempt was carried out by distinguishing the system of distance teaching and learning from the other systems of education. To ward off naïve criticisms against this mode of teaching, we have, towards the end of the unit, said a few words in justifying distance education as a learning activity, which is more effective than the traditional systems of education.

1.8 UNIT END EXERCISE

1. Describe the historical developments of ODL in India.
2. Discuss in detail how distance education is an improvement over correspondence education.
3. What are the characteristics of distance education?
4. What are the features of open university system.

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2

BASES OF CURRICULUM FOR ODL

Unit Structure :

2.0 OBJECTIVES

After reading this unit you will be able to:

- Understand the determinants of curriculum construction.
- State the philosophical determinant of curriculum construction.
- State the psychological determinant of curriculum construction
- State the sociological determinant of curriculum construction.

2.1 INTRODUCTION

Alas with a faith in deep-rooted fundamental unity we began the task of national reconstruction of curriculum for Indian education system. During the last few decades we have achieved a lot. But the path which the Indian Society had traversed and is traversing now has always been full of challenges. Education of a society which has such peculiar characteristic described above is really a very complex task. To form the educational policies and execute them is much more difficult. The education system framed was with much conscious efforts with uniting all the complexes.

- i.e. formal, informal and non-formal.

Non-formal education is an arrangement wherein flexibility is the key word. Such a system is an open one with regards to various aspect

of education i.e., admission, place of instruction, mode of instruction, duration and of course curriculum.

2.2 DETERMINANTS OF CURRICULUM:-

It is everywhere seen that the form of the curriculum undergoes a change whenever the aims of education are altered to suit changed conditions in society. For this reason, it is necessary to define the various bases of curriculum, of which the more important are sociological, philosophical and psychological.

1) **Sociological :** To promote social values of co-operation, team spirit & developing social skills.

2) **Philosophical :-** Based upon fundamental principles of Educational philosophy, National objectives and school of educational thought.

3) **Psychological:-** Learner abilities, capacities, interests, aspects of individual difference I.D. stages of physical & mental development is very important.

2.3 SOCIOLOGICAL BASES OF CURRICULUM

It is consider very much desirable that the curriculum is organized, so that it may help in the achievement of social aims. Upon curriculum depend the social progress. This is the reason why educational sociologist considers it essential to organize the curriculum properly. Accordingly the curriculum should be planned keeping in view two important things

1. The curriculum should be such that it helps in the achievement of the social aims of the education and

2. Curriculum is so organized and its relationships with instructional methods should be such that it becomes an effective medium to keep a control over society.

Let us try to understand the different social structure and its relation with curriculum.

Education socially speaking, is a process of transmission of culture. To the sociologist, culture has a much wider meaning than its popular reference. It refers to the total ways of life of a society. Its knowledge, belief, attitudes, values, skills and behavior patterns – and not just to what is best or most important in that way of life, or to art, music or literature. Culture, to the sociologist, is a natural term that includes everything that is learned and manmade. Schools are formal institution specially set up for the preservation and transmission of culture by the society. Institutions seek to discharge this function through the curriculum, which is nothing but the sum total of learning experiences provided under its auspices.

SOCIAL CLASS AND CURRICULUM

The curriculum should represent class-free, non- controversial fund of knowledge that was good for all children that came under the fold of the school had till recently been taken for granted. Early sociological research on educational opportunity certainly treated as unproblematic the concept of "what it is to be educated" or the nature of the education pupil failed at. Of late however school-curriculum has become target of severe criticism in the context of the ideals of social justice and equalization of opportunity, the charge against it being that it is invariably conceived in narrow middle class terms and therefore acts against the interest of the children coming from improvised lower socio-economic classes. Why school-success should be judged in terms of high score in languages or mathematics rather than in work or social service?

EQUALITY OF CURRICULUM

A different kind of curriculum may be common curriculum that takes the form that one subculture or culture is as good as any other. It is also accepted that those who found it difficult to respond to such curricular treatment, either because of poor home- background or the other socio-economic reasons should be given compensatory education to make up for their cultural disadvantages and deprivations. Thus the curriculum should be culture free, transmit knowledge, languages, science, mathematics, arts and crafts and so on which is believed to be needed by one and all for the all round development of one's personality

SOCIAL LEARNING AND CURRICULUM

How the social class factors affect the school achievement unfavorably of learner, especially of the unskilled working class- has been brought out by many studies. The most well known of these is Basil Bernstein's work in social learning. His findings were that since child learns his social structure through its language, spoken language powerfully conditions what is learned and how it is learned and so influences his future learning. The school by simply substituting a formal language, which is not necessarily a logical, impersonal, emotionally eviscerated language cut off the individual from his traditional relationships and perhaps alienate him from them. So the schools should maintain the choice of language.

Thus for non-formal system of education curriculum should be framed keeping in mind the individualistic need and of the dynamic society. They are:

- The curriculum should be flexible and changeable according to the needs of an individual and society.
- It should be confirmed to the level of individual development.

- It should inspire an individual to become responsible citizen.
- It should include variety of assignment.
- It should emphasize more and practical work rather than theoretical.
- It should make individual capable for their livelihood.
- Through curriculum the cultural values should be brought to light and through it the high ideas of the society should be transmitted to the generation.
- The method of teaching should promote democratic feeling, ideals and value.

Check Your Progress

1. Explain the sociological bases of curriculum construction. Illustrate its application in curriculum construction.

2.4 PHILOSOPHICAL BASES OF CURRICULUM

The kind of educational objectives which the learners are to achieve may depend much upon the philosophy of education adhered to by the teachers. The involved learner's philosophy adds input into the curriculum. Pressures from the community at large also modify philosophical thinking pertaining to teaching-learning situations. Each philosophical school of thought has unique objectives for learner to acquire. Let us try to understand different schools of philosophy in relation to curriculum.

IDEALISM AND THE CURRICULUM

Idealists believe that one cannot know the real world as it is and as it exists. One can however seek and obtain ideas pertaining to reality. The perceiver of the use of the sense obtains ideas only about their phenomena.

To an idealist, ideas are moiré important than materialistic things. A good teacher can communicate ideas effectively to pupils. Mental and intellectual development of pupil is of utmost importance. Thus knowledge of worthwhile subject matter needs to be acquired by pupils. Each pupil should have access to good education in liberal arts and should acquire vital skills like reading, writing, listening and speaking. A comprehensive study of history, geography, science, art, music, literature and mathematics must be suitably emphasized in the curriculum.

Pupil may achieve universal idea from a quality liberal art curriculum, ideas which are enduring and have stood the test time. Immanuel Kant (1724-1804), emphasized the importance of each human being treating others as ends and not as means to an end. The golden rule is stable and

not subject to continuous modification and change. It can apply to all persons regardless of creed, origin or religion.

Universal ideas in depth must be sought continuously by the learner. The mind must be creative and flexible to seek universal truths. That which exists in the natural or physical environment does not represents the ultimate reality.

Now the question arise that what objectives then might an idealistic teacher emphasize?

- Which assist pupil to think critically and creatively i.e. mental development.
- Which reflect vital subject-matter that has endured in space and time.
- Which emphasize learning acquired in liberal arts
- Which reflect universal content in relating one human being to another involving ethics.
- That emphasizes individual pupils moving away from being finite to increasingly becoming infinite human being.

REALISM AND THE CURRICULUM

Realist believes that an individual may know reality as it truly is. One does not merely obtain ideas pertaining to the natural or social environment, but each person may actually see, feel, taste, touch and smell that which is real. An objective reality then exists for each person. The natural or social environment, as it exists, imprints itself upon the mind of the observer. Science and mathematics are two vital curriculum areas for a curriculum adhering to realism as a philosophy of education. Accuracy and precision are vital in the arena of science and mathematics can provide numerical description of reality. Other curriculum areas which objectified content may well include subjects where values which have stood the test of time. A realistic curriculum does not emphasize change in society as experimentalists do.

Realistic teacher may then emphasize the following objectives:

- Pupil should experience in particular a quality curriculum. Precise measurably stated objectives can be emphasized in teaching learning situations. The content should be accurate and verifiable.
- Other curriculum areas also need to receive adequate emphasis the class setting. Accurate facts, concept and generalization need to be emphasized which adhere to scientific methods in acquiring content. Options might receive relatively little emphasis in teaching and learning. More of action oriented projects are suggested.

- Pupil should be guided to receive exact content as it truly is in the environment. i.e. more of practical experiences.

- Learner need to realize that direct experiences makes leaning more effective an everlasting

EXPERIMENTALISM AND THE CURRICULUM

Experimentalists believe in experience representing ultimate reality. One can know that which is experienced in here and now. What is true today may not be true tomorrow is a key generalization emphasized by experimentalists. Since changes exist in society, new problems arise. These problems need to be identified and solved. The solutions are tentative and subjected to testing in actual life situations. What does not work in terms of solutions, needs modification?

Generally, groups of individuals select and attempt to solve identified problems in society. Thus, committee work needs to be amply emphasized in the class setting. Individual endeavors are needed to implement school curriculum and the curriculum of life. With groups or individuals identifying and attempting to solve problem, interest and purpose are involved in ongoing learning endeavors. Efforts put forth come from inherent interest of problem solvers. Interest and efforts are not separated from each other. They become integrated entities.

Experimentalist teacher might well emphasize objectives such as the following:

- Problem solving objectives being highly significant the curriculum should assign such methodologies

- Data gathering from a variety of resources to solve problems

- Developing hypotheses in answer to identified problems

- Testing and revising hypotheses, if evidence warrants

- Working effectively in committee settings

- Accepting the consequences of acts performed and lastly

- Change should be continuously in evidence in the curriculum of life.

EXISTENTIALISM AND THE CURRICULUM

Existentialism tends to emphasize rugged individualism in the curriculum. The involved person chooses and makes decision in free environment. Ideally, existentialists would say that complete freedom needs to exist for pupils in deciding *what to learn* (the objectives) and *how to learn* (activities and experience). Young learners in general, no doubt, need more assistance in learning as compared to older pupils. The existentialist teacher attempts to develop a learning environment where pupil increasingly makes decision to determine their destinies. Each pupil as a human beings needs to make choices. If other makes

decision for the individual learner, however, these characteristics of being human may be lacking.

If the learner chooses goals and learning activities in the class setting within a very flexible framework, the responsibility rests upon the involved pupil. It, truly, is difficult to make personal choices which are perceived as being worthwhile. The responsibility is great indeed. There certainly is a moral dimension involved in learning. Each decision made, in degrees, has moral components. To choose freely and also be moral, presents problems. To go along with the crowd or to do what is popular may not harmonize with that which is ethical and good. It can be appealing to realize one's freedom and within that framework be entirely responsible for choices he makes. Others, then, cannot be used as scapegoats for consequences of one's personal choices and decision. Each human being is born and lives his life. He/she did not choose to come into this world. It follows that human beings individually, now, need to determine their own goals. These goals are not given to any one person nor do they come from God. Rather the involved person by choosing and acting determines his/her destiny. The consequences involved in the making of decision can lead to perceived desirable results. The opposite may also occur – alienation, loneliness, and unhappiness. The natural, social environment does not present rational choices rather absurd, ridiculous situations may arise.

Which objectives then might an existentialist teacher emphasize

- Pupil need to be guided to choose what to learn as well as learning activities to achieve the desired ends. Learning centers may emphasize, in degrees, existentialist thinking. Individualized learning may also harmonize well with existentialists thinking.

- There needs to be much pupil/teacher planning in the class setting. True input, not manipulation of the learner, needs to be in evidence. The involved pupils must increasingly, be free to select their own destiny and value system. A teacher determined curriculum would definitely not harmonize with existentialist thinking.

- Learners need to study and analyze the human dilemma. Learner need to look at the outcomes of the solutions. Were the outcomes rational, irrational or in between.

- Pupil with teacher guidance needs to notice absurd, ridiculous situations in life. How can moral decisions be made within the framework of these irrational setting? A major objective of existentialist teacher is to have pupil accept the inconsistencies in society and still attempt to operate morally in the environment.

- The teacher needs to stress continuously the importance of making personal choices and commitments by each pupil. Committed individuals, who have personal conscience, reflect the thinking of existentialists.

In a nut shell, curriculum should be child centered. In non- formal more the following things should be kept in mind. Only those subjects should be included in the curriculum which are directly relevant to actual living because of its relevance the curriculum becomes life oriented. As the basic philosophy of education is perseverance of culture and civilization, the subjects which convey the knowledge and understanding of culture should be included. It should be create in learner/individual and a sense of dignity. Thus, a comprehensive and wholesome curriculum should have languages, social sciences, arithmetic, biology, science, literature and subject promoting vocational efficiency. Curriculum organized must be more functional and application oriented.

Check Your Progress

1. Explain the philosophical bases of curriculum construction. Illustrate its application in curriculum construction.

2.5 PSYCHOLOGICAL BASES OF CURRICULUM

Psychological basis of education emphasizes that the learner is center of educational process. Education is for the learner and learner is not for education. Psychology has established the fact that a learner develops through various stages, with respect to non-formal education system curriculum should be framed keeping the age level of the learner. The individual differences in the interest, impulse, urges, needs, capacities and abilities among the learner.

Let us see the various factors affecting the curriculum construction which are very essential for curriculum construction.

INDIVIDUAL DIFFERENCES IN THE LEARNER AND THE CURRICULUM

While the division of curriculum experiences by age and by broad periods is of substantial help in curriculum planning, it is inadequate from the point of view of the individual differences among individuals. In the development of children it is commonly found that sequences i.e. the order of events is fairly constant from child to child. Thus a child holds up his head before he walks he walks before he runs. But the rate at which each child learns is always different. Thus no two individuals can be same even the identical twins. The tempo and timings of age incidence of the events in a sequence varies greatly in children.Therefore the curriculum should be flexible to meet the individual differences effectively and allow each one to learn and develop along his/her natural path and progress at his/her own pace. For this the curriculum should contain various creative activities like seminar presentation, research, projects and useful developing experience.

INTELLIGENCE AND THE CURRICULUM

Intellectual or mental development is of critical concern to the school, as development of knowledge and understanding constitutes the most

important objectives of school-curriculum. The nature of intelligence and the factors influencing its development have been a favorite's area of research- interest among psychologist. Differences in intellectual capacity have been studied most in relationship to the ability of children to profit by experiences in school. The application is best seen in some of the modern- curriculum projects which have attempted to present the basic ideas of the different disciplines in the thought-forms of children and gradually deepen their understanding of them by enabling them to use then in progressively. As in every field of knowledge perspective has grown with time and research the results of the application of intelligence tests in the growing period are usually described in the terms of mental age. Thus a mental age of ten years means that the child performs like average ten years child with chronological age of ten. The intelligence quotient (I.Q.) is the ratio of mental age (M.A) and chronological age (C.A.). Thus the curriculum should be according to the normal average intelligence.

THE LEARNING PROCESS AND THE CURRICULUM

The problem of how human being learns has been a favorite problem of psychologists since the early days of psychology and has brought forth various kinds of answer. The first fifty century has been characterized by a rapid spread of experimental ideas. Such experiments have had a wholesome effect on unchecked speculation. Often the effect has been demonstrate that what some people knew for certainty was really in the area of chance and that they had been misled by some uncontrolled factor in the situation such as an representative sample of the population. In many ways research connected with the curriculum has done more to clear away the brush of misconceptions than it has contributed to new or starting discoveries. Such clarification, however, has often given a surer and more precise knowledge on which to build. The detailed experiments often have a limited range of applicability.

The different theories of learning result in different curricular implications. The curriculum emanating from the *mental discipline-theory* tends to be narrow in objectives and unitary in scope, and the aspects of sequence of content and continuity of learning experiences are likely to be ignored. The *behaviorist theory* with its emphasis on repetition, reinforcement and conditioning is likely to result in curriculum, built on learning material arranged in the form of programmes and taught through teaching machines. The field theory, on the other hand leads to an organization of curriculum- content, that stresses context, relationships and organized understanding and to a curriculum designed to serve multiple objectives representing a wider range of learnings. The influence of this theory cab be seen in modern curriculum-projects in the different subjects where stress is on intuitive perception of relationships.

School curriculum should, thus provide for varieties of learning and curriculum context should be selected with this end view.

Check Your Progress

1. Explain the psychological bases of curriculum construction. Illustrate its application in curriculum construction.

2. Explain the three bases of curriculum construction. Discuss its application in curriculum construction.

2.6 LET US SUM UP

In free India numbers of attempts were made to renovate and revamp the curriculum to make it suitable to the growing need, aspirations and demand of a modernizing egalitarian society. In the nutshell the curriculum should be constructed in accordance with the needs, requirement, condition and aspirations of society so that the qualities of sociability and citizenship is inculcated. The curriculum should contain various activities like survey, visits to places, discussion where the social contact can be improved upon.

2.7 UNIT END EXERCISE

Q.1 What are the bases of curriculum construction? Explain the Philosophical bases of curriculum construction.

Q.2 Write short notes on :

a) Realism & curriculum

b) Individual difference & curriculum c) Determinants of curriculum

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3

CURRICULAR ISSUES RELATED TO ODL

Unit Structure

3.0 OBJECTIVES :

After reading this unit you would be able to :

- Explain different curricular issues with specific reference to ODL
- Describe ideological undercurrents that shape curricular pattern.
- Outline relationship of curriculum, ideology and andragogy.
- Identify curricular challenges for global environment.

3.1 INTRODUCTION :

We now understand that the basis of curriculum and the foundations that shapes the learning processes in ODL from unit-3. We must remember that these processes have socio-political and cultural contexts having

Philosophical and Pedagogic basis with ideological implications. In spite of the fact that curriculum for ODL face new challenges from time to time, there are fundamental issues that are common to any ODL programme.

In this unit we would explore instructional, discipline-based, individual-based curriculum and relevance-based issues.

3.2 INSTRUCTIONAL ISSUES :

Instruction is the means by which learning is achieved and curriculum essentially defines the design for learning. You know that learning in any educational process focus on knowledge and/or skills that are judged to be important while defining curriculum. In ODL instructional issues related to curriculum can be viewed at various levels, broadly categorised as Philosophical and Pragmatic levels. At the Philosophical level, various principles behind theories of learning and concept of curriculum itself influence curriculum planners. Whereas at pragmatic or practical level there are host of instructional issues at various stages of educational process. We need to address course planning, course production, media choice, student support services, evaluation, feedback system and so on.

We would be discussing theories of learning in the next unit. Here, lts look at Philosophical issues related to ODL.

3.2.1 Philosophical level :

We need to understand that each theory of learning defines the worldview about teacher as well as learner besides the entire process of teaching-learner besides the entire process of teaching-learning. The nature of understanding of curriculum planner would influence all curricular decisions in the process.

We have discussed theories of learning at length in unit-5.1. Here, let us briefly understand how instructional issues related to curriculum are impacted by Philosophy of curricular planner.

Behaviorism:- Based on the experiments conducted on animals, birds and children, this theory focuses on 'stimulus-response'. Curricular planner, who ignores power of human mind, believes that teacher has absolute control over learner, and assumes learners as passive beings, designs instructions within behaviorist theory. Also this theory basis instructions on the assumption that biological behavior of learners can be conductional or manipulated by the instructor or the teacher.

Cognitive Psychology:- Unlike behaviorism, Cognitive Psychology places human mind at the centre of the learning process. Instructions under this theory based on German Gestalt Psychologists, emphasises primacy of mind. Unlike behaviorists which view learning as relationship between stimulus and response, cognitivists uses previous knowledge of learners as base and considers learning as insight. This theory contributes in terms of unlinking new learning to cognitive structure and aids in comprehension and problem solving.

Eclecticism:- As a synthesis of behavior and cognitivists worldviews, Robert M. Gagrie an educational psychologist, described learning as a process that takes place inside an individual's brain depending upon both; internal and external environments. He identified nine stages of cognitive processing which has been discussed at length in unit – 5, 5.1.

In brief, lets understand how theories of learning has implications for curriculum development in ODL.

a) Curricular planner inclined towards behaviorism tend to ignore role of learner and may devise structured, controlled bureaucratic curriculum.

b) Curricular planners choosing eclectic or to an extent cognitive approach would focus on degree of freedom for learners and give them choices to decide what and how they want to learn.

3.2.2 Pragmatic level :

At operational, practical or pragmatic level we make decisions about strategies of teaching and support services for learners within ODL framework. Those decisions are made in such a way that learners can learn without much difficulties.

The decisions about strategies of teaching will focus around course structure, text design, choices of media. The content load, mode of presentation, format of text, audio-visual material and so on would influence teaching strategies. The decisions about media choices has to consider weather course would be offered through one medium or would have multi-media approach and it so what would be the availability of financial, technological and human resources. Validity and educational effectiveness of media has to be considered while making media choices.

Some questions that we can ask before developing and launching a new course through ODL are :

a) What is the proportions across media, if we are choosing multi media?

b) What would be the type of assignments-tutor marked or computer marked or both and if both what proportions?

c) What would be the assessment weightage for assignments in an overall assessment and evaluation procedure?

d) What would be the tune-frames and turn-around tune in assignments-response, assessing and returning them to the students ?

e) What kind of help the tutor would offer to the students ?

f) What are the feedback mechanisms for the course, student response, effectiveness of feedback ?

g) What would be the frequency of face-to-face of tutor-student meetings ?

h) Are the facilities provided by the study centers accessible to the students ?

Undoubtedly we can further analyse each of the above questions but we would stop here. Having looked at philosophical and pragmatic issues lets revise before we go further.

Check your progress -1

1. Compare behaviorist and cognitivist approaches to learning. Give five lines to state the difference.

3.3 DISCIPLINE-BASED ISSUES :

Respective disciplines make curricular issues more specific. Depending upon the disciplines philosophical and pragmatic issues would vary. For example, if you are developing curricula for chemistry, the principles and applications of those principles would be vary different from that for the course let us say in history. Let us take few examples from different disciplines.

3.3.1 Science :

The philosophical and practical considerations for science courses in ODL would make certain demands on the institutions designing as well as offering those courses. The basic infrastructural facilities necessary for the practice and success of science related programmes. Importance given to theoretical as well as practical components in science subjects has to consider availability of laboratory facilities, scientific equipment, nature of assignments, frequency of face-to-face contact and so on. Even from the student perspective possibility of engaging in practicals and accessing the availability of infrastructural facilities have to be considered at the curricular stage. Tutor support and its administrator implications for ODL in science-related subjects demands pre-planning and logistic execution. The students may also find it difficult to collaborate and conduct experiments needed to develop body of knowledge. In brief, the set of behaviorist principles that operate for curriculum in science differs from that in social science or humanities.

3.3.2 Social Science & Humanities :

The curricular decisions in social science and humanities demand understanding of pedagogical/andragogical and ideological issues. There may or may not be practicals but issues related to teaching strategies and learning support have to be decided within ODL framework. For examples the issues related to literature, economics, political science, mass communication though require flexibility and ideological tolerance, reasonable degree of objectivity has to be maintained. We can at least attempt to represent diverse worldviews related to the subject. An open, free play of ideas and interpretations can help the student to make informed choices with reference to approaches, ideologies, interpretations and so on. If we are aware about the differences, it can make the curriculum accomodative of those differences.

Anticipation of issues pertaining to each discipline, thus, can provide for effective implementation at least from the design perspective. If we have not paid attention to discipline-based issues while devising curriculum in ODL most well intended curriculum can become narrow and ineffective.

Traditionally the focus of curricula had been on disciplines/ subjects. The shift today had been on learner and as essential in ODL individual-based curriculum issues have to be understood.

3.4 INDIVIDUAL-BASED ISSUES :

Educational thought process has given currency to learner autonomy. ODL has a foundation of individual choice and freedom. The ODL curriculum itself has to provide for flexibility, independent study and learner autonomy. The flexibility of curriculum in ODL needs to be interpreted in realistic terms. The time frame envisaged for the completion of a course should be reasonably flexible in such a way that student does not have to disrupt social, domestic, personal or professional commitments. But at the same time the flexibility can not be treated in absolute terms.

The curriculum for ODL has to take into account diverse individual needs, different learning styles and study habits of students. The curriculum should allow individualized learning in geographical, sociological and pedagogical/andragogical sense. The students dispersed in different geographical locations (rural, urban, remote) irrespective of their social status should be able to take courses they need.

Based on sample surveys or market needs, ODL courses for specific segments (subjects or student groups) can be devised. For example, a lecturer wants to do a course in research writing or medical practitioner wishes to learn new technology in medical field. Such individual needs can be addressed by offering ODL programme by isolating specific topics/areas of knowledge. Once the individual-based needs are identified and flexibility of curricula is defined, considerations have to be made about learner objectives, preference for learning methods, modes of evaluation, logistics, costs etc. Some individuals may just want information whereas others want certification, few may merely wish to give examination to qualify. All these factor would impact final outcome of individual-based curriculum. The next and last issue with reference to curriculum for ODL is relevance. Let us now talk about relevance-based issues.

3.5 RELEVANCE-BASED ISSUES :

Individual needs and society change with time. A curriculum that was very effective and useful may become irrelevant due to variety of factors. It may also happen that most updated and complete curriculum become irrelevant since it does not suit needs and interests of individuals.

In situations when schools/colleges teach subjects containing outdated information, curriculum becomes the bottleneck for knowledge

generation. At the same time, a new curriculum which yet to has gain social recognition and acceptability might produce students having no employment prospects. We need to review, revise or change curricula according to changing educational needs. In this context, can you visualise problems that ODL institute can face.

There are two problems that need to be addressed.

a) The curriculas designed for traditional institutions does not provide for flexibility in course combination. Most of the distance education institutes/ Directorates/departments attached to traditional universities still operate in the similar framework.

b) At times the courses designed to address needs of small group of people may not become administratively viable. ODL programme curriculas designed without having long term implications may fail. The life of the course factor needs to be decided while considering relevance of the course.

Check your progress – 2

1. Write note on issues that impact individual-based curriculum and how it is interlinked to relevance based issues.

3.6 CURRICULUM & IDEOLOGY AT ANDRAGOGIC LEVEL :

By now you would be feeling lost with discussions and debates on curriculum (concept, theory, content, etc.). As you are aware any educational activity comprises of two way process; teaching and learning. Curriculum is systematic organisation of requisite components of an educational programme. Having understood theories of learning that impact curricula at philosophical level, let us here discuss how ideology and curriculum need to be explored at andragogic level for ODL programme.

3.6.1 Curriculum & Ideology :

Curriculum as specification of any educational process represents worldview about who, what and why of educational activity. Early definitions of curriculum relate to course and content of teaching programme gradually it included activities involved in learning situation and whole range of learning experiences.

In developing countries the ideology of education is closer to liberal or individualist but the terminology used gives impression of being socialist. A UNESCO report on education around the world states, “Serious anomalies appear where educational system has been set up recently, and has been copied from foreign models. Curriculum in the context of ODL get influenced by ideological issues in at least four major aspects; theory, development, implementation and evaluation.

Following Table-1 shows how ideologically

Table – 1 Curricular models	
Classical	**Romantic**
• Subject centeredness	• Learner centeredness
• Focus on skill development	• Focus on creativity of the learner
• Stress on instruction rather than learning	• Provision for learning by discover
• Transmission of information	• Focus on awareness, originality and freedom
• Emphasise on discipline, obedience and conformity	• Aims at developing positive attitudes and values
• Aims at acquiring knowledge	• Emphasise on real life experience as content
• Application of method of competition & didactic instruction	• Application of method of learner involvement & co-operation
• Stress on evaluation	• Stress on self-assessment and self-improvement

classical and romantic models differ. In the next section we would discussing about andragogy. The elements in romantic curriculum coincide with the micro adult education theory of andragogy.

3.6.2 Andragogy :

Andragogy is a concept parallel to pedagogy, which is art and science of helping adults learn. Though the term was used much easier, knowless popularised it. The five assumptions of andragogy are :

i) Self-concept

ii) Experience

iii) Learning orientation

iv) Readiness to learn

v) Motivation

It suggests that adults are motivated and self-directed learners. They bring their experiences of learning which are more problem-centered and less subject-centered. It would be unwise to view andragogy as opposite to pedagogy because a child may also contain self motivated traits. The centric concept to andragogy is the individual ‘self’ that grows throughout the life, and self-directed learner needs independence to learn to help the ‘self’ to grow.

3.7 CURRICULA IN GLOBAL ENVIRONMENT :

Open universities Australia (OUA) is a consortium of seven Australian Universities. Deden (2006), Elaborates OUA case of building curriculum through collaboration. OUA has generated newer curricula in two ways; market-based request from OUA itself or by a university on its own initiative. Since global environment makes educational process also global ODL curriculum can reach out to student across cultures and societies. The institute can devise courses for universal audiences.

3.8 LET US SUM UP

In this unit we hve discussed the following curricular issues:

Instructional issues :Instructional issues are related to

i) Philosophical level &

ii) Pragmatic level.

Discipline based issues :This issues are related to :

Science

Social Science &

Humanities

Individual based issues :This is related to learner autonomy.

Referane based issues : This is related to the life of the course.

Curriculam issues are related to both the level -Pedagogy & Andragogy.

Adults are motivated & self derected learners.

3.9 UNIT END EXERCISE :

Q.1 What are the curricular issues related to ODL? Explain the relevance based issues in curriculum.

Q.2 Explain the curriculum models.

Q.3 What is andragogy? Explain the curricular ideology at andragogic level.

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4

CURRICULAR TRENDS IN ODL

Unit Structure

4.0 OBJECTIVES:

After reading this unit you would be able to:

- Describe the role of ODL in mass/community education and rural/national development.
- Outline important curricular trends in ODL in India and around the world.
- Understand how ODL is interconnected with rural and national development in India.
- Able to identify curricular trends in global environment.

4.1 INTRODUCTION:

We now understand the curriculum is impacted by diverse issues of design, discipline, relevance and ideology. We would now look at curricular trends in ODL in this unit.

Curriculum is suggestive of the course of (programme of studies or course content) as well as time (planned learning experiences, intended outcomes) having interplay of teaching and leanring. We should also understand that curricular trends can not be explored without understanding history of curriculum but is interlinked to the history of education. Also as we know, surriculum is not only defined by educational philosophers but also by societal needs.

Traditionally curriculum was confined to regligion-based orientation. Curriculum in the pre-World War era focused on subject-centredness emphasizing factual details. The social conditions following World War II made the world in three parts: the communist block, the Western non-communist block and the rest of the world. Mid-1960s witnessed humanistic goals, congnitive and asthetic and experimental learning activities. ODL began in seventies and gained ground in Western block taking a decade to reach India. Late twentieth century witnessed collapsing of communist block in most part of the world. Early twentieth centry also witnessed shift from sectarian education to liberal education. Curriculum shifted from knowing to understanding and application.

We in India inherited British educational system and curricular design in 1947. In January 1961 The Central Advisory Board of Education, the highest policy making body in India for education, established committee under the chairmanship of Prof D S Kothari to formulate proposals for establishment of correspondence education in india. The University of Delhi after necessary amendments to the University Act started first ever course in correspondence education in 1962. Sixties and seventies saw expansion of correspondence education in India. National Council of Educational Research and Training (NCERT) published curricular framework for school education in December 2005.

National policy of education in 1968 marked an important step in the history of education in post-independent India. It aimed towards national progress, a sense of common citizenship and culture, and promotion of national integration. The constitutional ammendement of 1976 which included education in concurrent list, was a far-reaching stand making education joint responsibility of the Union and the state. National policy of education in 1986 prepared the ground to take India into twentyfirst century. It emphasized the role of lifelong learning as a cherished goal of educational process.

After early twentieth century, in recent times curriculum has undergone dramatic changes. The direction it has taken has been:

- Increasing emphaise and shift to utilitatirian mode
- Unlike compartmentalized it is more inter-disciplinary
- Importance given to needs and demands of learners and students
- Not static but dynamic nature of curriculum as per societal needs
- Increasing importance on technology and instructional delivery than on content
- Not vocationalised but more driven to lifelong, continuing professional education for anyone and everyone

4.2 CURRICULAR TRENDS IN ODL

Curricula in ODL especially in the third world, now known as emerging economies, aimed mainly at national development. Diverse groups like women, tribals, youth or drop out children turned to ODL for variety of reasons. ODL to an extent could address needs of women who moved out of formal system of education for personal or social reasons, rural or tribal population whose needs were not satisfied by the mainstream educational processes, youth who wanted vocational education, people with disabilities who could not attend regular schools, all these people could turn to ODL for achieving their respective goals.

Adult education and worker education as well as courricula in unconventional courses, like for example, ideology of Paulo Freire in Latin America especially Columbia, Brazil and Chile and similar experiments by Deccan Development Society or Self- Employed women's Association in Ahmedabad at some stage integrated principles of ODL in face-t-face situations. Curricular trends in ODL can be classified into four broad categories:

1) Mass education: ODL curricula that address requirement of masses for attainment of their individual goals contribute to mass education. It can be the individual need to be called sheer 'graduate', urge to gain 'knowledge' or to even get 'degree for the job' or inability to take on 'regular' education that pushes masses towards ODL.

2) Community development: The educational curricula to address the community requirements for the betterment of their lives have been elaborated in community development curricular trends. Most ODL institutes in India today offer community development curricula through courses for diverse clientel.

3) Rural development: Curricula that has been evolved with the rural focus and needs and which can lead to betterment of lives in rural areas.

4) National development: The broad aim of all the educational processes is improvement of individual knowledge, abilities, skills, practices. ODL curricula in global south always targeted at national development by making educational opportunities available to the poorest of the poor and creating trained human resource through education. ODL curricula for diverse industries, depending upon the country-specific strengthes and global requirements can lead to national development.

4.3 MASS EDUCATION

In India over the years various State ODL institutions have created visibility for themselves by creating mass education opportunities for the masses. Post Dr. B R Ambedkar open University in Hyderabad in 1982 and national university in form of Indira Gandhi National Open

University in 1985, State open universities at Kota named Vardhman Mahaveer Open University in 1987, Nalanda Open University in 1987, MP Bhoj Univeristy in 1991, Dr. Babasaheb Ambedkar Open University in Gujarat in 1994, Karnataka Open University in Mysore in 1996, Netaji Subhash open university at Kolkata in 1997, UP Rajashri Tandon Open University at Allahabad in 1998 and Tamil Nadu Open University at Chennai in 2002 has created curriculas according to state languages and learners. Punjabi University at Patiyala introduced M.Phil course in English and Punjabi through distance mode in 1991.

For example, Yashwantrao Chavan Maharashtra Open Univeristy (YCMOU) which was established in July 1989 offers Degree (B.A., B.Com as well as Science and Technology, Applied electronics) and has 226 academic programmaes having average annual enrollment of 2,50,000 students and cumulative enrollment of 1,7,00,000 students (http://ycmou.digitaluniversity.ac). Indira Gandhi National Open University (IGNOU) has 175 programmes on offer through its 21 schools of study has enrollment crossing two million mark.

In a country of diverse linguistic, climatic, geographic, cultural climate, ODL can and has proved itself as viable solution to large majority of illiterates leading to mass education. Developments of Information and Communication Technologies (ICT) have made mass education through ODL feasible across time and space. Inability to reach out to large majority through formal as well as non-formal educational systems makes ODL all the more relevant and meaningful.

In the decade spanning 1992 to 2002, with the advancement in interactive communication technologies lead to many courses in computer education, management programmes with various specialisations, programmes in foreign trade, environmental management, human rights, pollution management, yoga and astrology. Technical and paramedical programmes gained importance through ODL in this decade. Distance Education Council in the year 2004 reports 429 academic programmes with 3483 courses across 11 ODL institutions across India.

Check your progress -1

1. List five changes that curricula has faced over the last two decade.

4.4 COMMUNITY DEVELOPMENT

For many communities like disabled, temporary physical disordered, geographically remote residents, ODL is not a choice but only option in those situations. At the same time lack of access to technology, absence of electric or digital connectivity, computer or particular language illiteracy etc. can impact acceptance of ODL in a specific context.

The United Nations Capital Development Fund (UNCDF) developed distance learning course in Micro Finance (MFDL) in September

2002. The course is designed for students, working professionals, practitioners, policy makers, donor staff, socially responsible investors and others working in development. The courseware is a pacage with two CD-ROMs and other selection of reading. Though designed as tutored course it also works as stad- alone basis available online free of charge at http://www.uncd.org/mfdl.

IGNOU has over 100 of community colleges across India are an alternative system of education which aims to empower individuals through appropriate skill development leading to gainful employment in collaboration with the local industry and community.They offer the advantage of tailoring programmes to local needs and state-based requirements by using approaches that will be most acceptable to workers in the given community. These colleges are a source of economic growth because they provide an educated and skilled workforce that improves the quality of life for individuals students, communities, and the nation (http://ieg.ignou.ac.in/wiki). IGNOU developed variety of community development programmes for non-literate and neo-literate rural disadvantaged section with emphasise on women and unemployed youth.

Table-4.1 Community development programmes of IGNOU

No	Programme	Features
1	Modular programme in science and technology for sustainable development	• Suitable for rural masses and focused at women and disadvantages sections in rural areas. • Provide training facilities and employment in rural areas. • Impart capacity building and skil training for non-literates, neo-literates and unemployed for gainful self-employment and income generation.
2	Certificate and Diploma programmes on Art, Craft and Design	
3	Certifcate programme for construction workers	• Particular industry specific • Impart training facilities and employment in selected centres • Provide opening for workers in the industry for their vertical mobility • Provide opportunities for self-employment.
4	Certifcate programme for leather processing workers	
5	Certifcate programme for leather industry workers	
6	Certifcate programme for motor cycle technicians	
7	Certifcate programme for machine operators	
8	Certifcate and Diploma programmes in renewable energy technologies	

Source: Kumar et.al, 2006: p-439

Rehabilitation Council of India (RCI) Act in 1992 became effective from June 1993. RCI was assigned task of recognition of institution offering training programmes for those engaged in rehabilitation. RCI signed MOU with Mdhya Pradesh Bhoj (Open) University (MPBOU) to develop Bachelors in Education (BEd) Diploma and career advancement programmes in special education through distance mode. The course was launched in 2001. MPBOU conducts three teacher education programmes through distance mode: Foundation course on education of children with disabilities, BEd special education and PG professional diploma in special education. RCI also developed Masters in Education (special education) based on credit system. Uttar Pradesh Rajashri Tandon

Open University Allahabad and Netaji Subhash Open University Kolkatta translated BEd (Special Education Distance Education) materials in Hindi and Bengali respectively.

Banglore University is offering a course in community based rehabilitation using distance mode. National institute of open schooling offers programmes in seven disability areas but the number of beneficiaries remains low. RCI has signed an MOU with Manipal Academy of Higher Education for launching a Postgraduate Diploma in Disability Management for medical doctors. The need emerged from the nationalwide traning short- term course for Primary Health Centre doctors focusing on prevention, early indentification and intervention for people with disabilities.

Check your progress -2

1. List three agencies in India that have used ODL for community development.

4.5 RURAL DEVELOPMENT

India has one of the most impressive systems of agriculture education at the tertiary level that was credited with green revolution. YCMOU launched certificate and diploma level agricultural programmes for five subjects- gardening, fruit products, vegetarian profducts, floriculture and landscape gardening. YCMOU adopted novel approach to identify target groups and courses appropriate to their levels. First group is functional literacy programme based on life work skills for illiterates, semi-literate and non-literates, Second group is less educated for whom vocational, technical and skill based programmes and third group of educated and higher educated programmes for doctoral, postgraduate and degree programmes for professional, vocational and general continuing education. Union Government prioritized rural development and food and nutrition to develop academic programmes for awareness and skill development.

Community development programmes of IGNOU have been conceived as empowerment and income generation programmes for the rural masses and unemployed youth. IGNOU has signed Memorandum of Understanding with various agencies like Kadi and Village Industries

Commission (KVIC), construction Industry Development Council (CIDC), Central Leather Research Institute,

Hero Honda Motors Limited and so on. Food and Agricutural Association (FAO) has prepared a framework to explore utilization of distance education and training startagies to address challenges of food security and rural development.

The ODL programmes on agriculture raises primary concern about farm experience and laboratory experimentations. Agricuture being applied science the need for development in aognitive, asychomotor and affective domains to achieve quality is essential. YCMOU experiences indicated that with appropriate pedagogy the ODL limitations can be overcome.

Dr. M.S. Swaminathan committee report on education for agriculture recommended establishment of State Agricultural Universities (SAU's) independent cell for distance education for rural youth to impart skills in agriculture and allied sciences. The committee also suggested for Agricutural Media Development Centres to development multimedia capsules for dissemination of knowledge and information empowerment to increase agricultural production through improved productivity.

The Consultative Group on International Agaricutlural Research (CGIAR) has established Global Open Food and Agricuture University (GO-FAU) for open distance leanring and capacity strengthening that serves traditional and open universities in developing and developed countries. The university would use traditional text, CD ROMs and other technologies in variety of languages so that participants can benefit.

4.6 NATIONAL DEVELOPMENT

Open and Distance Leraning has been an established and acceptable form of continuing education in management, computer and tertiary level education. Thenmozhi (2009) narrates case of University of Madra management education through distance mode course launched in 2002 and modified 2006 where students expect plausibility and flexibility in courses offered, duration is vital factor in opting for courses. Sending project report by post and abolishing viva eradicated time and grographical barriers, study material in Self Instructional Mode exclusively prepared for distance education through highly participative methodology gave interest/motivation to students.

Salooja (2006) narrates how food processing industry has been influenced by ODL programmes. Garg and others (2006) complies cases ODL in variety of sectors impacting the national development in India. Broadly speaking various rural development, mass education and community development programmes offered by ODL institutes across india also contribute to the national development of the country.

Today apart from universities and ODL institutions, different institutions and organizations are also using distance mode for training needs of

different target groups. Training and Development Communication Channel at Development and Educational Communication Unit (DECU), Indian Space Research Organisation (ISRO) is utilized by government, non-government, corporate, academic sectors.

Indian Medical Association (IMA) is providing programmes in family medicine, geriantric care, etc. and Nutritional Institution of Health and Family Welfare is offering programmes in hospital management, health and family welfare management etc. Medical and health programmes of IGNOU are supported by World Health Organisation (WHO), Ministry of Health and Family Welfare, Asian Heart Foundation, Academy of Hospital Administration, Association of Rural Surgeons of India (ARSI), Trained Nurses Association of India (TNAI), and so on. Most of the health related programmes are knowledge based and not skill based. The practical component is taken through contact sessions. The skill based health programmes are in the field of dietatics and nutrition, yoga and counselling.

4.7 LET US SUM UP

Curriculum should focus on three goal; Social, Technical and ultimate goals of human rights/dignity, freedom, justice, peace. Social goals needs to be value-based, based on cross-cultural communal harmony, sensationalisation against social evils and promotion of social values. ODL employs multimedia technology for ensuring equity, access and quality education in a cost-effective manner. It has been an proven method to reach out to those who seek to acquire knowledge and technical know-how through low- cost quality education.

4.8 UNIT END EXERCISE:

Q.1 What is Community development. Explain the programme & features of Community development programme of IGNOU.

Q.2 What is rural development? Explain the different programmes of ODL for rural development.

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5

CURRICULUM PLANNING FOR ODL

Unit Structure :

5.0 OBJECTIVES

After going through this unit you will be able to :

- Explain salient features of behaviouristic theory of learning.
- Distinguish basic features of behaviouristic, cognitivism and constructivism.
- Analyse implications of different theories of learning to curriculum design of ODL.
- Explain the significance of communication theory in course development of ODL
- Identify different elements of course design for ODL.

5.1 INTRODUCTION

Curriculum of ODL means sum total of learning activities and experiences provided to learner under the auspices of any institution of Open Distance Learning. When we talk about learning activities and experiences as key component of curriculum it is essential to understand what is the nature of learning and how learning is perceived function of ODL from different perspectives of learning theories. For instance, in one situation a learner is required to go through study material in a structured sequence and arrive at the end as decided by the course writer. In another case the distance

learner is guided to conduct a project, discover relationship between different situations and events and generalize the findings. In the third situation, a group of distance learners interact with each other on an emerging problem, analyse the solutions already advocated by the experts and give a fresh look to the problem and search for innovative solutions under the support of ODL system. These, three different cases have their roots in different theoretical frameworks of learning viz, behaviorism, cognitivism and constructivism. In this unit, you will be exposed to the nature of different schools of thoughts on learning and their implications in ODL.

5.2 THEORIES OF LEARNING

5.2.1 The Behaviourist Theory :

The Behaviourist Theory (also known Empiricism, Behaviourism, Behavioural Theory, Stimulus-response Theory) stands among the major theoretical perspectives within the field of first language acquisition. It began as a reaction against the introspective psychology of the late 19th and early 20th century and dominated the study of learning throughout the first half of the twentieth century. Although its ascendancy was blurred by the emergence of the innate Theory in the mid 20th century, still today much language learning programmes firmly stands on the foundation laid by the Behaviourist Theory.

Theoretical Assumptions

The theoretical assumptions underlying the Behaviourist Theory are as follows :

- Language learning is a habit formation resembling the formation of other habits. In other words, Language is learned in the way in which other habits are learned.
- Language learning is nothing more than the acquisition of new behaviour or knowledge, it takes place when experience or practice causes a change in a person's knowledge or behaviour.
- Language learning is an external event, because it involves an observable change in behavior brought about by the stimuli coming from the environment, it does not invoive any unobservable change in mental knowledge. All behaviors can be explained without the need to consider internal mental states or consciousness.
- Only human beings have the capacity for language learning. They acquire a language as discrete units of habits, independently trained, not as an integrated system.

Background of the Theory

The behaviourist school of thought ran concurrent with the psychoanalysis movement in psychology in the 20th century. The Behaviourist Theory was

first introduced in 1913 by the American psychologist **John B. Watson**. Watson is credited by some with coining the term "behaviourism" Watson's view was largely influenced by the research of Russian physiologist **Ivan P. Pavlov** during the early 1900s. The most influential version of this theory is put forward by **B. F. Skinner** in 1959. His version of Behaviorsim is best known as **Radical Behaviourism**. Skinner, sought to give ethical grounding to behaviourism, relating it to pragmatism.

Types of Behavioural Learning

Experiments by the behaviourists identify conditioning as a universal learning process. Conditioning are primarily of two types, each yielding a different behavioural pattern :

1. **Classical conditioning :** This conditioning was first described by the Russian physiologist **Ivan Pavlov**, in 1903 through his experiment on dogs. The general idea of Pavlov's experiment is this : Pavlov presented dogs with food to examine their salivary response. He rang a bell just before serving the food. At first the dogs did not salivate until the food is served. However, when the bell was rung at repeated feedings, the sound of bell alone caused the dogs to salivate.

Pavlov's Classical Conditioning

Thus in classical conditioning an unconditioned stimulus (food) is paired with a conditioned stimulus (bell). When they repeatedly occur in pair, the conditioned stimulus acquires the capacity to produce a conditioned response (salivation). Subsequently, the conditioned stimulus alone can produce a conditioned response.

Subsequently, it was studied in infants by **John B. Watson**. Like Pavlov, he was originally involved in animal research, but later became involved in the study of human behaviour. Watson believed that humans are born with a few reflexes and the emotional reactions of love and rage. All other behaviour is established through stimulus-response associations through conditioning.

Watson demonstrated classical conditioning in an experiment involving a young child (Albert) and a white rat. Originally, Albert was unafraid of the rat; but Watson created a sudden loud noise whenever Albert touched the rat. Because Albert was frightened by the loud noise, he soon became conditioned to fear and avoid the rat. The fear was generalized to other small animals. Watson then extinguished the fear by presenting the rat without the loud noise. Some accounts of the study suggest that the conditioned fear was more powerful and permanent than it really was.

2. **Instrumental or Operant Conditioning :** Expanding on **Watson's** basic stimulus-response model, Skinner developed a more comprehensive view of conditioning, known as operant conditioning. Skinner's model was based on the premise that effective language behaviour consists of producing **response** (behaviors) to the correct **stimuli** (situation). When a **response** is followed by a **reinforcer** (reward) then it is **conditioned** to occur again. Thus operant conditioning was used by skinner to describe the effects of the **consequences** of a particular behaviour on the future occurrence of the behaviour. Reinforcement and punishment are the ideas of operant conditioning :

Reinforcement : A reinforcer is a stimulus (encouraging activity) that increase the frequency / occurrence of a response it follows. The act of following a response with a reinforcer is called reinforcement. Reinforcement (prize) can be classified into the following types :

i) Positive Reinforcement : Positive reinforcement is the encouragement of a desired response (behaviour) by a pleasant stimulus. It increases the probability of the reoccurrence of the same response to the same situation. For example : If the child produces an alternative which is appropriate to the situation, the mother will reward him/her with some sign of approval (such as smiles, hugs, or food). This approval or reward will encourage him to repeat the same response to the same situation.

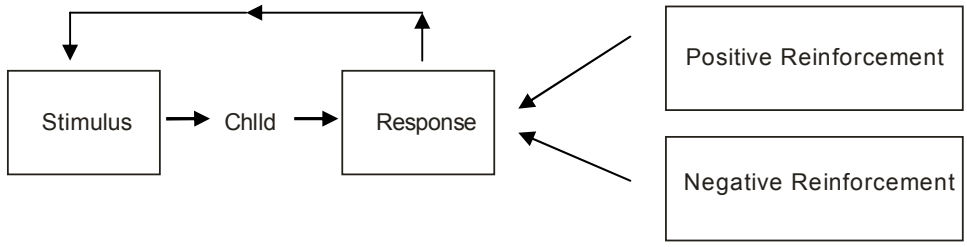
ii) Negative Reinforcement: Negative reinforcement is the discouragement of an undesired response (behaviour) by an unpleasant stimulus. It decreases the probability of the reoccurrence of the same response to the same situation. For example, If the child produces an utterance which is inappropriate to the situation, he/she will not be rewarded. Consequently, the child will not repeat the same response to the same situation.

Punishment : Punishment is used to erase undesirable behviours by presenting a distressing stimulus when the behaviror occurs. Punishment can be classified into the following types :

i) **Positive Punishment :** An undesirable stimulus is received after a behviour occurs. For example, if the learner fails to follow the class then he will be given detention.

ii) **Negative Punishment :** A desirable stimulus is lost or removed after a behaviour occurs. For example, if the learner fails to follow the class rules then he will not be given any recess hour.

Thus, it is quite visible that the Behaviourist Theory (as propounded by Skinner) is represented as a "stimulus - response - reinforcement" chain. For better understanding, this chain can be demonstrated in the following illustration :



The Behaviourist Theory explains two major aspects. It firstly explains how the child produces speech. It secondly explains how he/she understands speech. Positive and negative reinforcement contain various adult utterances which function as discriminating stimuli for the production of the child's responses (behaviour). When the child hears these adult utterances he / she tries to imitate them to produce an utterances which is appropriate to the situation. Reinforcement can come from different sources. The mother is the primary source of reinforcement because she has to take care of the child almost all the time. The people around him / her can also provide reinforcement.

Drawbacks

Although sound in may ways, the theory is not free from limitations. The shortcomings of this theory are as follows :

Firstly, the Behaviourist Theory completely ignores the inborn aspect of human knowledge.

Secondly, the theory puts over emphasis on the role of imitation and ignores completely the creativity of the child, making him / her somewhat passive viewer than actor in the process of language acquisition.

Thirdly, The Behaviourist Theory seems to be somewhat mechanical in nature, since the child is considered a passive object.

Fourthly, it cannot develop the child's problem solving skills. The child may find himself/herself in a situation where the stimulus to the correct response does not occur. In such cases the child won't be able to respond.

Fifthly, it falls to explain how the child understands utterances he/ she has never heard before, or produces new and unique utterances.

Finally, the Behaviourist Theory cannot explain how the child proceeds in his/her journey of language acquisition at such a young age.

Anyway this theory has it's impact on ODL in the following ways :

- PLM
- Computer assisted learning package
- self instruction materials.

Conclusion

The Behaviousit Theory came under fierce attack when Chomsky proposed his Innate Theory in 1959. Chomsky's theory strongly proved that the child is not a tabula rasa; rather he is born with an innate capability to learn language. Nevertheless, along with all of its limitations, the Behaviourist Theory was able to govern the direction of the psychological explanation of language acquisition quite productively. After its emergence, this theory was passively accepted by the influential Bloomfieldian structuralist school of linguistics and produced some well-known models of foreign language teaching, most notably, the **Audio Lingual Method**. For many years, the concepts from the Behaviourist Theory formed the basis of most of the learning theory applied in child rearing and in classrooms. Parents and teachers still find that, in many instances, individuals do learn when provided with the appropriate blend of stimulus, reinforcement, and punishments. Especially with small children and simpler tasks, behaviourist principles are often effective. Thus, the contribution of the Behaviourist Theory as an explanation of child language development cannot be overlooked altogether.

Check your Progress - I

Q.1 What are the theoretical assumptions underlying the behaviourist theory? Explain the operant conditioning theory and it's impact on ODL.

5.2.2 Cognitive Learning Theory :

Process

History of theorists and their contributions

Noam Chomsky (1957)

Bruner, Goodnow, and Austin (1956)

Ulric Neisser (1967)

Jerome Bruner

David Ausubel

Edward Tolman

A prominent learning theorist during the heyday of behaviorism, yet his work had a distinctly cognitive flair. Tolman developed his mentalistic view of learning by using adaptive versions of behaviorist research. There are several central ideas of his theory :

1. Behavior should be studied at a molar level.
2. Learning can occur without reinforcement.
3. Learning can occur without a change in behaviour.

4. Intervening variables must be considered.
5. Behaviour is purposive.
6. Expectations affect behaviour.
7. Learning results in an organized body of information.

The Gestalt psychologists of Germany

- Marx Wertheimer
- Wolfgang Kohler
- Kurt Koffka

Gestalt psychologists emphasized the importance of organizational processes in perception, learning and problem solving and believed that individuals were predisposed to organize information in particular ways.

There are several basic ideas of the Gestalt Theory :

1. Perception is often different from reality.
2. The whole is more than the sum of its parts.
3. The organism structures and organizes experience.
4. The organism is predisposed to organize experience in particular ways.
5. Learning follows the law of Pragnanz.
6. Problem solving involves restructuring and insight.

Jean Piaget

Piaget focused on mental events - logical reasoning processes and the structure of knowledge. It incorporates such diverse topics as language, logical reasoning, moral judgements, and conceptions of time, space, and number, the major components of Piaget's research in volve the following

1. People are active processors of information.
2. knowledge can be described in terms of structures that change with development.
3. Cognitive development results from the interactions that children have with their physical and social environments.
4. The process through which people interact with the environment remain constant.
5. People are intrinsically motivated to try to make sense of the world around them.

6. Cognitive development occurs in distinct stages, with thought processes at each stage being qualitatively different from those at other stages.

Lev Vygotsky

Vygotsky died at a young age, but had several influential ideas in the field of cognitivism, such as :

1. Complex mental process begin as social activities; as children develop, they gradually internalize these processes and can use them independently of those around them.
2. Thought and language initially develop independently of each other, the two become independent when children are about two years old.
3. Children can accomplish more difficult tasks when they have the assistance of people more advanced and competent than themselves.
4. Tasks within the zone of proximal development promote maximum cognitive growth.

Critical components / principles

Some of the critical components of cognitivisim are :

- A Dual - Store Model of Memory : there are many types of input and information being received by an individual at any given time.
- Sensory Register : information is filterd by the individual and short - term memory begins processing.
- Moving Information on to Working Memory : The Role of Attention
- Working Memory : the learner makes a decision to "work" with a particular piece of information, continuing to process the information.
- Long-Term Memory : at some point the information of importance to the learner has been organized and stored for later retrieval.
- Are Working Memory and Long - Term Memory really Different?

Learning / Information Process (Relation to Events of Instruction)

1. Reception of patterns
2. Executive control process
3. Retrieval of prior learning.
4. Selective perception
5. Semantic encoding
6. Response organization

7. Reinforcement
8. Activating Retrieval for Reinforcement
9. Strategies for Retrieval

There are various perspectives within cognitivism :

- Information Processing Theory (shown above)
- Constructivism
- Contextual Views

There are those who would then integrate the different cognitive perspectives.

Basic Concepts

Learning vs. Memory

Learning is the acquisition of new information. Memory is related to the ability to recall information that has previously been learned.

Storage

The process of "putting" new information in memory.

Encoding

The process of storing information in memory and modifying it in some way.

Retrieval

The process by which people "find" information they have previously stored in memory so that they can use it again.

During this information processing, there are various things to consider :

Characteristics of the Sensory Register

1. Capacity
2. Form of Storage
3. Duration

Factors Influencing Attention

1. Size
2. Intensity
3. Novelty
4. Incongruity

5. Emotion
6. Personal Significance

Characteristics of Working Memory

1. Capacity
2. Form of Storage
3. Duration

Information is constantly processed through the sensory registers. There are various factors that influence an individual's ability to process information. Information goes into our short-term / working memory for mere seconds. We organize the information and decide what to keep and what to discard. Stored information is in our long-term memory for later retrieval.

Control Processes in Working Memory

1. Organization
2. Retrieval
3. Maintenance Rehearsal

Characteristics of Long-Term Memory

1. Capacity
2. Form of Storage
3. Duration

Control Processes in Long-Term Memory

1. Storage
2. Retrieval

Ideas how this theory informs Instructional Design

Gagne's Nine Events of Instruction

(Relation to Processes of Learning)

1. Gaining attention
2. Informing the learner of the objective
3. stimulating recall of prerequisite knowledge
4. Presenting the stimulus material
5. Providing learning guidance
6. Eliciting the performance
7. Providing feedback about performance
8. Assessing the performance
9. Enhancing retention and transfer

These nine steps of instruction directly relate to the learning / information process.

5.2.3 Constructivist Learning Theory :

Introduction :

The latest catchword in educational circles is “constructivism,” applied both to learning theory and to epistemology --- both to how people learn, and to the nature of knowledge. We don’t need to succumb to each new fad, but we do need to think about our work in relation to theories of learning and knowledge. So we need to ask : what is constructivism, what does it have to tell us that is new and relevant, and how do we apply it to our work? As far as I can see, there is nothing dramatically new in constructivism: the core ideas expressed by it, have been clearly enunciated by John Dewey among others, but there is a new, widespread acceptance of this old set of ideas, and new research in cognitive psychology to support it. I would like to give a brief exposition of ideas central to constructivism and widely accepted today by educators.

Constructivism

What is meant by constructivism? The term refers to the idea that learners construct knowledge for themselves --- each learner individually (and socially) constructs meaning --- as he or she learns. Constructing meaning is learning; there is no other kind. The dramatic consequences of this view are twofold;

1) We have to focus on the learner in thinking about learning (not on the subject / lesson to be taught) :

2) There is no knowledge independent of the meaning attributed to experience (constructed) by the learner, or community of learners.

Let me discuss the second point first because, although it appears radical on an everyday level, it is a position which has been frequently adopted ever since people began to ponder epistemology. If we accept constructivist theory (which means we are willing to follow in the path of Dewey, Piaget and Vigotsky among others), then we have to give up Platonic and all subsequent realistic views of epistemology. We have to recognize that there is no such thing as knowledge “out there” independent of the knower, but only knowledge we construct for ourselves as we learn. Learning is not understanding the “true” nature of things, nor is it (as Plato suggested) remembering dimly perceived perfect ideas, but rather a personal and social construction of meaning out of the bewildering array of sensations which have no order or structure besides the explanations (and I stress the plural) which we fabricate for them.

I’m sure that many of you have had philosophy courses which exposed you to these concepts, and you may accept this basic premise that there is no such entity as a Ding an sich whether or not we can perceive it. Yet we all tend to remain closet realists, and refute Bishop Berkeley, as Samuel

Johnson did, by kicking the stone and feeling real pain. The more important question is, does it actually make any difference in our everyday work whether deep down we consider knowledge to be about some "real" world independent of us, or whether we consider knowledge to be of our own making? The answer is yes, it does make a difference, because of the first point I suggested above: in our profession our epistemological views dictate our pedagogic views.

If we believe that knowledge consists of learning about the real world out there, then we endeavor first and foremost to understand that world, organize it in the most rational way possible, and as teachers, present it to the learner. This view may still engage us in providing the learner with activities, with hands - on learning, with opportunities to experiment and manipulate the objects of the world, but the intention is always to make clear to the learner the structure of the world independent of the learner. We help the learner understand the world. But we don't ask him to construct his or her own world.

The great triumph of Western intellectual history from the Enlightenment until the beginning of the 20th century rested on its ability to organize the knowledge of the world in a rational way independent of the learner, determined by some structure of the subject. Disciplines were developed, taxonomic schemes established, and all these categories were viewed as components of a vast mechanical machine in which the parts could be explained in terms of their relationship to each other, and each part contributed to making the whole function smoothly. Nowhere in this description does the learner appear. The task of the teacher was to make clear to the learner the working of this machine and any accommodation to the learner was only to account for different appropriate entry points for different learners.

However, as I have indicated above, constructivist theory requires that we turn our attention by 180 degrees we must turn our back on any idea of an all-encompassing machine which describes nature and instead look towards all those wonderful, individual living beings --- the learners --- each of whom creates his or her own model to explain nature. If we accept the constructivist position we are inevitably required to follow a pedagogy which argues that we must provide learners with the opportunity to : a) interact with sensory data, and b) construct their own world.

This second point is a little harder for us to swallow, and most of us constantly vacillate between faith that our learners will indeed construct meaning which we will find acceptable (whatever we mean by that) and our need to construct meaning for them; that is, to structure situations that are not free for learners to carry out their own mental actions, but "learning" situations which channel them into our ideas about the meaning of experience. A common example of the unresolved tension is our attitude towards museum tours which explain exhibits to the visitor. I have repeatedly asked museum professionals if they personally enjoy guided tours, and they almost universally tell me that they try to avoid them at all costs. Yet, our colleagues frequently give us extensive guided tours

through galleries, insisting on presenting the expert guide's interpretation, pace and selection to influence the viewer's perception and learning. It is this tension between our desire as teachers to teach the truth, to present the world "as it really is", and our desire to let learners construct their own world which requires us to think seriously about epistemology and pedagogy.

Principles of learning

What are some guiding principles of constructivist thinking that we must keep in mind when we consider our role as educators? I will outline a few ideas, all predicated on the belief that learning consists of individuals' constructed meanings and then indicate how they influence education.

1. Learning is an active process in which the learner uses sensory input and constructs meaning out of it. The more traditional formulation of this idea involves the terminology of the active learner (Dewey's term) stressing that the learner needs to do something; that learning is not the passive acceptance of knowledge which exists "out there" but that learning involves the learners engaging with the world.

2. People learn to learn as they learn; learning consists both of constructing meaning and constructing systems of meaning. For example, if we learn the chronology of dates of a series of historical events, we are simultaneously learning the meaning of a chronology. Each meaning we construct makes us better able to give meaning to other sensations which can fit a similar pattern.

3. The crucial action of constructing meaning is mental: it happens in the mind. Physical actions, hands-on experience may be necessary for learning, especially for children, but it is not sufficient; we need to provide activities which engage the mind as well as the hands. (Dewey called this reflective activity.)

4. Learning involves language: the language we use influences learning. On the empirical level, researchers have noted that people talk to themselves as they learn. On a more general level. There is a collection of arguments, presented most forcefully by Vigotsky, that language and learning are inextricably intertwined. The desire to have material and programs in their own language was an important request by many members of various communities.

5. Learning is a social activity : our learning is intimately associated with our connection with other human beings, our teachers, our peers, our family as well as casual acquaintances, including the people before us or next to us at the exhibit. We are more likely to be successful in our efforts to educate if we recognize this principle rather than try to avoid it. Much of traditional education, as Dewey pointed out, is directed towards isolating the learner from all social interaction, and towards seeing education as a one-on-one relationship between the learner and the objective material to be learned. In contrast, progressive education (to continue to use Dewey's formulation) recognizes the social aspect of

learning and uses conversation, interaction with others, and the application of knowledge as an integral aspect of learning.

6. Learning is contextual : we do not learn isolated facts and theories in some abstract ethereal land of the mind separate from the rest of our lives : we learn in relationship to what else we know, what we believe, our prejudices and our fears. On reflection, it becomes clear that this point is actually a corollary of the idea that learning is active and social. We cannot divorce our learning from our lives.

7. One needs knowledge to learn : it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on. The more we know, the more we can learn. Therefore any effort to teach must be connected to the state of the learner, must provide a path into the subject for the learner based on that learner's previous knowledge.

8. It takes time to learn : learning is not instantaneous. For significant learning we need to revisit ideals, ponder them try them out, play with them and use them. This cannot happen in the 5-10 minutes usually spent in a gallery (and certainly not in the few seconds usually spent contemplating a single museum object.) If you reflect on anything you have learned, you soon realize that it is the product of repeated exposure and thought. Even, or especially, moments of profound insight, can be traced back to longer periods of preparation.

9. Motivation is a key component in learning. Not only is it the case that motivation helps learning, it is essential for learning. This ideas of motivation as described here is broadly conceived to include an understanding of ways in which the knowledge can be used. Unless we know "the reasons why", we may not be very involved in using the knowledge that may be instilled in us, even by the most sever and direct teaching.

Check your progress - II

Q.1 What are the principles of learning according to constructivist thinking? Explain the implication of constructivism to education.

Q.2 Explain Gagne's ideas of instructional design.

5.3 THEORIES OF COMMUNICATION AND ODL

Introduction :

In our daily life we read news papers, watch TV, talk to our friends by mobile phone. By doing these activities we get information, become emotionally attached to a character, express views on certain events and so on. It is possible because of different means of communication. Distance education implies imparting varied learning experiences to learners located at far fetched geographical situations. The means of providing different kinds of learning experiences and organising meaningful learning

activities in distance education situation are different from those of traditional face to face mode situation. A thorough understanding of communication theories and process help us to design curriculum of open distance learning situation. In this unit you will also be exposed to the concept of communication, models of communication, types of communication, means of communication and theories of communication. You will be able to visualize the implications of communication theories in ODL system.

Meaning & Characteristics of Communication :

Communication is the meaningful interaction with people in such a manner that the ideal thought is same and getting the feedback also. Communication is commonly defined as "the exchange of thoughts, ideas, feelings, information, opinions, and knowledge". It also involves mutuality of understanding.

Definitions of Communication :

- Communication is meaningful interaction.
- Communication is information sharing.
- Communication is a link force.
- Communication is understanding.
- Communication is fundamental requisite of life.

Important Characteristics of Communication :

- It is a 2 - way process.
- Communication process happens between or among two or more parties. (Sender and Receiver)
- Communication involves exchange of ideas, feelings, information, thoughts, and knowledge.
- Communication involves mutuality of understanding between Sender and Receiver.
- There are two types of Communication i.e., Verbal and Non-Verbal Communication.

Forms / Types of Communication :

Verbal Communication :

1. Oral Communication : Oral communication is information spoken by mouth; the use of speech. Some of the examples of Oral Communication are : Face to face communication, telephonic Communication, Public Address System (Speech), Informal rumor mill (Grape Wine), Audio &

Visual Media (Radio, TV), Lectures, Conference - Interchange of views, Meetings, Cultural Affairs.

2. Written Communication : Communication by means of written symbols (either printed or handwritten). Some of the examples are : Orders, Instructions, Letters, Memos, Reports, Policy manuals, Information Bulletin, Complaint System, Suggestion System, etc.

Nonverbal Communication :

1. Body Language includes facial expression, eye contact, postures, gestures, touch.

2. Para Language is the way we say something rather than what we say, is another nonverbal code.

3. Space and Time Language :

   Space Language includes surroundings (Design & Language). It communicates social status also.

4. Sign Language : A sign language is a language which, instead of conveyed sound patterns, uses visually transmitted sign patterns.

Human communication is understood in various ways by those who identify with the field. This diversity is the result of communication being a relatively young field of study, composed of a very broad constituency of disciplines. It includes work taken from scholars of Rhetoric, Journalism, Sociology, Psychology, Anthropology, and Semiotics, among others.

Cognate areas include bio communication , which investigates communicative processes within and among non-humans such as bacteria, animals, fungi and plants, and information theory, which provides a mathematical model for measuring communication within and among systems.

Generally, human communication is concerned with the making of meaning and the exchange of understanding about human development. One model of communication considers it from the perspective of transmitting information from one person to another. In fact, many scholars of communication take this as a working definition, and use Lasswell's maxim, "who says what to whom in which channel with what effect," as a means of circumscribing the field of communication theory. Among those who subscribe to the transmission model are those who identify themselves with the communication sciences, and finds its roots in the studies of propaganda and mass media of the early 20^{th} century.

Other commentators claim that a ritual process of communication exists, one not artificially divorcible from a particular historical and social context. This tradition is largely associated with early scholars of symbolic interactionsim as well as phenomenologist.

Constructionist Models :

There is an additional working definition of communication to consider that authors like Richard A. Lanham (2003) and as far back as Erving Goffman (1959) have highlighted. This is a progression from Lasswell's attempt to define human communication through to this century and revolutionized into the constructionist model. Constructionists believe that the process of communication is in itself the only messages that exist. The packaging can not be separated from the social and historical context from which it arose, therefore the substance to look at in communication theory is style for Richard Lanham and the performance of self for Erving Goffman.

Lanham chose to view communication as the rival to the over encompassing use of CBS model (which pursued to further the transmission model). CBS model argues that Clarity, Brevity, and Sincerity are the only purpose to prose discourse, therefore communication. Lanham wrote, "If words matter too, if the whole range of human motive is seen as animating prose discourse, then rhetoric analysis leads us to the essential questions about prose style" (Lanham 10). This is saying that rhetoric and style are fundamentally important; they are not errors to what we actually intend to transmit. The process which we construct and deconstruct meaning deserves analysis.

Erving Goffman sees the performances of self as the most important frame to understand communication. Goffman wrote, "What does, seem to be required of the individual is that he learnt enough pieces of expression to be to 'fill in' and manage, more or less, any part that he is likely to be given" (Goffman 73) The truth in both cases is the articulation of the message and the package as one. The construction of the message from social and historical context is the seed as is the pre-existing message is for the transmission model. Therefore any look into communication theory should include the possibilities drafted by such great scholars as Richard A. Lanham and Erving Goffman that style and performance is the whole process. Communication stands so deeply rooted in human behaviors and the structures of society that scholars have difficulty thinking of it while excluding social or behavioral events. Because communication theory remains a relatively young field or inquiry and integrates itself with other disciplines such as philosophy, psychology, and sociology, one probably cannot yet except a consensus conceptualization of communication across disciplines.

Communication Model Terms as provided by Rothwell:

Noise; interference with effective transmission and reception of a message.

For example; physical noise or external noise which are environmental distractions such as poorly heated rooms, startling sounds, appearances of things, music playing some where else, and someone talking really loudly near you.

Physiological noise are biological influences that distract you from communicating competently such as sweaty palms, pounding heart, butterfly in the stomach, induced by speech anxiety, or feeling sick, exhausted at work, the ringing noise in your ear, being really hungry, and if you have a runny noise or a cough.

Psychological noise are the preconception bias and assumptions such as thinking someone who speaks like a valley girl is dumb, or someone from a foreign country can't speak English well so you speak loudly and slowly to them.

Semantic noise are word choices that are confusing and distracting such as using the word tri-syllabic instead of three syllables.

Sender, the initiator and encoder of a message Receiver, the one that receives the message (the listener) and the decoder of a message.

Decode; translates the senders spoken idea / message into something the receiver understands by using their knowledge of language from personal experience.

Encode; puts the idea into spoken language while putting their own meaning into the word/message.

Channel; the medium through which the message travels such as through oral communication (radio, television, phone, in person) or written communication (letters, email, text messages)

Feedback; the receivers verbal and nonverbal responses to a message such as a nod for understanding (nonverbal), a raised eyebrow for being confused (nonverbal), or asking a question to clarify the message (verbal).

Message; the verbal and nonverbal components of language that is sent to the receiver by the sender which conveys an idea.

Linear Model - is a one way model to communicate with others. it consists of the sender encoding a message and channeling it to the receiver in the presence of noise. Draw backs - the linear model assumes that there is a clear cut beginning and end to communication. It also displays no feedback from the receiver.

For example; a letter, email, text message, lecture.

Interactive Model - is two linear models stacked on top of each other. The sender channels a message to the receiver and the receiver then becomes the sender and channels a message to the original sender. This model has added feedback, indicates that communication is not a one way but a two way process. It also has "field of experience" which includes our cultural background, ethnicity geographic location, extend of travel, and general personal experiences accumulated over the course of your lifetime. Draw backs - there is feedback but it is not simultaneous.

For example - instant messaging (IM). The sender sends an IM to the receiver, then the original sender has to wait for the IM from the original receiver to react. Or a question / answer session where you just ask a question then you get an answer.

Transactional Model - assumes that people are connected through communication; they engage in transaction. Firstly, it recognizes that each of us is a sender - receiver, not merely a sender or a receiver. Secondly, it recognizes that communication affects all parties involved. So communication is fluid / simultaneous. This is how most conversations are like. The transactional model also contains ellipses that symbolize the communication environment (how you interpret the data that you are given). Where the ellipses meet is the most effect communication area because both communicators share the same meaning of the message.

For example - talking / listening to friends. While your friend is talking you are constantly giving them feedback on what you think through you facial expression verbal feedback without necessarily stopping your friend from talking.

History of Communication Theory

The Academic Study of Communication

Communication has existed since the beginning of human beings, but it was not until the 20th century that people began to study the process. As communication technologies developed, so did the serious study of communication. When World War I ended, the interest in studying communication intensified. The social - science study was fully recognized as a legitimate discipline after World War II.

Before becoming simply communication, or communication studies, the discipline was formed from three other major studies : psychology, sociology, and anthropology. Psychology is the study of human behavior, Sociology is the study of society and social and social process, and anthropology is the study of communication as a factor which develops, maintains, and changes culture.

Communication studies focus on communication as central to the human experience, which involves understanding how people behave in creating, exchanging, and interpreting messages.

Communication Theory has one universal law posited by S. F. Scudder (1980). The Universal Communication Law states that, “All living entities, beings and creatures communicate.” All life communicates through movements, sounds, reactions, physical changes, gestures, languages, and breath. Communication is a means of survival. Examples – the cry of a child (communicating that it is hungry, hurt or cold); the browing of a leaf (communicating that it is dehydrated, thirsty per se, or dying); the cry of an animal (communicating that it is injured, hungry or angry). Everything living communicates in its quest for survival.”

Communication Theory Framework

It is helpful to examine communication and communication theory through one of the following viewpoints:

- Mechanistic: This view considers communication as a perfect transaction of a message from the sender to the receiver.

- Psychological : This view considers communication as the act of the sending a message to a receiver, and the felling and thoughts of the receiver upon interpreting the message.

- Social Constructionist (Symbolic Interactionist): This view considers communication to be the product of the interactants sharing and creating meaning. The Constructionist View can also be defined as, how you say something determines what the message is. The Constructionist View assumes that "Truth" and "ideas" are constructed or invented through the social process of communication. Robert T. Craig saw the Constructionist View or the constitutive as it's called in his article, as "…an ongoing process that symbolically forms and re-forms our personal identities." (Craig). The other view of communication, the Transmission Model, sees communication as robotic and computer-like. The Transmission Model sees communication as a way of sending or receiving messages and the perfection of that. But, the Constructionist View sees communications as, "… in human life, information does not behave as simply as bits in an electronic stream. In human life, information flow is far more like an electric current running from one landmine to another" (Lanham). The Constructionist View is a more realistic view of communication because it involves the interacting of human beings and the free sharing of thoughts and ideas. Daniel Chandler look to prove that the Transmission Model is a lesser way of communicating by saying "The transmission model is not merely a gross over-simplification but a dangerously misleading representation of the nature of human communication" (Chandler). Humans do not communicate simply as computers or robots to that's why its essential to truly understand the Constructionist View of Communication well. We do not simply send facts and data to one another, but we take facts and data and they acquire meaning through the process of communication; or through interaction with others.

- Systemic: This view considers communication to be the new messages created via "through-put", or what happens as the message is being interpreted and re-interpreted as it travels through people.

- Critical: This view considers communication as a source of power and oppression of individuals and social groups.

Inspection of a particular theory on this level will provide a framework on the nature or communication as seen within the confines of the theory.

Theories can also be studied and organized according to the ontological, epistemological, and axiological framework imposed by the theorist.

Ontology essentially poses the question of what, exactly, it is the theorist is examining. One must consider the very nature of reality. The answer usually falls in one of three realms depending on whether the theorist sees the phenomena through the lens of a realist, nominalist, or social constructionist. Realist perspective views the world objectively, believing that there is a world outside of our own experience and cognitions. Nominalists see the world subjectively, claiming that everything outside of one's cognitions is simply names and labels. Social constructionists straddle the fence between objective and subjective reality, claiming that reality is what we create together.

Epistemology is an examination of how the theorist studies the chosen phenomena. In studying epistemology, particularly from a positivist perspective, objective knowledge is said to be the result of a systematic look at the causal relationships of phenomena. This knowledge is usually attained through use of the scientific method. Scholars often think that empirical evidence collected in an objective manner is most likely to reflect truth in the findings. Theories of this ilk are usually crated to predict a phenomenon. Subjective theory holds that understanding is based on situated knowledge, typically found using interpretative methodology such as ethnography and also interviews. Subjective theories are typically developed to explain or understand phenomena in the social world.

Axiology is concerned with how values inform research and theory development. Most communication theory is guided by one of three axiological approaches. The first approach recognizes that values will influence theorists interests but suggests that those values must be set aside once actual research begins. Outside replication of research findings is particularly important in this approach to prevent individual researchers values from contaminating their findings and interpretations. The second approach rejects the idea that values can be eliminated from any stage of theory development. Within this approach, theorists do not try to divorce their values from inquiry. Instead, they remain mindful of their values so that they understand how those values contextualize. Influence or skew their findings. The third approach not only rejects the idea that values can be separated from research and theory, but rejects the idea that they should be separated. This approach is often adopted by critical theorists who believe that the role of communication theory is to identify oppression and produce social change. In this axiological approach, theorists embrace their values and work to reproduce those value in their research and theory development.

Mapping the theoretical landscape

A discipline gets defined in large part by its theoretical structure. Communication studies often borrow theories from other social sciences. This theoretical variation makes it difficult to come to terms with the field as a whole. That said, some common taxonomies exist that serve to divide up the range of communication research. Two common mappings involve contexts and assumptions.

Contexts

May authors and researchers divide communication by what they sometimes called ”Contexts” or “levels”, but which more often represent institutional histories. The study of communication in the US, while occurring within departments of psychology, sociology, Iinguistics, and anthropology (among others), generally developed from schools of rhetoric and from schools of journalism. While many of these have become “departments of communication”, they often retain their historical roots, adhering largely to theories from speech communication in the former case, and from mass media in the latter. The great divide between speech communication and mass communication becomes complicated by a number of smaller sub-areas of communication research, including intercultural and international communication, small group communication, communication technology, policy and legal studies of communication. Telecommunication, and work done under a variety of other labels. Some of these departments take a largely social-scientific perspective, others tend more heavily toward the humanities, and still others gear themselves more toward production and professional preparation.

These “levels” of communication provide some way of grouping communication theories, but inevitably, some theories and concepts leak from one area to another, or fail to find a home at all.

The Constitutive Metamodel

Another way of dividing up the communication field emphasizes the assumptions that undergird particular theories, models, and approaches. Robert T. Craig suggests that the field of communication as a whole can be understood as several different traditions who have a specific view on communication. By showing the similarities and differences between these traditions, Craig argues that the different traditions will be able to engage each other in dialogue rather than ignore each other. Craig proposes seven different traditions which are:

1. Rhetorical: views communication as the practical art of discourse.
2. Semiotic: views communication as the mediation by signs.
3. Phenomenological: communication is the experience of dialogue with others.
4. Cybernetic: communication is the flow of information.
5. Socio-psychological: communication is the interaction of individuals.
6. Socio-cultural: communication is the production and reproduction of the social order.
7. Critical: Communication is the process in which all assumptions can be challenged.

Craig finds each of these clearly defined against the others, and remaining cohesive approaches to describing communicative behavior. As a taxonomic aid, these labels help to organize theory by its assumptions. And help researchers to understand why some theories may seem incommensurable.

While communication theorists very commonly use these approaches, theorists decentralize the place of language and machines as communicative technologies. The idea (as argued by Vygotsky) of communication as the primary tool of a species defined by its tools remains on the outskirts of communication theory. It finds some representation in the **Toronto School of communication theory** (alternatively sometimes called medium theory) as represented by the work of Innis, McLuhan, and others. It seems that the ways in which individuals and groups use the technologies of communication – and in some cases are used by them – remain central to what communication researchers do. The ideas that surround this, and in particular the place of persuasion. remain constants across both the "traditions" and "levels" of communication theory.

Role of Communication in ODL

Communication has a vital role in ODL system. Its criticality arises due to distributed nature of program delivery and student support services. For a distance learner waiting for crucial information at various stages of study, the information must be made available at the earliest and with clarity. Lack of appropriate communication has been cited as one of the reasons for student attritions (Fozdaret al, 2006). This makes it imperative to ensure inculcation of communication skills among the staff at all levels. The scale of requirement can be realized, if we trace the recent developments. The distance education institutions have changed the scenario by offering education to a mass scale. The advent of ICT has to doubt made communication faster and easier; still, it has raised the expectation level of the learners. It has also a compelling effect on the institutions to change the style and format of official correspondence (Moran and Rumble, 2004, p.). The distance education institutions, even if they adopt dual mode, have to generate funds to sustain their operations; this segment, barring the government run open universities, is not offered any government grant. The institutions have to work hard to get a sizable enrolment. In such a competitive environment, the institutions have to be alert in adapting to changing modes of technology to offer quality service to the clientele. In the self financing context, the institutions desire to expand their ambit of operations through unconventional modes. The result is corporate tie-up for the offer of many executive training programs. It is possible that many of these institutions could wait for collaborative ventures with foreign higher education institutions for even back office operations, once the Indian Parliament gives final clearance for their entry into Indian soil. Significant number of institutions are also waiting for approval for GATS related issues, since it could support new ventures. Newer delivery models and partnerships could emerge. All these

developments have placed considerable demand for skill enhancement of the staff in the distance education institutions.

Implications of different theories of communication in development of curriculum of ODL's are:

- Identifying objectives
- Learner characteristics
- Resource analysis
- Course content
- Media input & material production
- Tutor/ Counsellor/ Expert input
- Delivery Mechanism
- Evaluation and Feedback

Check Your Progress - III

1. Explain the models of communication and role of communication in ODL.

5.4 INSTRUCTIONAL DESIGN FOR OPEN AND DISTANCE LEARNING

Instructional system of Open and Distance Learning is very complex. Unlike face to face mode instruction in classrooms and learning experiences provided in college campus distance education institution facilitates learning through various forms. Instructional inputs and process in distance education take care of special feature of distance learners and instructional goals and objectives. How to proceed with instructional design in ODL context is a complex question. For instance keeping in view the mission and nature of Open Distance Learning System the aims and objectives of distance education programme are very much wide. The major challenge before a course designer in ODL context is to be clear about theoretical and applied contexts of the system so that appropriate instructional packages can be designed for distance learners. In the following unit you will be exposed to different components of instructional system, the steps of development of instructional packages and writing of instructional units.

5.4.1 Setting Educational Goals

General Educational goals are framed on the following basis.

- Philosophical bases

- Socio psychological bases

-Statement of aims (Examples of M.A, Education programme: To develop

To inculcate

To foster appreciation

5.4.2 Defining Course Objectives

Defining course objectives is the action form statement of course objective: Learners will be 'able to do at the end" (which can be witnessed in learners performance) objectives are framed under the three domain

- Cognitive
- Affective
- Psychomotor

Example of Aims – To develop

To inculcate

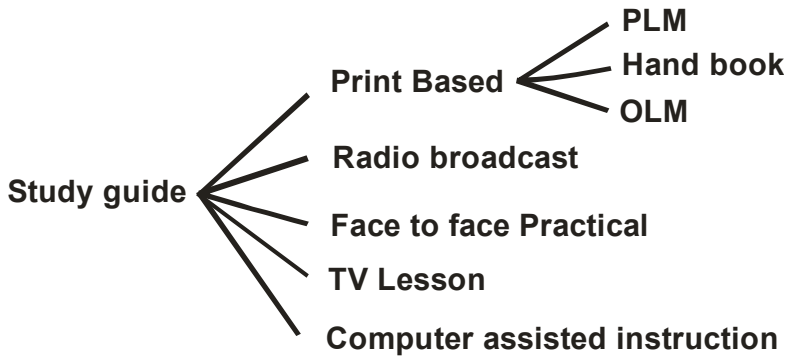
To faster an appreciation

Example of Objectives:

A statement of objective help learners to understand the thrust of a course unit and to organize their study accordingly.

5.4.3 Deciding learning experiences:

Learning experiences can be decided in any form of the following.



5.4.4 Organisation of learning experiences

Content

Selecting subject matter

Criteria for ordering material

-Topic – by topic topic 1

2

3

4

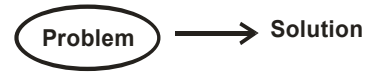
- Sequence – What precedes what?

Time

- Structural logic approach – disciplines own logical approach

- Concentric Circle approach

- Problemcentred approach



- Spiral approach

Moving from specific to general

Known to unknown

Simple tom complex

5.4.5 Deciding evaluation schemes

Learner evaluation: Self Assessment

↓

Inbuilt part of content

↓

Assignment – Tutor marked

Peer evaluation – Microteaching

Practicals-

Computer – marked assessment

Term and assessment

Check Your progress –IV

Q.1 Explain how will you organize leaning experiences?

5.5 LET US SUM UP

In this unit we have discussed theories of learning, theories of communication & designing instruction for ODL. Under theories of leaning we have touched the following theories:

- Behaviorist theories of learning focuses only on the objectively observable aspect of learning.
- Cognitive theory look beyond behaviour to explain brain bsed learning.
- Constructivist theory views learning as a process in which the learner actively constructs or builds new ideas or concepts.

Theories of communication have vital role in ODL system. Different models of communication helps in this direction.

Instructional design for ODL follows some steps like:

- Setting educational goals on the basis of philosophy & socio-psychology
- Defining course objectives under cognitive conative & affective domain
- Deciding learning experiences from print based and study slides
- Organizing learning experiences on the basis of content, sequence approach
- Deciding schemes.

Curriculum can be framed for ODL on the basis of different the theories discussed.

5.6 UNIT END EXERCISE

Q.1 What are the different theories of learning? Explain the theory which you think is more associated with ODL.

Q.2 Write short notes on:

a) Models of communication

b) Characteristics of constructivist learning

c) Deciding evaluation scheme.

Reference

- Mangal, s. K. (1998) Educational Psychology.
- IGNOU (2008 study materials of PGDDE.

6

CURRICULUM TRANSACTION OF ODL- INSTRUCTIONAL DESIGN

Unit Structure :

6.0 OBJECTIVES

This unit deals with a brief introduction to instructional designs and its importance in the ODL, an understanding of the stage of system requirements which is a necessary step in the designing of an instructional system for ODL. This sub unit is followed by the steps of designing an instructional system and evaluating systems effectiveness with regard to learner characteristics, instructional media and types of evaluation that can be used. Hence by the end of the unit you will be able to:

- Describe the importance of instructional designs in ODL,
- Explain the need for instructional designs in ODL with respect to the advantages of ODL,
- Discuss the steps for analyzing systems requirements,
- Describe the steps for designing an instructional system,
- State the different types of evaluation of an instructional system with regard to learner characteristics and instructional media,

- Explain the need for terminal and continuous evaluation systems effectiveness.

6.1 INTRODUCTION

Open and distance learning (ODL) combines two forms of education – open and distance – that focus on expanding access to learning. It is characterised by two factors: its philosophy and its use of technology.

Most ODL systems have a **philosophy** that aims to:

• remove barriers to education, and

• allow students to study what they want, when they want and where they want.

In short, ODL is about increasing educational **access** and increasing educational **choice**.

ODL systems typically use **technology** to mediate learning, for example:

• printed workbooks

• audio cassettes

• radio

• the web.

There is no one method for providing ODL, so a wide variety of courses are described as 'open learning' or as 'distance learning'. Some typical examples are shown in Figure 1. The variety is instructive. In some cases, students work almost entirely by themselves (e.g., correspondence courses); in others they study in groups (e.g., interactive radio); and in still others they might meet together at intervals (e.g., distance teacher training). There is an equally wide variety of purposes to which ODL is put, ranging from primary education to post-school study of the secondary curriculum and, ultimately, professional updating.

6.2 INSTRUCTIONAL DESIGN: WHAT IT IS AND WHY IT IS IMPORTANT IN ODL

This part looks at how instructional design is used to create learning materials that will replicate what the teacher does in the classroom. Definitions of instructional design are provided and the main steps in the process of creating materials are described.

The three main theoretical approaches to instructional design used in the history of ODL are then presented. The point is also made, however, that despite theories and the systematic approaches, 'the field of instructional design is more like a craft while it claims to be a technology' (Elen and Clarebout, 2001). There are several words and phraseologies associated with the word 'Instruction'. Most common ones are , and . According to

Mukopadhyay (2001) 'Instructional Science provides the theoretical construct to the process of instruction'. 'Instructional Technology is the applied aspect of Instructional Science based on Instructional Design'. The meaning of Instructional Design is indicated by the word 'Design' itself. Design has been claimed as a science by itself. (van Patten, 1989). In layman's language, 'Instructional Design means the plan of action with a purpose'. For our understanding in this section we will describe instructional design as a separate entity, which is separate from Instructional Science and Technology. Instructional Design is a discipline of study and has evolved over the last forty years as a science. It is a young profession deriving its inspiration and contents from areas of communication, psychology, media etc. to form its own theory. Various authors have defined instructional design in their own way. Instructional Design simply means using a systematic process to understand a human performance problem, figuring out what to do about it and then doing something about it (McArdle, 1991). Instructional Design is the science of creating detailed specifications for the development, evaluation and maintenance of situations which facilitate the learning (Richey, 1986). Instructional Design is the entire process of analysis of learning needs and goals and the development of a delivery system to meet the needs (Briggs, 1977). In simple words, instructional design is a pedagogic or teaching device that makes instruction as well as the instructional material more engaging, effective and efficient. The statement .whereas physicians engineer health, architects engineer space, instructional designers engineer human performance. (van Patten, 1989) focuses on the importance of instructional design. Learning theories have significant bearing on instructional design, as there is a logical development from learning to instruction. Instructional design optimizes learning outcomes while learning theories are the backbone of any instructional design. Instructional design is the articulation or the manifestation of the learning theories, and its main aim is to optimize learning by using the known theories of learning. Strain (1994) states that a wide divergence of views exists among the researchers in instructional design regarding the relative contribution of various schools of psychology and claims that instructional design has grown out of the systems approach with its roots firmly in behaviorists psychology that has dominated instructional design since the 1960s. However, Hannafin and Reiber (1989) point out that instructional design developed in the 1980s by Gagne, Merrill, Reigeluth and Scandura is largely due to the influence of cognitive theories of learning. Of course the emphasis has been on how information is retrieved, selected, processed and perceived. More recent developments are due to Constructivist learning theories. Instructional designers no longer depend on any one theory. They draw upon and incorporate from different learning theories, mix those with other information and apply the results to meet human needs (van Patten, 1989).

Now that we have looked at the meaning of instructional designs in order to understand the importance of instructional designs in ODL we need to re look at the advantages of ODL and this will give us an understanding to relate how instructional designs really meet all the advantages of ODL.

Advantages of Open and Distance Learning

Open and distance learning offers a number of advantages to both learners and to providers of opportunities for learning. Problems such as distance and time, which are barriers to conventional learning, are overcome in open and distance learning.

Overcoming physical distance

Open and distance learning can overcome problems of physical distance for:

- learners in remote locations who are unable or unwilling to physically attend a campus; and learners and teachers geographically separated in that teachers in urban settings instruct learners in rural settings.

Solving time or scheduling problems

Open and distance learning can solve time or scheduling for:

- client groups unwilling or unable to assemble together frequently;
- learners engaged in full-time or part-time work, both waged and volunteer; and
- family and community commitments.

Expanding the limited number of places available

Open and distance learning can expand the limited number of places available for:

- campus-based institutions few in number; and
- stringent entrance requirements.

Accommodating low or dispersed enrolments

Open and distance learning can accommodate:

- low enrolments over a long period of time; and
- low enrolments in one geographic region but additional enrolments elsewhere.

Making best use of the limited number of teachers available

Open and distance learning can make the best use of the few teachers available when:

- there is a lack of trained teaching personnel relative to demand;
- teachers are geographically concentrated; and
- teachers with certain expertise are in short supply.

Dealing with cultural, religious and political considerations

Open and distance learning can deal with differences, and consequently:

- widens women's opportunities to learn;
- meets the needs of populations affected by violence, war or displacement; and
- makes learning possible even when group assemblies are prescribed.

On looking at the various advantages one sees that therefore there is a need for an instructional system using an instructional design that has a systemic view of ODL.

Check Your progress :

Q.1 What is Instructional design? How it is related to Instructional science?

6.3. ANALYSING SYSTEMS REQUIREMENT:A SYSTEMS APPROACH TO OPEN AND DISTANCE LEARNING

A systems approach sets the conditions for proceeding in an orderly way. A systems approach also recognises that all the components of the system are interrelated. A change in one component will bring about changes in the others.

Open and distance learning programmes, units and institutions use a phased model for problem solving:

analyse , design , develop , implement ,evaluate , revise

Analysis: a detailed examination of all facets of the problem

- What is the problem to be solved?
- Is the problem an instructional problem or an environmental problem?
- Who has the problem?
- What are the resources available to solve the problem?
- What are the constraints or limitations to be faced?

Output from the analysis phase:

- a clear statement of the problem
- a detailed description of the target population
- identification of the resources and constraints

Design: requires the preparation of a detailed solution

- Who are the target population and other stakeholders?
- What will the solution accomplish?
- How will the participants be different after the course or programme?
- How will the participants achieve the objectives?
- How will the course or programme be developed?
- How will you know your solution is effective?

Output from the design phase:

- a detailed plan that describes how, when, by whom and at what cost the problem will be solved

Development: must address the following kinds of questions

- What strategies, media and methods will be used for each objective or task?
- What learning resources will be required?
- Where, when and how will learners be ensured of feedback as they practise their skills?
- Where, how and when will evaluation activities be used?
- What will be the consequences of success or failure or both?
- How will the instruction be evaluated and revised?

Output from the development phase:

- a complete course or programme package, including all materials, tools, equipment and plans for delivery, learner support, learner evaluation and course evaluations

Implementation: putting the solution into practice

- Are all necessary resources (human, physical, financial) in place?
- Are data collection mechanisms in place?
- Are problem-solving and recording mechanisms in place?

Output from the implementation phase:

- learner progress and performance records
- data from a variety of sources (for example, records and solutions)
- other evaluation data (for example, interviews, questionnaires)

Evaluation: not an 'add-on' but an integral component

- How well does the system meet the goals initially identified?
- How well does it meet the needs of the learners and other stakeholders?
- Do you have sufficient specific information? How will you obtain it?
- What specific changes can be made to improve the system?

Output from the evaluation phase:

- analyses of records and data
- specific solutions, including time, cost and other resource estimates

Revision: including a review of all decisions and activities of previous phases

- Were the original analyses complete and correct?
- Have circumstances changed sufficiently to require a major review of the analyses?
- What changes, modifications or improvements are evident in the evaluation data?
- Are sufficient resources available to complete the recommended changes?
- What action needs to be taken?

Output from the revision phase:

- revised course or programme, including the course materials, learner support and evaluation plan, and a revised course evaluation plan

6.4. DESIGNING THE SYSTEM

All instructional designers agree on the need for effective planning of the design and development process. The success of this process largely depends on the preparation of a document, often called a plan or a blueprint, with essential elements such as clear indications of what will be done, who will do it and by when. These are added to the general description, which has the usual study elements of content, assessment and time schedules. The following outline provides brief descriptions of the parts of a typical plan. Note that for the plan to be of most use, it should be treated as a working document that is regularly updated as changes occur in the development and production phases.

INTRODUCTION

This should provide a brief overview of what is in the plan, along with any necessary background information.

THE STAFF

This section should list those involved and answer the following key questions:

- Who will be developing and teaching the course?
- What support staff would be involved?
- What will the respective roles of the team members be?
- Who will be the projects coordinator?

THE STUDENTS

This question needs to be carefully considered and should address the following:

- Who will be studying the course?
- What are their expected backgrounds and learning needs?
- What learning experiences will they bring to their study?
- What support and preparation in adapting to flexible learning will they require?

SUBJECT DESCRIPTION

This section should first outline any necessary institutional requirements, like the subject title, points value, level and prerequisites.

The subject's relation to the rest of the course should be explained.

Subject content and the approach should be briefly outlined. This information will often be readily available in existing course approval documents.

AIMS AND OBJECTIVES

The aims are the overall goals for student learning. The objectives are more specific, setting out what learners should be able to do, understand and value after completing their study. Well-designed objectives can provide a basis for later construction of assessment items. This section can also include an outline of ways in which individual aims and objectives, set by the learners themselves, will be met. Note that the term .learning outcomes. will sometimes be used rather than .objectives.. Though there are differences (Kandlbinder, 1997), they are often used interchangeably.

CONTENT OUTLINE

This shows what the students are expected to learn in order to meet the aims and objectives. The content outline can be a list of specific main topics and sub-topics, which for a modularised course can be presented under the module headings. It can also be a diagram illustrating the relationship between major concepts.

THE LEARNING ENVIRONMENT

This vital component determines what teaching and learning methods will be employed for students to achieve the objectives. The learning environment determines how the students are going to learn the content. By addressing this challenge, development teams can move well beyond simply presenting content and devising tests to check students understanding. Consideration can be given to the overall approach, focusing on the learning activities or the process rather than the content. Examples of ways the learning environment can be constructed include problem-based learning, case study approaches, clinical teaching, experiential learning, videoconferencing and computer-based learning. A useful device in designing the learning environment is to construct an organisational outline that shows the essential components of the subject, along with how they fit together. As well as describing the learning resources (online elements, multi media resources, print based materials or lectures), it should clearly indicate the relationship between the key components. This can be done as a table, which lists the learning resources and shows the amount of time that learners are expected to spend with each resource during their study. Its value lies in its ability to show the expected total study time of the learners, and to identify areas where learning demands might exceed available time.

INTERACTION AND ACTIVITIES

This section indicates how students will interact with academic staff and with each other, and describes the learning activities. For example, the kind of expected interaction during tutorials will be explained along with whether the students are to use the online facility for information or communication purposes, searching for web resources, or working with multi media learning material. Any proposed use of group-based learning should also be included.

ASSESSMENT

This provides an indication of the overall assessment structure, including the balance between assessment items and a description of the nature of the items (examinations, essays, reports, investigations or problems). The mode of submission of assessment items, whether electronic or hard copy, will be detailed. Time lines and policy on late submission can be included. Note that clear indication must be given as to how the assessment meets the objectives.

LEARNING MATERIALS

This section should identify all materials students need to complete the course, such as texts, readings, audio visual and multi media elements, and should include which of them the learners will need to purchase.

STUDENT REQUIREMENTS

It is important to clearly indicate anything particular that students might need to study effectively, such as Internet access. Listing specific requirements is specifically important for technology related learning.

LEARNER SUPPORT

Learner support elements such as tutorials, library, information technology, administration, learner-teacher contact or learner-learner contact, should be clearly outlined.

DEVELOPMENT SCHEDULE

The schedule is usually a table which lists the major components of the course, indicating when and by whom the components will be developed. For large and complex development projects, the use of project management software can prove very beneficial.

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Learner support elements such as tutorials, library, information technology, administration, learner-teacher contact or learner-learner contact, should be clearly outlined.

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EVALUATION

Overall evaluation strategies should include the formative evaluation that will take place during the development phase. This can be peer evaluation, trials or other approaches designed to ensure that potential problems are addressed well before the course is offered. Plans for summative evaluation, which will take place as the first students experience the learning environment, should also be outlined. Such evaluation, which normally includes both teachers and learners, is through interviews, focus group discussions and questionnaires.

Check your progress-II

Q.1 Write short notes on :

a) Assessment

b) Evaluation

c) Learner support

d) Content outline

6.5. EVALUATING SYSTEM EFFECTIVENESS

Evaluation is testing of curriculum transaction in ODL fulfils the objectives set, and suggesting improvements it requires to make the programme useful for its target audience. Evaluation is not a uniform process and evaluation cannot be identical for all programmes. Evaluation invariably will have to be made of the objectives that the ODL program. For our purpose, we may say, evaluation will involve testing of the content it transacts vis-à-vis the target learners, keeping in view the prime objective of the expected learning which may take place in the learners after they go through the programme.

At the broadest level, evaluation of a system should be done at two levels: at the level of content and at the level of technology or the instructional media employed. Technology plays the role of only the means to attain the identified objectives. Optimal use of technology is desirable and in evaluating ODL it needs to be kept in mind that the technology itself should not become too cumbersome for the users, because the competence level of individuals using technology varies a lot.

Computers today can provide unlimited facilities for search, navigation, print etc. but it is dangerous to employ all the facilities without proper understanding and navigating skills because the learners may have to spend more or most of the time learning about these. Ease of use of the technology and its optimal use should be paramount on the developers' mind. Developers should refrain from using all that they know or have ever used and should primarily focus on the feasible and practical aspects from the points of view of the course objectives and the learner competence in using the technology.

6.5.1. LEARNER CHARACTERISTICS IN ODL

According to Brookfield (1986), adult learners have the following nine characteristics.

- Adults maintain the ability to learn.
- Adults are a highly diversified group of individuals with widely differing preferences, needs, backgrounds, and skills.
- Adults experience a gradual decline in physical and sensory capabilities.
- The learner’s experience is a major resource in learning situations.

- Self-concept moves from dependence to independence as individuals grow in responsibilities, experience, and confidence.
- Adults tend to be life-centred in their orientation to learning.
- Adults are motivated to learn by a variety of factors.
- Active learner participation in the learning process contributes to learning.
- A comfortable, supportive environment is a key to successful learning.

It is important to realise that adults' past experiences of learning may act against them as well as acting in their favour. For many adult learners, their previous education was marked by lack of success, exclusion, and frustration. Therefore coming back to studying as an adult can be a daunting task. In addition, as adults, learners generally have more commitments than do children, and the place studying takes in their lives is therefore quite different. This can be a positive factor, in that it enables some adult learners to keep the stresses of studying in better perspective; or a negative factor, in that studying must compete with essential life maintenance activities such as keeping a family, growing food, holding down a job, and finding enough money to get by on.

Understanding Learning and Learner for Evaluating the Systems Effectiveness in ODL

Every learner has his/her own way of learning; pace varies, timing varies and so do various other habits. Computers have provided us the facility to adapt these facilities according to one's own needs and liking. A major quality of ODL is interaction, which the machine performs with the learners. So, while designing ODL software it has to be paramount on our minds that the learner should be able to interact with the programme and make it suitable to his/her requirements and liking. A major tenet of ODL education is the acceptance of the fact that no single method or medium is appropriate and perfect for all individuals. Every individual has his/her own preferred methods of information reception and processing. The ideal condition would be to provide numerous options to learners. However, if numerous options cannot be made available, a number of alternative instructional options based on various learning approaches must be given. This is what an ODL programme offers.

In this chapter, we shall use the term to mean all devices and materials used in the teaching and learning processes. This definition is close to a broader definition such as that of

6.5.2. Instructional Media in ODL

Romiszowski (1981: 339) which includes not only electronic communications media, but also such devices as slides, photographs, teacher-made diagrams, charts, real objects and handouts that we use in the process of planned instruction. Figure 6.1 gives examples of some instructional media.

Print

Pamphlets, handouts, study guides, manuals

Visual

Charts, real objects, photographs, transparencies

Audiovisual

Slides, tapes, films, filmstrips, television, video, multimedia

Static/display

Chalkboard, feltboard, display easels, flip charts, cloth board, magnetic board

Electronic

Radio, computers, electronic mail, CD-ROM, multimedia

According to Percival and Ellington (1988), you should evaluate your instructional media at the completion of production and during its use. At the production stage, you should determine whether:

The materials meet your original objectives;

- content and technical aspects meet the expected standards;
- the material is of suitable length, and information flow is smooth;
- there are any gaps, errors, inaccuracies;
- the particular medium will integrate with other media.

When evaluating media, you should seek information from students, former students, colleagues, administrators and technicians. For your evaluation instruments, you can use formal and informal interviews or questionnaires. Chapter 2 presents an overview on assessment methods; see particularly. - Kemp and Dayton (1985:67) suggest that you should design questions that will give you helpful answers.

For instance:

- How well do students accomplish the objectives upon which the media are based?
- Do reactions indicate the medium appeals to the class or to individual students?
- If the media do not meet the objectives or if they lack appeal, what revision can be made?
- Are the arrangements for use of the media convenient for you and the students?

- Was any difficulty encountered in using the hardware?
- What were the development costs of the media (professional and staff time, materials, services)?
- What are the operational costs (staff time, materials, facilities)?

On the basis of your answers to these questions, you should revise the instructional media and/or the way you use them. It is advisable to repeat the evaluation periodically to maintain a standard of effectiveness.

6.5.3. Types of Evaluation: Continuous and Terminal

There are certain decisions, which need to be taken before starting the process of software development. These decisions guide the process of software development. In fact these decisions become the guiding principles and the software developers have to keep asking the questions, if they are fulfilling the objectives decided upon in the planning process. Once the prototype of the software is ready, it is tested and once again the objectives can be re-examined and reformulated on the basis of feedback and evaluation. Evaluation is basically of two types: Continuous and terminal. We shall discuss them below:

Continuous Evaluation

Continuous evaluation is done as a continuous process in the development of ODl and even before the development process actually starts. Decisions taken at the beginning of the process of software development affect various aspects of the software. Answers to questions like who, why, where, and how become the guidelines for the development of the software. Depending upon the time and resources, both quantitative and qualitative methods of feedback are utilized in continuous evaluation. No instructional system can fulfil all requirements of all learners. In fact, if a single programme can provide all the information, and answer all queries on a single topic, it should be considered successful. So, every software developer must decide and delimit the scope of the software beforehand. In other words, we have to spell out the objectives of the programme. Some questions like the following ones need to be answered because these will affect the content and the selection of technology.

(i) Who are the target users of this software and what the level of the target is users?

(ii) What is the level of computer familiarity expected of the learners?

(iii) What would be the objective (in terms of content) to be covered by the Instructional system?

(iv) How will the programme be used?

a. as supplementary to classroom teaching?

b. as independent programme providing complete courseware?

Once decisions on the above are made, the cognitive aspects of learning are to be considered. The socio-cultural background of the target users will affect content selection and treatment of the topic. In arranging the content, the learning habits of the users would influence the decision about sequencing of information, quality of information (through various media) provided through every screen, and supplementary information to be provided through links.

It is often mentioned that no programme should aspire to be complete or self sufficient, but it should lead the users to relevant information. The software developer should provide relevant links and the content expert should word the text and place other relevant media material in a manner that they raise more inquisitiveness in the learners and they go for further search and self study.

Terminal Evaluation

After the completion of the development of the programme, the software is released for use. The actual users, then, make suggestions and these suggestions form the basis of summative evaluation. Summative evaluation is the end of the system evaluation. Some programmes involve a number of teams to develop various components of larger software, which finally integrate into the end product. While working with Microsoft Office you must have used the numerous facilities it offers. For example if you click on the Accessories it provides Calculator, Games, etc. These must have been developed by different groups separately and then finally joined to make a final product. Summative evaluation, as mentioned earlier, should be conducted for each of the components and also for the final product. As summative evaluation is targeted at the end-users, in educational software a major focus of study is the software's pedagogic effectiveness . The teaching learning objectives identified during the needs analysis become the base of summative evaluation of academic software. Evaluation should keep the educational, entertainment, ease of use or design features in mind while conducting summative evaluation of these and then overall impact on learning. Suggestions on the basis of summative evaluation may be for (i) short-term and (ii) long-term changes in the programme. Short-term changes may be based on your own observations and the feedback from the users and the long-term changes may be made on the basis of the decisions of the curricular design and on the basis of suggestions given by the development agencies and the organisations using your software, if it is being used outside your institution.

6.6 LET US SUM UP

In this unit we discussed the following so as to explain the role of instructional design in curriculum transaction in ODL.

Instructional design is the plan of action with a purpose. Learning theories are the backbone of any instructional design. It needs planning & evaluation. Instruction design is prepared on the basis of learner

characteristics. Instructional media are also fixed on the basis of the learner's characteristics. Evaluation is necessary to evaluate the effectiveness of the design planned. It should be evaluated continuously and at the end also.

6.7 UNIT END EXERCISES:

1. Describe the importance of instructional designs in ODL.
2. Explain the need for instructional designs in ODL with respect to the advantages of ODL.
3. Discuss with the help of examples the steps for analyzing systems requirements.
4. Describe the help of an example the steps for designing an instructional system.
5. State the different types of evaluation; critically evaluate each type of evaluation.
6. "Evaluation of systems effectiveness should be based on Learner characteristics and instructional media" Discuss.

General Resources And Links

www-icdl.open.ac.uk: The International Centre for Distance Learning (ICDL), an international centre for research, teaching, consultancy, information and publishing activities based at the Open University in the UK.

www/cisnet.com/~cattales/Deducation.html: The World Wide Web Virtual Library.s list of resources on distance education.

www.gwu.edu/~etl/programs.html: Lists of links on distance education.

ccism.pc.athabascau.ca/html/ccism/deresrce/de.htm: Resources in distance education from Athabasca University.

www.distance-educator.com/portals/o4designers.html: The designers. section of a US-based web site dedicated to distance education.

www.usqonline.com.au: The University of Southern Queensland has a number of online courses, and its demonstration course is closely related to many of the issues in this article. Click on the .Demo Subject. button and follow the instructions. The procedure is slightly tedious, but it.s worth the effort!

www.bookstoread.com/e/et/top10id.htm: This site provides the top ten books on instructional design, as chosen by a number of leaders in the field such as Bela

Banathy and Michael Hannafin. Those who know his work will be surprised by some of the books on David Merrill.s list!

www.col.org/irc: The Commonwealth of Learning Information Resource Centre at the COL web site.

ONLINE ARTICLES AND JOURNALS

www.futureu.com/cmscomp/cms_comp.html:Comparative Features Analysis of Leading Course Management Software., an article for those contemplating using existing software as a platform for an online distance education course.

www.seas.gwu.edu/~sbraxton/ISD/isd_homepage.html: .Instructional Design Methodologies and Techniques. from The George Washington University in Washington, D.C.

www.atl.ualberta.ca/articles/idesign/activel.cfm: .The Web: Design for Active Learning. from the University of Alberta.

www.irrodl.org: Online journal, *International Review of Research in Open and Distance Learning*, from Athabasca University.

www.slis.indiana.edu/CSI/wp00-01.html: The other side: an article on the frustrations experienced by a group of distance learners

7

ENHANCING CURRICULAR TRANSACTIONS

Unit Structure:

7.0 OBJECTIVES :

In this unit, we have discussed what is the study skills. How it is useful in SLM. After working through this unit, you should be able to :

1. Define structure of SLM in a broader sense
2. Use of SLM
3. Study skills in SLM
4. Significance of Study skills

5. Reading
6. Counselling and tutoring
7. Feedback Mechanism and Assignment

7.1 INTRODUCTION :

Curriculum transaction is based on multivarious dimensions which have direct or indirect effect on improving the quality of the teaching learning process. In the present scenario, various strategies and mostly ICT initiatives have been taken up for classroom processes and achievement of children. In an effective transaction of curriculum, major key indicators relate to : Existing curriculum and its coverage, curriculum revision and exercises, competency based materials, availability of text books to children, text book production and distribution, availability of teaching learning materials and its use, classroom organization (sitting arrangements and classroom settings), grouping of classroom (PTR), methods of introducing the topic, teaching learning processes (pedagogy), students initiatives in teaching learning process, assessment procedure and frequency of assessment tools used for monitoring and evaluation.

In order to transact any curriculum one should read to learn about the learners, their age, their previous training or education, the things they already know, the things they were interested in and the things that were important to them, their personal goals and problems. Generally learners come to class with a background of knowledge and experience. A good curriculum uses that prior knowledge as the foundation for new learning. The curriculum introduces new ideas generally and encourages the learners to use whet they already know and to make sense of the new ideas.

To enhance / enriching curriculum means –

(1) Connecting to real life experiences, relevance to the life outside the school. This will make learning more meaningful.

(2) Learning should be shifted away from rote methods, encourage learning through practices, problem solving, creative thinking and critical thinking.

(3) Curriculum should enriched through overall development of children rather than focusing on receiving of information from text books.

(4) Flexibility and variety need to be built into all the programmes. Evaluation should be made more flexible and integrated into classroom life.

(5) Child centredness, curriculum should be account of individual differences, interests and abilities of the learners. It should be need based and child centred.

(6) Curriculum should give sufficient scope for correlation and integration of different subject.

(7) It should be relevant, utilitarian and learnable experiences should be imparted through curriculum.

(8) Curriculum should be activity oriented, well graded, sequentially structured with educational experiences.

7.2 EMBEDING STUDY SKILL IN SLM :

7.2.1 Structure :

The self learning material is to tackle the subject related difficulties faced by you, so that you may not have to face any problem, while teaching in the class. Although these hard facts have been identified by the teachers themselves, it may be possible that you might have faced during teaching the subject may not have been included in this material. SLM is an important component of distance education. Each unit begins with an introduction. The objectives tell us about the knowledge that we shall acquire after the study of the unit and what effective changes would be there in the learning process. After every section and subsection, "self check exercises" including provision for answering the questions in the units are given where in questions have been asked about the text of the unit. One should expect to go ahead only after attempting the small exercises. Appropriate margin or space has been provided in each page for writing notes. One may use it, so that knowledge or skills are enhanced.

Efforts have been made to provide appropriate pictures, diagrams etc in the booklet so that one may be able to teach the students effectively. At the end of each unit, summary of the unit has been included in the form of main points under the title 'we have learnt' and after that exercises and answers to "self check exercises" are given. One should expect to check the answers only after writing the answers of these questions.

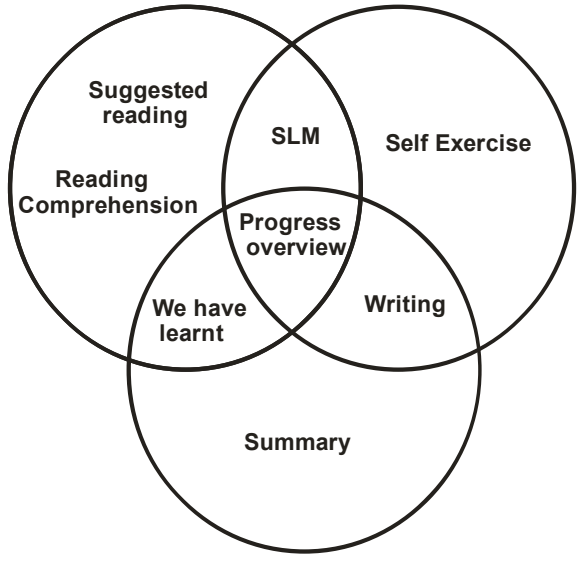


Diagram 1 : Study skills in SLM

These questions are meant not only to check your progress but also to increase the utility and effectiveness of the study material.

7.2.2 Study Skills in SLM :

Depending upon various needs, different thinkers give different labels or definitions to the term study skill. The labels commonly associated with study skills are : a tool kit, the best ways of acquiring knowledge, a set of organization skills, micro skills and systematic study habits and so on. For some study skills, strategies are to be developed by a learner to derive the greatest possible benefits from activities like listening, speaking, reading and writing. For other study skills are "advanced skills" which are not purely mechanical but essentially involved some amount of creative thinking. These skills acquire active mental exercise on the part of the learner. The essential skills that a learner requires in order to gain maximum benefits from his / her studies. Study skills are the skills on strategies that a learner employs to study and come to grip with the study materials independently and efficiently. It is however difficult to categorically specify all the skills that a learner uses either to get across his / her message or to decode some one's message.

The term 'Study' refers to –

- Follow a course of lectures and taking notes.
- Being acquainted with and being taught all that is necessary to know about the subject.
- Cramming chunks out of or the whole of subject matter.
- The dedicating and systematic pursuit of understanding and dedicating one's thoughts and energies to learning study involves in setting up goals and choosing methods, solving problems, performing experiments, going through tests, collecting information, segregating facts from opinions or suggestions, comparing facts, weighing up opinions and considering suggestions and finally looking for proof and truth. 'Study' thus demands you to analyze and criticize not only your own ideas but also those of other people – whether you hear them in lectures or discussions or read them on books. You will have to further make brief but efficient notes and summarizes to help yourself remember what you have read and to clarify your thinking.

Study Skills and Distance Teaching / Learning :

It should be highlighted here how essential study skills are for a system in which teachers and learners are at a distance for most of the teaching learning process. The means used in distance education to improve the study skills of distance learners. Study strategies play a vital role in distance education. The learner being away from the teacher and the Institution, depends mainly upon his / her course materials for her / his studies. If he / she has not developed proper study skills to tackle the text she / he is certainly at a disadvantage. A distance learner's study depends

also on audio – video material. Again how efficiently he / she deduces meaning out of them primarily depends on how well one develop study strategies.

7.2.3 Significance of Study Skills :

Learners should be helped to acquire good study strategies as early as possible certainly before they develop either poor study habits or wrong concepts concerning studying. Teaching study skills would help the learners spend less time in studying and learn more. Studying requires a certain amount of tension, concentration and in a specific direction. Of course, the amount of tension varies with different individuals. Three vital concerns in building good study habits. These are when to study?, where to study? How much time to spend on study?

When to Study?

Some learners study only just before the terminal examination or an announced test. Some may even study the whole night and cram answers. All of use have probably done this at least once or twice. Rote learning, however does not bring about any real learning.

A good learner must plan one's study time and spread over a period of time. Of course the ability to study and more so, the ability to plan our studies is not something we are born with. It is a set of skills that must be learned. Teaching the learners to plan their study is therefore a major responsibility of the teacher. Learners should be made to realize that regular planning would prevent confusion and help them to retain and organize what they are studying.

In a class room situation, for example, the learner may be advised to study each subject as close as possible to the class, period for the subject before or after the class period. This chiefly depends on the form that, class period usually takes. That is, if it is a straight forward informational lecture a study session right after the lecture will be useful to review notes and check whether it has been understood. A study session just before a seminar / discussion gives learners a chance to read upon the background information that will help them make an effective contribution in the classroom.

Where to Study?

Ideally you should be able to study any where in a quiet library or on a crowded bus or train. But let us be realistic. Most of us can not entirely shut off our minds to distractions. By implication, the place of study, should be as free as possible from such surroundings as might steal away the attention of the learner. As for the conditions for study, the place should be well lit and properly ventilated and neither too hot or too cold. We should also mention here that it can be difficult to get every thing the learner wants, for example, if staying in a hostel or some one else's house he / she can not find everything at his / her own choice.

Now our physical postures have something to do with our study. The best position for study is to sit upright at a table or desk. Bed of course may be attractive and enticing but once you lie down, the ensuring sleep is inevitable. Even an easy chair may prevent you from effective effort.

How much time to spend on study?

The third step is to determine the amount of time to spend in studying. It must be recognized that the amount of time the learners spend in studying will depend on the subject and how well they know it. It is therefore, unrealistic to set a hard and first rule about the amount of time learners should spend on a specific subject. It varies, yet (over learning happens when individuals continue practicing activities, exercises, etc. even after they think that they have learned them.)

7.2.4 Concept Mapping :

When learners study they can make a chart like graphic representation of the material they are studying or have studied. This chart is the 'concept map' representing what they have studied preparing a good concept / semantic map requires that learners be good critical thinkers because they must make insightful judgements on what format, words and phrases best represent the information which they have gone through and what will help them to recall the information whenever they need it. "Concept mapping" have evolved as a useful strategy for leading students towards meaningful learning. "Ausubel suggests that when meaningful learning occurs, it produces a series of changes within our entire cognitive structure, modifying existing concepts and forming new linkages between concepts.

Hence learner could use –

i) Choose and determine the amount of information for studying.

ii) Read through the whole material that has been choosen for studying.

iii) Locate the central idea / theme of what is being read.

iv) Re-read each paragraph. This will enable them to identify the main topic (of each paragraph).

v) Note down the central idea and the topics of the paragraphs studied in an easily accessible format. This is concept map.

The correct way of construction of 'Concept Map' are outlining, note taking / marking and summarizing.

Outlining : It helps learners to organize long, written compositions, assignments, responses etc. An outline also is useful for study purpose because it serves as a guide for the logical arrangement of the material. The learner should be therefore, taught 'outlining.' The teachers can give activities asking the learners to identify and write the main topic and sub topics of given paragraph.

Note making : It is a study skill which helps the learners to learn better. The teacher should therefore convey important information about note taking to the learners and give them practice in taking notes. Notes usually consists of words and phrases that help one remember important points. They need not be complete sentences. Notes can be taken while listening to a lecture, reading a text, watching a video programme, participating in a discussion or even while thinking on a subject / issue.

Summarizing : Summarizing learning materials is a mode of learning that helps one to retain the most important concepts and facts in a unit / lesson / long passage. It forces learners to think about what they have read and to identify and organize the essential information.

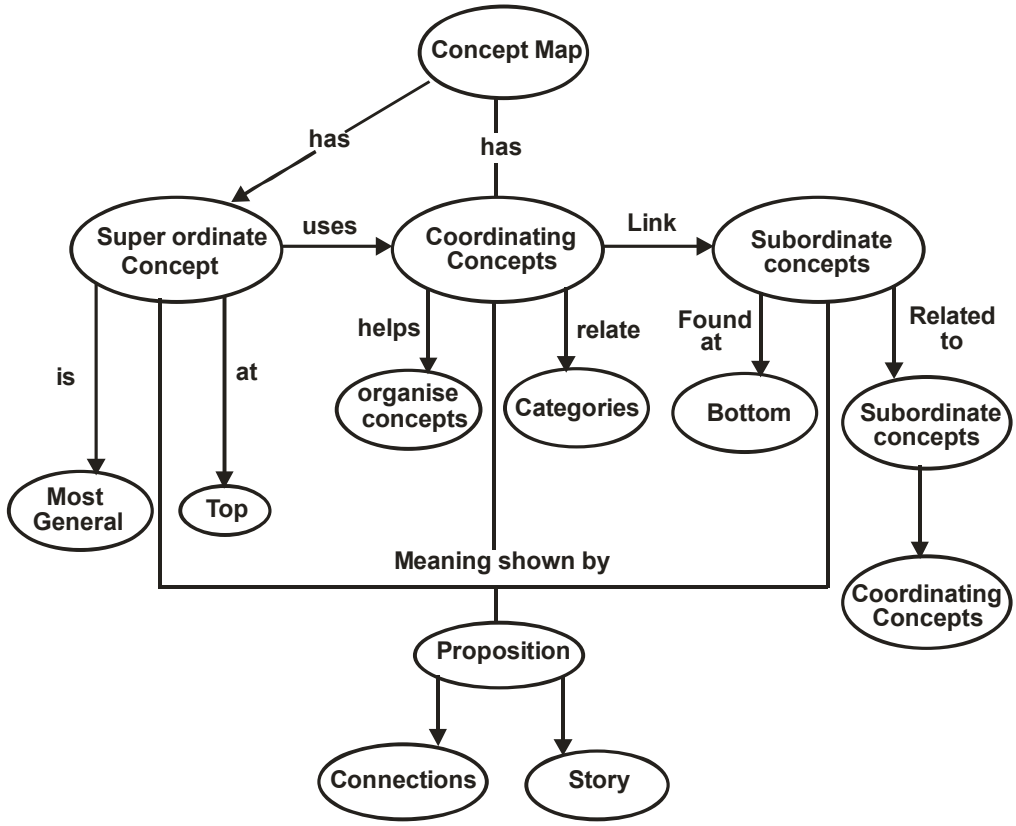


Diagram 2 : Concept map for Concept maps

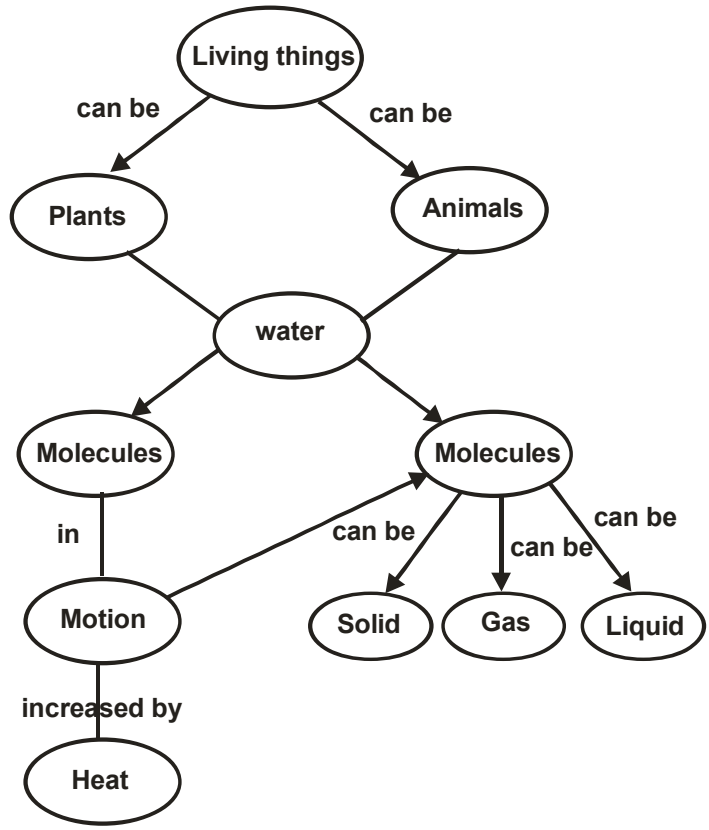


Diagram 3 : Example of a Concept map

The distance learners develop many study skills such as : determining word meanings from the context, finding main ideas, drawing inferences, drawing conclusions, making generalizations, recognizing cause and effect relations recognizing analogies, categorizing and concept maping distinguish between facts and opinions, finding inconsistencies and detecting propaganda and bias.

7.2.5 Reading, Skills and Comprehension :

The study skills generally associated with the sub skills of reading and writing. Reading is a total integrative process that includes the following three domains of learning.

i) the cognitive

ii) the perceptual and

iii) the affective

The Cognitive domain : A reader constantly interacts with a text to get the message of the writer, we imply that reading is an act of thinking. Learners who have difficulty in working at different levels of cognition will have difficulty in comprehending what they are reading. They can not involve themselves in selecting, transferring, organizing and remembering information. Readers have to, relate what they are reading to their past experiences, interpret information, infer meanings from it, ignore some information and attend to some other information.

The cognitive domain, thus, include all the comprehension skills. Teachers can help learners in developing thinking skills by helping them acquire necessary strategies and by giving them practice in using these strategies.

The perceptual domain : The term 'perception' can be defined as giving meaning to sensations or the ability to organize stimuli on a particular area. Our background, experiences and our sensory preceptors organize our stimuli. Visual perception is most important factor as eye movements influence and control what the reader perceives.

Generally, depending on how a learner perceives a word as a whole or individual letters she / he will be called either a good or bad reader. Sensory preceptors, the perceptual process is also influenced by effective factors. If the reader, for example, is biased towards a topic she / he deletes, adds to or distorts what is being read.

The process of decoding the written words and interacting with the text depends mainly upon the factors –

i) Motivation the attitudinal factor, the need to identify the unknown part or parts of particular text / word.

ii) Attention – as a powerful selector or stimulus

iii) Grouping of stimuli – recognizable syllabus and other patterns for making optimum use of a limited span of attention.

iv) Contrast – the contrastive letter patterns that present contrastive sound patterns and

v) Feedback – a cyclic process ranging from the examination of letter grouping of the written word to the sounds of the spoken word, for example, the application of the skills of word perception to the written word during silent reading.

The affective domain : This domain includes our feelings emotions and attitudes. The perceptual process is influenced by affective factors.

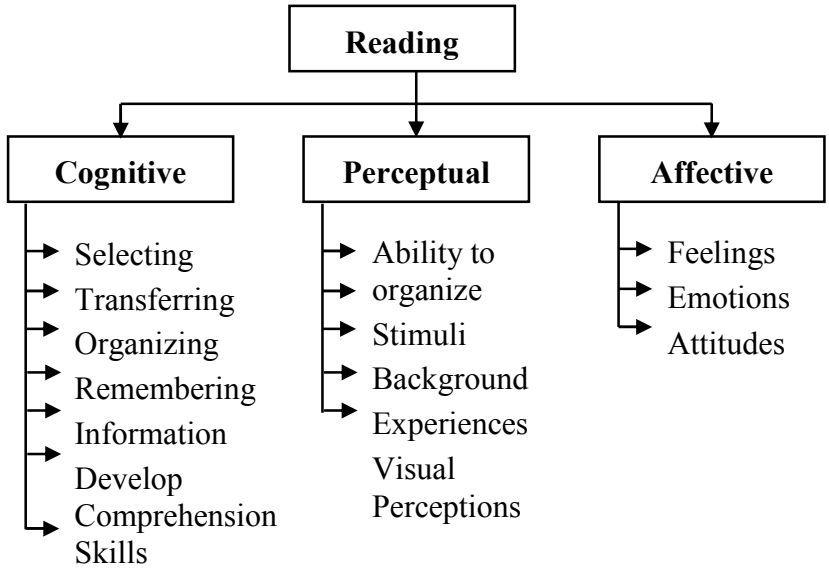


Diagram 4 : Reading includes the 3 domain

Reading comprehension, according to Barrett's taxonomy as a model, passes through in the process of reading, from lower to higher education. These are as follows :

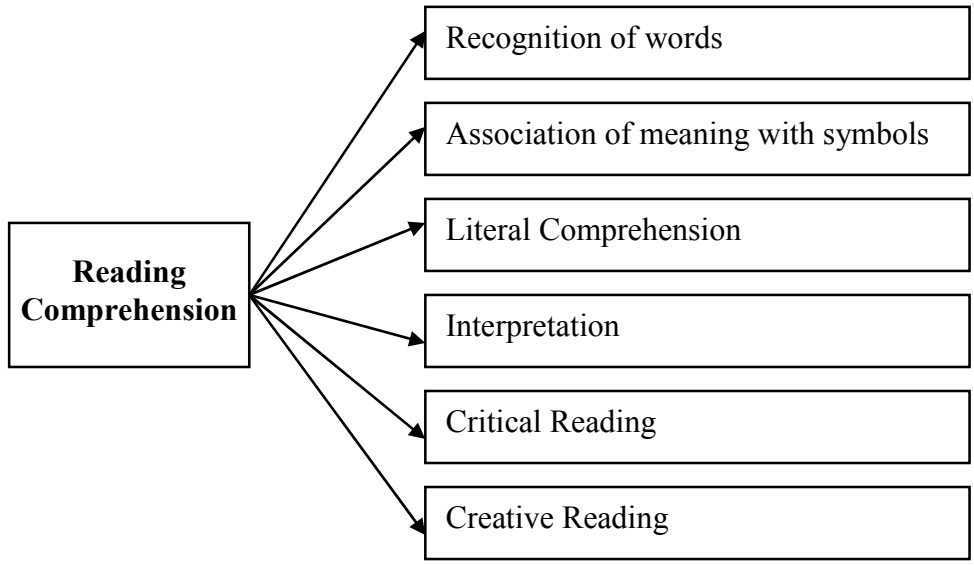


Diagram 5 : Stages of Reading

The above diagram shows that no reading can takes place without word recognition, majority of learners will have mastered the skill of word recognition by the time they come to higher education. The words should be read, understood and learned. Literal comprehension involves some important sub skills reading for facts and central ideas. Reading requires she / he learns to understand implied meaning.

Reading skills involves SQ 3R Technique :

SQ 3R stands for the initial letters at the five steps that should be taken in studying a text.

i) Survey

ii) Question

iii) Read

iv) Recall

v) Review

Survey refers – to a quick glance through the title page, preface, chapter leadings etc. of a text which includes –

i) the general subject area

ii) the author's name

iii) the level of approach and the data and place of publication.

Question : One can ask herself / himself :

- How far can I depend on this book?
- Will the book be helpful to me as its preface suggests?
- Why should be author devote a whole chapter to this or that topic?

Read : Reading text material demands a critical mind when we read a text we apply our minds with all their critical skills. Unless we read actively the questions which have been formulated can never be answered.

Recall : Regular attempts to recall will help to improve your learning in three ways – help improve concentration, give you a chance to remedy misinterpretation(s) and develop critical reading.

Review : The purpose of reviewing is to check the validating of our recall. The best way to do this is to do a quick repeat of the other four steps – Survey, questions, read and recall.

Reading is a secondary linguistic skill which needs some forms of explicit instruction and is different from the primary linguistic act of speech which is more natural. It involves "Inter pretation of signs and arbitrary symbols deliberately created and used for the purpose of communication. Several studies have shown that reading ability and visual perceptions are closely interrelated.

Comprehension is a multi dimensional skill involving linguistic, perceptual, cognitive and motivational components. Understanding the meaning of the printed page or the comprehension of the text is a higher order process that involves a number of skills. Reading comprehension is a complex skill that involves attaching meaning to the visual symbol and understanding the message communicated by the combination of symbols presented in the paragraph. It requires certain level of language and understanding skills because of higher order operation of abstracting and reasoning. The process of comprehension occurs only when the reader is able to eliminate some or all the alternate meanings conveyed by the visual information. Mature readers typically engage themselves in comprehension, monitoring. Since Comprehension is an intentional action, it may be that improving student's awareness of comprehension will improve their comprehension of the text.

Check your progress :

Q.1 Why the Self Learning Material is important in Distance and Open Learning System?

Q.2 Write in brief the significance of study skills?

Q.3 What is Concept Mapping?

Q.4 How Reading Skill and Comprehension is affecting the study skill?

7.3 COUNSELLING AND TUTORING :

A good teacher is always a good counselor, because counselling is part of all successful teaching methods.

Teaching : Ultimately course centred, communications are directed substantially from the teacher towards learner; the teachers need to be a good talker.

Counseling : Ultimately the learner centred; communications take place the other way around, from the learner to the counsellor, the counsellor needs to be a good listener.

Counseling in distance education possesses 3 characteristics : the characteristics of learners, of the Institution and of the learning process.

The characteristics of distance learners :

- May be isolated, both from other learners and Institution
- Will certainly have previous educational experience which may have positive or negative.
- Are very likely to have other substantial time commitments in terms of their home and work.
- Will come from a wide variety of backgrounds, both educational and occupational.
- Will be thoroughly committed, provided the courses they are taking at suitable level are meeting their real needs.

The characteristics of the Institution :

Counselling is important in helping to individualize services to learners and in overcoming the problems of system. An Institution which develops a regional network of services is still likely to have its offices hundreds of miles away from its learners. But in countries where communications are difficult that remoteness is compounded by delays and problems in the delivery of course materials.

An Institution that is trying to produce course materials of several different kinds, and deliver them to learners as well as provide support services is likely to develop a complex bureaucratic system of administration such systems can very effective in dealing with large number of learners but may be inflexible and damaging when dealing with individuals.

Learning Characteristics :

A learner must develop an effective set of appropriate learning strategies or study skills. Some learners may already possess these, some may need help. The process of acquiring such skills may be a cognitive one.

Counselling is important in helping people to develop their own individual strategy for studying under a distance education system.

Counselling may be appropriate – at a decision point or when some kind of barriers appear. Decision points can occur at several stages of a learner's progress such as :

- Whether to apply for a course or not
- Which courses to take
- What career possibilities to aim for
- Whether to withdraw or to keep going
- How much time to devote to family / job / course

These are substantial decisions.

- Whether or not to miss an assignment
- Which methods of taking notes to follow
- Whether or not ask to questions in tutorials
- The best way to approach the topic in an essay.

Barriers : Barriers can occur at many stages of a learner's progress.

Study related : to do with findings, ways of studying effectively, completing assignments and exams.

Time related : Finding or rationing time adequately.

Personal : domestic / carrier / financial / health barriers.

Institutional : barriers erected, probably unintentionally, by the Institution – regulations, mailing delays and so on.

Substantial barriers :

Small barriers at the wrong time can be equally difficult.

- A tutor returns work late
- A badly timed holiday
- Extra pressure at work

The tutors work became more varied. The tutor and the student may have time to achieve a better mutual understanding. The tutor is able to point out relationships between the courses and to help the students, transfer knowledge from one course to another. It is also possible for a tutor to take responsibility for general counselling of the student.

7.3.1 What is Counselling :

The term "Counselling" may have different connotations for different people. In correspondence education, tution normally means marking and commenting on assignments, in some cases including other types of student tutor communication, such as face-to-face teaching, telephone tutoring, audio cassettes, and today even videophone. Computer communication etc. as additional elements. By counselling we understand all other interactions between students and institute which are not directly subject related. The counselling function thus embraces advice on general problems related to part time and distance study, course choices and further training, examinations, registrations, financial support and payment. In other words, counselling in distance education covers activities which under another broad term can be described as student support services.

Counselling :

The counselling plays a very important role in helping learners to quickly grasp the system of education that the university uses. The counselling section also gives advice on the selection of study areas, study in different courses, vocational guidance and personal problems. In addition the counselling section provides orientation to newly enrolled learners through various media such as radio and television broadcasts and news letter. It also provides telephone and mail guidance services which are responsible for the supervision.

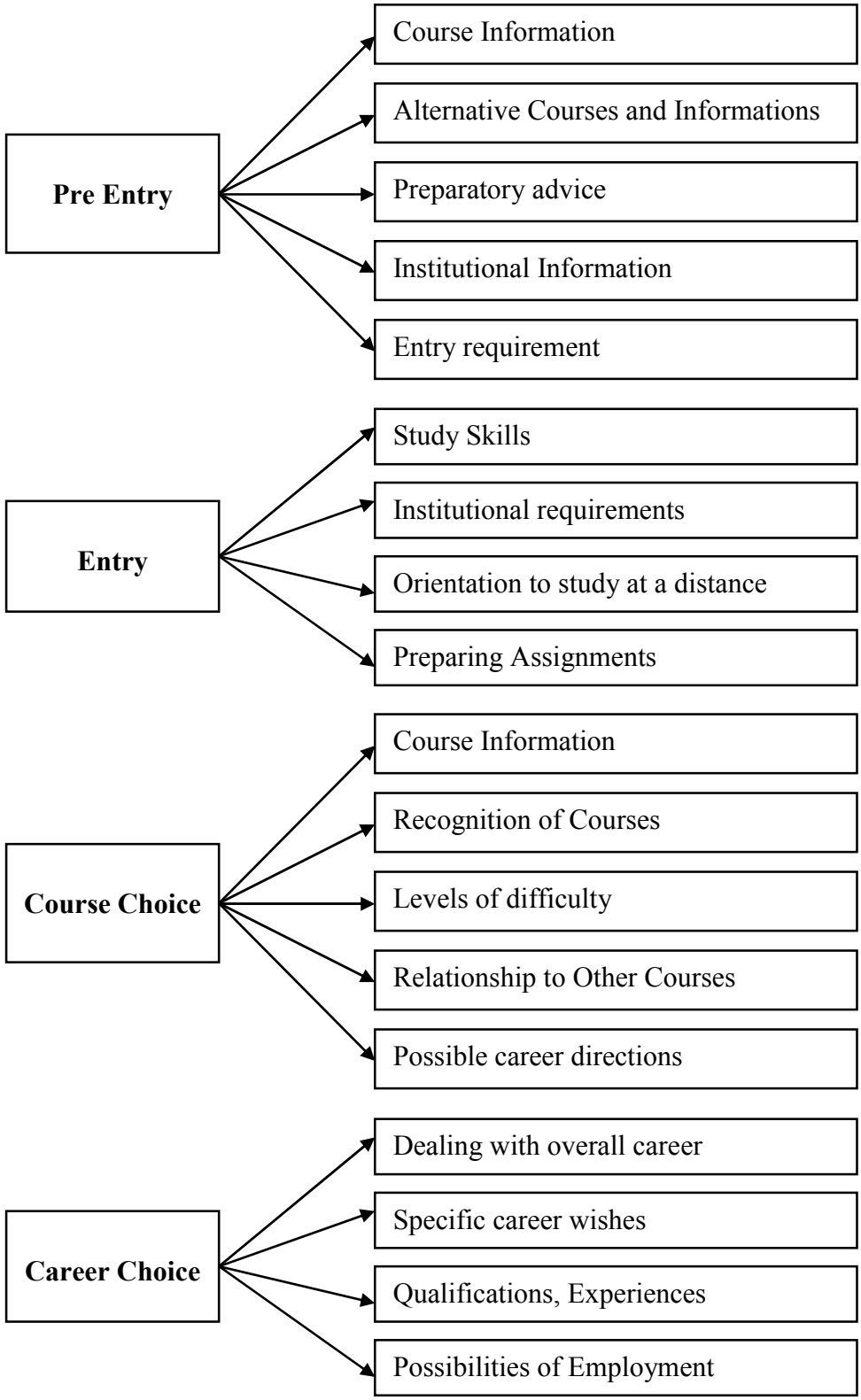
In the experiment one person integrates the roles of different tutors in different subjects, as well as student advisors / counselors. Within the responsibilities of this tutor we also tried to include other measures which we believe are important to help the distance learner, to complete studies in short, which would constitute a 'new' way of organizing the tutors work during the initial phases of study period. The emphasis is on increasing the experienced quality of the functions of the distance tutor and the two way communication between the tutor and the student.

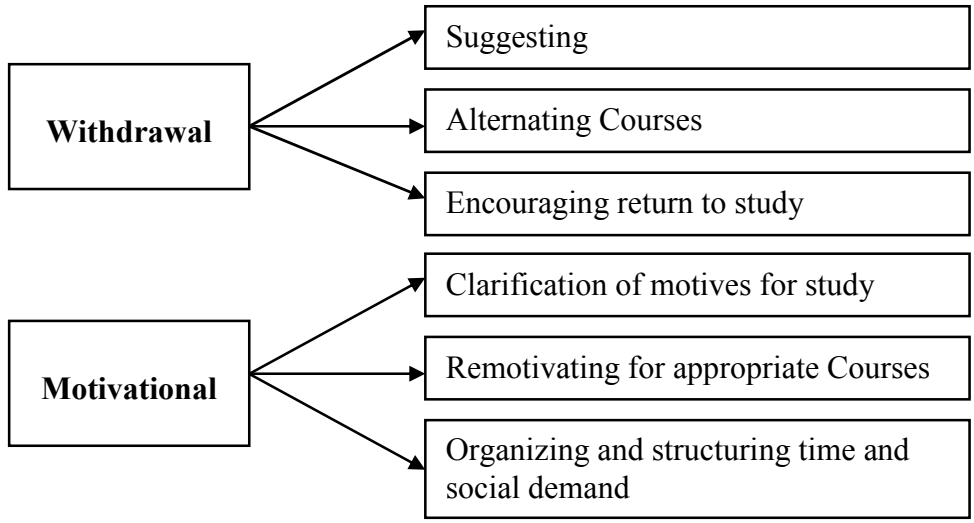
Categories of Counselling :

Learners might seek counselling of some kind. In this connection the counselling responses appropriate to particular issues raised by the learners. There is certainly more than one way of classifying counselling and indeed we have, the Informing – Advising – Counselling (IAC) spectrum which is not only a definition but an activity based classification as well. The IAC relates to two other classifications : developmental / problem solving and Academic / Non Academic.

7.3.2 Developmental Counselling and Problem Solving Counselling :

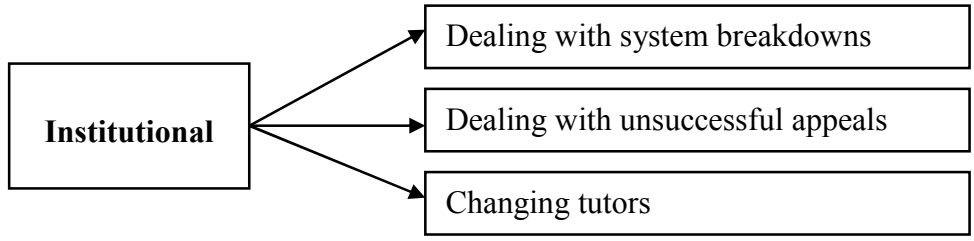
It is concerned with the development of learners so it covers issues such as :

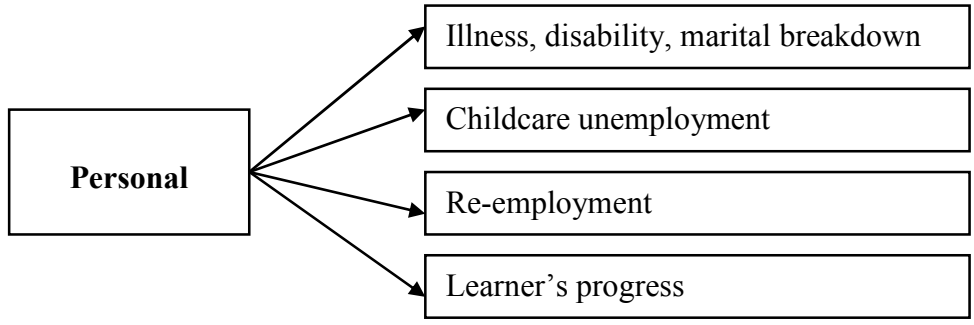


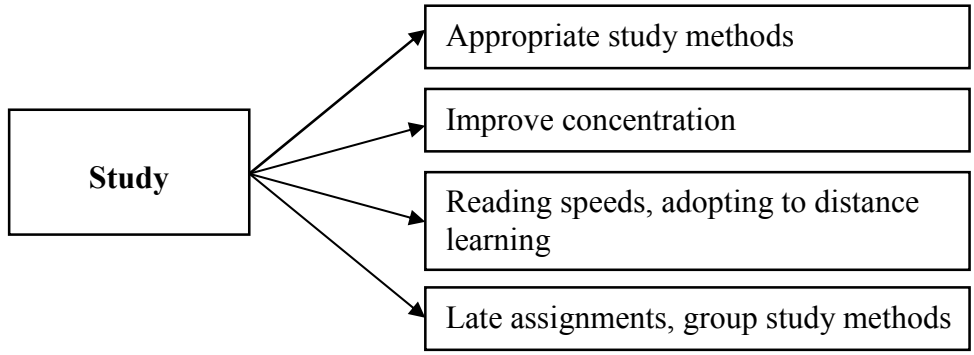


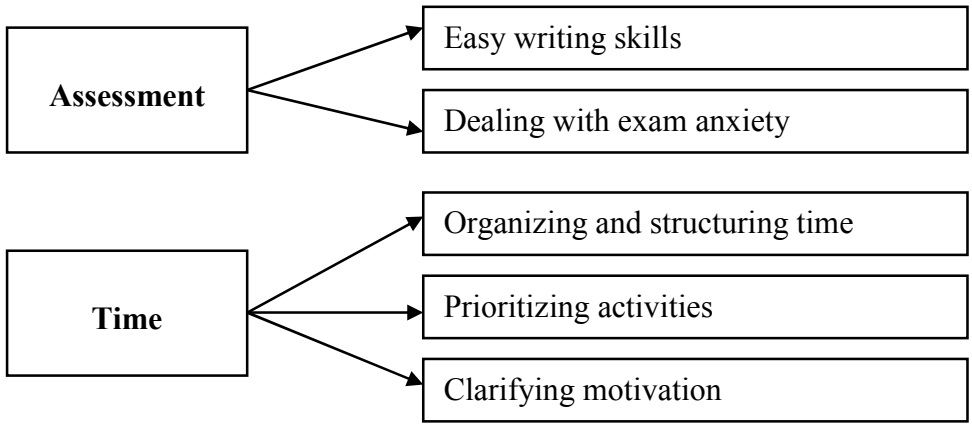
Developmental Counselling is easier than problem solving counselling. It is usually unstressed. The learners are not in a particular hurry to make a decision and so there is time to explore appropriate directions.

Problem solving Counselling is often the most appropriate responses to barriers in the learners progress.









Academic and Non Academic counselling :

It is particularly helpful when considering the way in which counselling services are organized in an Institution and the time of year at which they occur, that is, who does what and when.

Academic Counselling : Covers all course and course based topics, such as preparation, specific course study difficulties and exam techniques. Academic Counselling tends to relate to specific and cognitive issues.

Non Academic Counselling : Covers all other areas of counselling. As such course choice, general study difficulties, and exam anxiety. Non academic counselling tends to related general and affective issues.

Tutoring :

A tutor provides expertise, experience and encouragement. They do not provide "answers" but rather assist in problem solving in getting answers. The challenge is to focus on assignments within the context they are assigned.

- **Tutors should not be expected to diagnose learning disabilities :** Diagnosis should take place outside of the tutoring process by a professional academic counsellor.
- **Tutoring Strategies**
- **Seek out training to be a more effective tutor :** This includes subject matter as well as the tutoring procedure.
- **Clearly establish expectations for your learner :** What are the expectations of your learner? of the teacher? and of those close to the learner (Classmate, department, school, family etc.)
- **Keep and follow a consistent set of rules :** Write them down, post them, refer to them, Rules are necessary but must be mutually agreed upon with the learner. They must be fair and enforced consistently.

- **Have a clear idea of your own strengths and limitations** – and what skills or knowledge you can offer as a tutor. One reward of tutoring is the opportunity to use and apply what you have learned.

- **Know the learner :** Discover her / his strengths and challenges in learning. Under what circumstances does he / she learn best? Poorly? (Do not assume that every one's learning styles or conditions are the same or similar to yours.)

Build a relationship and trust :

- **Be aware of the difference between** you and the learner, (Not trying to change the learner, but to accommodate and use their learning styles in order to complete the task. Since you are more experienced, it is your challenge, adjust, adapt or find a way).

- **Be open and honest :** We do not tutor to impress, but rather to help.

- **Do not afraid to acknowledge :** that the chemistry between the tutor and the learner is not right that another tutor may be more effective. The goal is to help not endure.

The tutoring session :

- **Listen closely to work, out the real problem :** Check to see if the learner has prepared with some time and effort and attempted the assignment.

- **Assess the situation :** Think in terms of realistic objects, develop a 'contract' of

  - Agreed upon learning outcomes

  - Expectation of communication (availability, one / several sessions, means of communication, face to face, e-mail, telephone etc.)

- Use questions to enhance a problem solving

- Demonstrate or model similar process

- Don't be afraid to reveal that you don't know something

  - You can refer the learners to more sources, including the teacher. You can take the opportunity to learn / problem solve and bring back answers and demonstrate that you are in a learning process as well.

- **Give positive feedback, encouraging vocabulary**

- Find success and reinforce efforts, in even minor accomplishment.

- Summarize and review – Enable follow up

- Celebrate accomplishment

- Keep records for future references.

Role of tutors and tutor Counsellor :

According to (Kaye and Ramble 1981) : at UKOU

(a) Commenting on written work : grading written work submitted, assisting learners to understand course materials through discussion, conducting discussions face-to-face or occasionally be telephone, organizing self help groups of learners, providing feedback on course materials and learner problems to full time staff.

(b) Answering learner quarries about the system : helping learners plan their works, negotiating with the institution on behalf of learners when problems occur, advising applicants if required, inducting new learners into the course, advising learners on course choice, giving guidance on problems of an administrative, nature such as 'fee payment late submission of work, helping learners develop study skills.

Recently computer assisted distance tutoring has introduced at various places in the west. Such tutoring consists of the computer processing the answer written by the learners, and then preparing tutorial comments which are computer printed, and passed on to the learner, whatever evidence is available today it appears that computer comments work better than the traditional tutor comments. (Computers can thus lessen the heavy burden on distance teachers and give them more time to work on open assignments, which is also an advantage for the learners.

To inspire the learners individually, a distance teaching institution naturally arranges for tutorials. A tutorial among other things, means a period of individual instruction given by a college tutor. This definition also implies : (i) tutorials pertain to higher education and that (ii) objective of a tutorial is to provide individual instruction to the learner, Tutorial is supposed to provide effective didactic communication between the learner and the teacher. The effective communication is effected by

i) Allowing more time for individual interaction with the teacher

ii) Creating a more congenial academic atmosphere in which all types of learners find it convenient to express themselves : and

iii) Providing for close relationships among the learners and the teacher on the other

In a classroom situation the teacher addresses him / herself to a group of 30 to 120 learners, where as a tutorial group may consist of about 10 / 12 learners. Classroom teaching, in most cases ends up as process that is teacher-centred (in general, learned remain passive most of the time), unidirectional, impersonal (teacher can not build personal relationship with a large number of learners. The teaching and learning process in a tutorial can be learner-centred (if the teacher does not dominate the situation purposely), multi-directional and intimate (not only the teacher comes user to learners, the learners also come closer to each other).

However, tutorials 'individualists' learning; It compliments what is achieved in an impersonal way in the classroom situation; it also functions as a corrective operation. In Distance Education, the purpose of the classroom appears to be served by the study materials sent to the learners and the purposes of the tutorial get served through the work of assignment.

Tutorials constitute one of the academic services that the university arranges for the benefit of its learners. Through tutorials academic staff provides knowledge, enrichment of knowledge, a wider and deeper understanding of the content of course blocks which learners study on their own. Tutorial also help to clarify the problems, learners may have with the teaching materials they are studying. Tutorials are conducted on weekends in local study centres.

Check your progress :

Q.1 What is counselling and how it is different from Lecturing?

Q.2 What are the major difference between Developmental Counseling and Problem solving Counselling?

Q.3 A good tutor is not a good teacher justify it?

Q.4 Is it compulsory to attend counselling for the learner? If yes then why?

7.4 FEEDBACK MECHANISMS, ASSIGNMENTS AND TERM END EXAMINATION :

Feedback is the return of some of the output of a system as input so as to exert some control in the process, feedback is negative when return exerts an inhabitory control, positive when it exerts a stimulating effect.

1) Information produced by a receiver and perceived by a sender that informs the sender of the receiver's reaction to the message. Feedback is a cyclic part of the process of communication that regulates and modifies the content of message.

2) The return of some of the output so as to exert some control in the process.

A positive feedback loop or mechanisms is when an action causes a reaction and the reaction causes more of the action, which in turn causes more reaction, and so forth.

A teacher who assumes that a child is intelligent and so treats that child as though he / she is intelligent, the child then acts intelligently because of the way he is treated. This reinforces the teachers belief that the child is intelligent. So he acts on this belief with even more conviction, so the child responds even more and so forth.

Generally a positive feedback mechanism results in explosive growth and can only be stopped when a limit is reached, or by external means, for example, when the teacher can not treat the child any better, or the child can not act any better, or the child is placed in a different class.

While positive feedback mechanisms have positive results as in the example of teacher and student, the results can also be unwanted and negative.

Negative feedback mechanisms are self regulating responses to changes, experienced by a system or organism, usually due to external influences. These mechanisms feed some of the output of these changes back into the system to trigger counter responses which result in restoring the system to its previous undisturbed state or mitigating the effects, of the initial change. It is this characteristics of 'negating', the impact of changes which defines such operations as "negative feedback mechanism."

7.4.1 Providing Feedback in Distance Learning Course :

Positive feedback focused on an assignment has a positive effect on learners in terms of their attitude and achievement. One of the principles is that good practice gives prompt feedback. By providing feedback to students in all classes, format is important, more challenging than in the classroom. By providing quality, feedback help distance learning students to learn. Quality feedbacks all have to be generated and provide substantive replies to questions and comments on assignments, but there are also ways you can automate feedback to students.

Benefits :

- Students feel more connected to the class making them feel more comfortable.
- Students get a better sense of what content they have mastered and what areas they are weak in, allowing them to focus their effects where they are the eveakest.
- Students feel more positive about the learning process because they feel as though some one is interested in their progress.

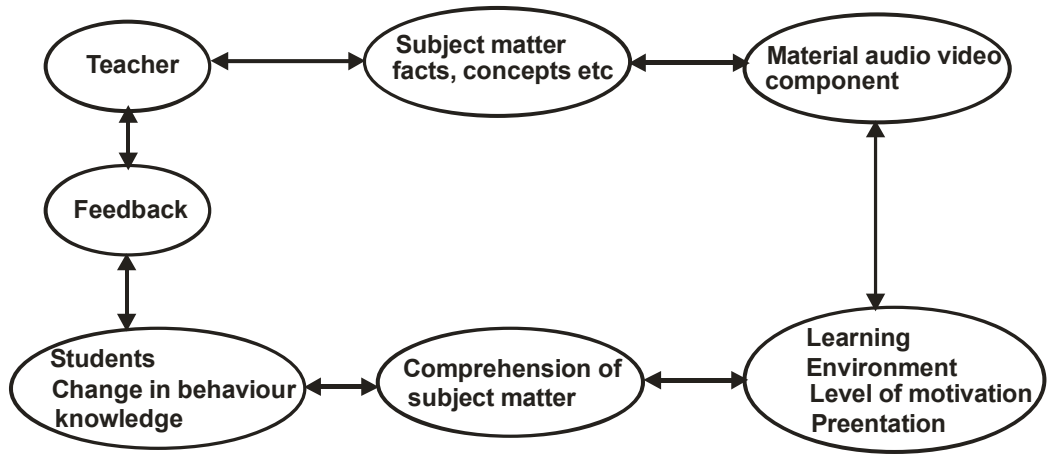
Two main types of feedback :

1. **Information Feedback :** This type of feedback is evaluative in nature. It is often given in response to a student, question or assignment grade and comments.
2. **Acknowledgement Feedback :** This type of feedback confirms or assures the student that some event has taken place.

Feedback is a special input about the system and its environmental conditions and about its functioning. This enables the system to take corrective steps to adjust its malfunctioning, if there is any. Feedback plays an important role in improving the quality of the course materials

and achieving the desired objective. The teacher should get information about how his / her materials / units, audio or video programmes are being received and assimilated by the students. Such information will make communication more effective and will eliminate errors in decoding and the problem caused by 'noise' in the entire teaching / learning process.

On the other hand the students should also get feedback on their progress of comprehension of the content discussed. Feedback about their performance will motivate the students to draw more from the learning material. The entire process is as follows :



Entire Communication Process

Feedback refers to any process by which the sender obtains information as to whether and how his / her intended receiver received the information. The receiver in turn, raises his / her queries or doubts for further clarification and tries to confirm whether or not she / he has understood the information correctly, or as it is intended by the source.

Feedback influences one's on going or future communication behaviour. In a face-to-face situation feedback can be verbal or non-verbal. Feedback takes different forms. There can be two types of feedback – immediate feedback and delayed feedback. In face-to-face teaching, the students get immediate feedback from their teachers. Even in computer assisted learning the student can get immediate feedback on his / her progress. But since the student prepares his / her assignment responses and submits them to the evaluators for their comments and grading, she / he gets feedback on the work after a few days whether immediate or delayed feedback is important to make communication effective and to ensure the intended effect on the students.

7.4.2 Assignments :

Assignment provides home work, help to the students of class KG – to, college or university students in their assignments which are valuable to them. Professional people provide on line home work services, which give the best answers to the questions on time given by the students. The assignments help in thesis writing, essays etc. Accounting finance data

analysis, case studies, term papers projects etc. The online assignment helps service to the students in schools and colleges. Assignment occurs when some one who has written or sold a listed option receives a notice that the option has been exercised and he or she must fulfill the terms of the contract. Varieties of assignments developed in open and distance learning as per the learners performance. The more the counsellor / tutor intends to bring the quality initiatives of the learners different types of assignments are to be given. Generally assignments are directed by some principles. In order to estimate some learning outcomes of the learner or to be assigned some work which may be written, interactive and problem solving, motivating, Value judgement and developing new things, creative types.

Distance teaching system find ways and means to enable the distance teachers and learners to get to know each other. Special steps are taken by the distance teacher to introduce open assignments. These practices make academic exchanges between the distance teacher and the learner more stimulating facilitate better insights, encourage independence of thought and the discovery of knowledge. Larger number of assignments to be submitted in a particular course, the larger the number of occasions of contact between learner, distance teacher, consequent upon which the chances of the success of learners are brighter.

However, the distance learner, the distance institutions and the distance teachers agree that the two way communication generated by the work assignments. Assignment helps the learners in different ways :

- Studies become more stimulating
- Studies are better organized as the courses get divided appropriately.
- Learners are introduced to each other in the course.
- Learners build a closer acquaintance with the institutions.
- Learners are corrected where they might have gone wrong.
- Learners are reinforced through encouragement
- Learning is applied to the solution of real and / or hypothetical problem.
- Revision of the course becomes easier.
- Significant parts of the course become clearly visible.

The learners in the context of distance should recognize their respective role as distinct from those of course users in a traditional context. A systematic feedback can be obtained from the records of learners scores on assignments the learner's assignment of the course materials. Hence a periodic review of learners' scores on assignments can help for identifying problems with the assignment.

The assignment record, have the sources, where difficulties emerging from the assignments.

- The learner – ability assumed while preparing the assignment may be much higher than the actual learner ability and consequently the level of performance expected may be higher.
- The objective or the task set for the assignment may not reflect the objective or the learning experience of the unit.
- The presentation of assignment may be defective.

As a consequence the learner gets a partially or totally different idea of the task required from what the course writer intends to give.

The organization of counselling sessions, practicals etc. are based on the specific requirement of the programmes being offered and guidelines laid down by the concerned schools. It also supervises the evaluation of assignments and conduct of term end examination as its study centres and some times at the regional centre itself.

In distance teaching evaluation of assignments are more important. Quality achievement of learners is more intensive, programme evaluation with varieties of study materials, practicals and projects are more support to the learners as well as counsellors in the study centre.

Assignment Evaluation :

- Number of Assignments received per course programme to be identified.
- Time given to learners for submission of the assignment.
- Mechanisms adopted for assignment handling.
- Mechanisms adopted for monitoring of assignment evaluation.
- Practice followed for assignment as a teaching tool.
- Mechanisms for follow up action on assignment.
- Learners who have submitted within the deadline.
- Number of feedback responses on counselors work.

In learner support services, to provide quality assurance, it is necessary to develop for both process product evaluations. In this context, the concept of constructing performance indicators for educational organizations are stated below : mainly the factors of inputs, processes and outputs of these activities are considered. Input (resources utilized), process (utilization of the resources) and output (products, achieved).

- Design of support system
- Counselling
- Audio-video sessions and Teleconference

- Practicals
- Assignment Evaluation
- Library services
- Administrative Support (including General querries)
- Learner Registration and Evaluation Registration
- Term End Examination and Results

7.4.3 Term End Examination :

The learner needs some standard to measure his / her own answer to the self assessment questions. Evaluation or assessment may take two forms :

(a) Assessment of Courses by learners themselves : A brief questionnaire seeking information regarding the quality of the study unit, along with materials, and the student asked to respond.

(b) Assessment of courses by another person (Tutor, trainer or counsellor) : It is necessary to evaluate course and see how far they are meeting the educational needs which the learners identified in the beginning.

In open and distance learning system, examination system should be upto the mark few methodologies may be adopted for the same.

- Introduction of examination calendar
- Timely commencement of examination and publication of results
- During paper setting the entire syllabus should be followed.
- Multiple choice, filling in, choose the right answer type, objective type questions in the assignment as well as in Term End Examination.
- Effective use of interactive online tutoring and assessment of assignments.
- Practical counselling cum evaluation programmed may be arranged.

The characteristics of Term End Examination are as follows :

- Methods to be used for dissemination of information regarding exams.
- Mechanisms developed for fair conduct of examinations.
- Arrangements for conduct of Exam.
- Different topics / units are to be identified.
- The more deepening, problem solving, characteristics of Term End Examination.
- Scheme of examination

Generally the University conducts Term End Examination (TEE) or Annual examination twice a year, April and October which are held at study centres. Students appear in TEE subject to the condition that registration for the course(s) in which they appear is valid, minimum time persue these courses, and have submitted the required number of assignment(s) to there study centre, if any, in those course within due date. There is provision of submit examination form with exam fees and late fees as given in different programme guides and the forms can be submitted to the director, of Open University. It is an essential pre requisite for the students to submit the examination form; so as to reach within the prescribed dates.

Students may appear the TEE at the centre of their choice by filling up the code of that centre / in the examination form.

Learners are advised :

- To remain in touch with their Study Centre / Regional Center / headquarters for change in schedule of submission, of examination form / fee if any.
- To fill up examination form for next term end examination without waiting for the results of the previous term end examination and also filling up the courses, for which result is awaited.
- To fill up all the particulars carefully properly in the examination form to avoid rejection / delay in processing of the form.
- To retain the proof of mailing / submission of examination form till they receive examination intimation slip. Learners should keep a photocopy filled in TEE form, photocopy demand draft and postal receipt.

How to conduct TEE ? (Care should be taken up by the Tutors / Counsellors)

- Intimation to learners with regard to exams
- Suitability of examination
- Learners attendance at Examination
- Number of learner qualified in the exam
- Number of learner who do not take any examination
- Mechanism used for monitoring
- Number of learners not received intimation slips for attending the exams
- No. of learners submitted exam for after due date
- No. of requests received for checking or reevaluation.

- No. of requests received for non-inclusion of awards.
- No. of requests received of wrong inclusion of award.

The above queries may be recorded by the examiner / study centres.

Check your progress :

Q.1 Why should a learner do assignments?

Q.2 "Performance of a student / learner depends on "Feedback - How?

Q.3 What are the criteria of Term End Examination?

Q.4 What is the procedure of conducting Term End Examination?

7.5 LET US SUM UP :

In order to transact any curriculum one should read to learn about the learners, their age, their previous training or education, the things they already know, the things they were interested in and the things that were important to them, their personal goals and problems.

A good learner must plan a study programme time and spread over a period of time. What to study, when to study, how to study, where to study, how much time to spend on study etc. It will make a systematic concept formation, in learners mind.

- Concept maping : Learner has to go through a correct way of construction of a "concept map" which are outlining, note taking / marking and summarizing etc.

- Reading skill comprehension both are equally important in study skills. Learners involved in more and more in reading process which is completely a integrative one includes cognitive, perceptual and affective. Reading skills involve SQ 3R Technique which includes, survey, Question, Read Recall, Review etc.

- Counselling and Tutoring both are equally emphasized in open and distance learning. Counselling responses appropriate to particular issues raised by the learner. Categories of counselling problem solving / Development and Academic / Non-academic varieties of steps inserted in between, Pre-entry, entry, course choice, career choice, withdrawal, motivational. Problem solving includes – Institutional personal, study assessment time.

Tutoring tutor provides expertise experience and encouragement. They do not provide 'answers' but rather assist in problem solving in getting answers.

- Feedback mechanism, Assignments and Term End Examinations : Assignment responses to facilitate learning. It is a process of formative evaluation. It helps how learner progresses in his studies. In Term End

Examination learners asses their performances. A continuous and comprehensive evaluation is involved in learners assessments, through self assessment schedule. Besides, in a course two assignments in prescribed time. Two times term end examination conducted in one course.

7.6 UNIT END EXERCISE

Q.1 What is SQ3R techniques. Explain this techniques in developing reading skills.

Q.2 What is feedback mechanism? What types of feedback is provided in distance learning course? Explain it's benefits.

Q.3 Write short notes:

a) Term end examination

b) Role of Tutor counselor

c) Note making

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8

ROLE OF ICT IN ODL

Unit Structure:

8.0 OBJECTIVES :

In this unit we have discussed, Role of ICT in Open and Distance Learning, Use of different strategies in ICT. After working through this unit you should be able to :

- Define the Role of ICT in ODL.
- Use different technologies in Education.
- Define satellite technology, Computer learning, Teleconferencing etc.
- State various Innovative practices
- Explain Net based learning, Project based and Lab based learning.
- Understand Summer residential schools

8.1 INTRODUCTION :

ICT offers enormous potential to impart quality education remove illiteracy, provide educational opportunities to the unreached, reduce imbalances among regions and social groups and train teachers. The convergence of telecommunications, audio-video and computers has a tremendous potential to revolutionize education and transform the teaching learning process.

The use of ICT, is for making quality education accessible to all, particularly to the disadvantaged group. It provides interface and integration of face to face and distance modes of transactional processes in the classroom environment and to workout strategies for content generation and share these to improve the professional competency of teachers. Digital technologies improve teacher education programme. Teacher is, nowadays not a mere transmitter of knowledge but also a facilitator, collaborator, coach mentor, knowledge navigator, and co-learner in the teacher learning process. Presently ICT includes content and pedagogy, collaboration and networking, social issues and technical issues. ICT can facilitate both the teachers and the children construct new knowledge or experience and thus can strengthen the learning process.

ICT can be briefly described as the result of convergence of technologies telecommunications and television with informatics. The computer considered as an engine of the mind has tremendous capacity to store and process data and to produce and disseminate information with the emergence of diverse multimedia and networking possibilities computers have emerged as tools for innovative teaching and learning. Students are proving more adopt than their teachers at mastering ICT based delivery system. The scope of the new technologies for transforming existing educational set up is indeed enormous and includes the possibility globalization of education, adaptation of foreign curricula, new teaching materials and the networking of schools. Teachers must master the use of information skills of research, critical analysis, linking diverse types and sources of information reformulating retrieve data – if they are to teach their pupils to develop these skills. Teachers must be adequately equipped with more didactic competencies so as to assume their new role as experts in the learning process. ICTs are to be used as tools for training of teachers.

8.2 ROLE OF ICT IN OPEN AND DISTANCE LEARNING :

ICT has proved that learning is possible any time and anywhere now. ICT brings about several benefits to the learner and the teacher. These include shared learning resources, shared learning spaces, promotion of collaborative learning and move towards autonomous learning. ICT should be used as a vehicle for educational transformation. ICT, make radio lessons interactive and lively, development of audio video materials

in capacity building, regular teaching learning process for sustainable quality of education.

ICTs and satellite communication increased the reach of open learning system and the use of distance mode in education and training. Open and distance learning having access to a variety of technologies audio, video, radio, tapes, television, video cassettes teleconferencing, computer and Internet, Word Wide Web etc. of Information Communication Technology (ICT) which vary with Institution to Institution and course / programme to course / programme end learner to learner.

Introduction of Information and Communication Technology of new methods of imparting instruction in distance teaching, the use of multimedia and ICT based packages in Open and Distance learning is imperative. The ODL institutions have to search for new ways to educate and keep learners upto date and to the brim. Use of ICT in ODL, brings learning interactive, where the learner is guided by the lecturer and the facilitator initiating the learning process, gaining direct access to various sources of information.

Role of ICT in ODL include teleconferencing innovative self learning modules, greater reliance on practicum especially, lands on experience, tutorials, phone-in facility and academic as well as personal counselling. TV broadcast and greater use of audio – video cassettes have made it possible for distance education learners to upgrade their knowledge and competencies without leaving their place of work. Now distance education has been accepted globally as an alternative to formal education particularly to reach the unreached.

8.2.1 Audio and Video :

Audio :

Distance teaching is basically a multi-media process. Radio is the cheapest and the most easily accessible electronic media, with its potential audience very large in comparison to other media. Radio lends itself to serve different purposes. For instance, while it provides learners with new joys of learning, it can develop their command over vocabulary, promote concentration and critical listening, and improve fluency and confidence in speech and discussion. It can be used for formal and non formal education. Its broadcasts can be designed to supplement / enrich the formal school subjects.

Audio Tapes :

According to Rowntree (1994) the purposes of using audio in teaching could be as follows :

- To provide “aural source material” for the learner
- To breathe life into ideas presented elsewhere in the course
- To help the learners practice skills

- To make the teaching more human and personal.
- To encourage and motivate the learners.
- To influence the learners feeling and attitude.
- To let learners hears the voices of experts, users, clients other learners etc.
- To provide necessary variety in the learner's learning process.

Audio tapes can overcome some of the limitations of radio broadcasts. It provides considerable freedom to the learners who can use it at any time and place of convenience. The learners can replay the tape any number of times and review the taped materials over and over again Radio / audio medium has few characteristics like easy accessibility, wide coverage, law capital investment and operating cost, easy learner reception, direct instruction easy production, effective creation etc.

Video :

It is a two ways, interactive communication, where in students and other users can transmit the requests to a central database, video programmes become popular in the teaching learning process. The video cassette is considered a more effective medium than the television broadcast. Video cassettes have certain advantages over television. They are more flexible and convenient in their use because the students have full control over their pace of learning in terms of their time and place of using the video cassettes. Additionally, the replay facility has made it more suitable to individualized learning. Video programmes are equally useful for the distance as well as face-to-face classroom teaching. There is difference between cassette and the television broadcast. Video cassettes are available as and when needed, Repetition / search / mastery learning, individualized pace of learning, integration with other media, more flexible and decentralized systems of delivery, allows the students control over the learning process, and difficult for distribution.

The video cassette has some weakness too. The use of video cassette depends on the availability of the video cassette replay (VCR) equipment, and we can not ensure each distance student access to the replay equipment in near future. It is therefore, not advisable to exclusively depend upon the video cassette technology.

Taking into account the potential and the weakness of video cassettes in teaching learning at a distance, IGNOU, New Delhi makes use of the video cassette and the broadcast technology to supplement printed texts, and these programmes have become an important component of the course materials. The audio – video cassettes recorders are available at the study centres to those students who want to make use of the programmes. Video cassettes are viewed in groups at the study centres, and so, the cassettes are usually designed for group viewing. At the end of each programme, there is a general discussion among and with the academic counsellor on the content presented. Group viewing helps the students draw more than, what they may do individually, from the video cassettes. They get support

and guidance from both the peer group and the academic counsellor, as they learn as much from the peer group as from the programme itself.

Some video programmes are produced for individual use also. The content of such video programmes is broken into several components with suitable activities/exercises. Such video programmes allow the student full control over his/her learning. Video materials are however economical than other audio – video movies and plays.

8.2.2 Television and Computer :

Television :

In the current age, different electronic media are used as vivrant communication technologies in the educational system, most commonly, available electronic media as radio and television are very popular for the distance students. With the advancement technology a variety of visual media – television broadcast, video cassettes, video disc, video text and computer, have become a multi media packages in teaching and learning at a distance.

Television is an effective tool in the hands of education if it is utilized imaginatively. Different subject matters are taught effectively through television strength of television in education as stated below :

- **Social equality in education :** Television increase the effectiveness of instruction and cuts down dropout rates.
- **Higher Quality of Instruction:** Television programs are well planned / organized and better presented than the usual classroom instruction.
- **Reduce dependency on teacher :** The students learn from television with their own efforts. They need minimum help from the teacher if TV used.
- **Flexibility:** Rapid and continuing change in curricula and instructional methods are made possible through educational television. Courses can be constantly modified not only to update them but incorporate the constantly changing needs of the society.
- **Use of the best availability teacher :** Educational television makes educational opportunities equal through out the country. The students in rural and deprived areas of the country, where educational resources are not available, get the same quality of education as their counterparts in the urban centres. The best teacher is equally available for every student.
- **Cost effectiveness :** If television is utilized on a large scale, it proves cost effective. It can provide education through out the country at a minimum cost without lowering the quality of instruction.
- **In-service training :** TV can be used for in-service training of educators in non-school hours. NCERT, India is telecasting number of

programmes every week for teachers to improve their teaching methods and skills.

- **Logistically simple :** Educational television is logistically very simple. The problems of planning and operating distance learning can be overcome to some extent by teaching through television.
- **Combination of audio-video components :** Television has the advantage of the audio as well as video. Therefore it has a greater appeal than the radio and the print media.
- **Stimulation :** Through educational television, we can control the stimulation (the audio and the visual) and responses (learning).

Some limitations of Television :

Many more advantages of television are taken up for education. But there are certain limitations or disadvantages found which are as follows :

- **Limitation of one-way communication :** It is a "passive medium" as some educators call it. The absence of active participation and lack of provision for feedback are likely to fail.
- **Problem of pacing learning :** Students differ in their learning speed and style.
- **Poor Accessibility :** Television is still beyond the purchasing capacity of a common man.
- **Insufficient viewing condition :** No adequate arrangements for viewing the programmes in colleges / schools.
- **High cost :** It is very expensive
- **Difficult to Integrate :** Programme in television in line with the content of prescribed study.
- **Visuals becoming a distraction :** Create interference in learning

Television (TV) :

TV stimulates the students' learning enhances their attention, learning, assimilation and application of knowledge gained. Although TV is used mainly being used by the public as a medium of entertainment, but it plays the role of a teacher. It is necessary to use TV as teaching aid, and get the maximum out of it. The TV and the video programmes have to be attractive, visually rich, interactive in nature and need based. Educational television have been taken by various experts – either as individuals or as representatives of institutions.

Educational Television is a system that presents learning content in various subjects produced by an agency. It is a means of providing direct instruction (formal) as well as continuing education (non-formal). It has a capacity to bring the world into a classroom and a classroom into a home. Wayne Loy calls Educational Television as the "Electronic blackboard of the future" and lists the varieties of characteristics.

- It combines both sensory and auditory experiences.
- It is an extension of the radio broad casting
- It offers uniformity of communication.
- It is a versatile educational vehicle.
- It stimulates and reinforces ideas.
- It provides live broadcasts on the spot events.
- It provides a powerful visual medium.
- It is a means for leisure time activities.

Role of television in Distance Learning :

It has helped to facilitate the rapid dimension of new curricular ideas, many of which remain long after their parent projects or programme.

- Improvement of quality
- Television as a catalyst
- Television as a means of extending children experience.
- Television as a means of introducing affective education.
- Television as a means of equalizing educational opportunity.
- TV as a means of improving efficiency and productivity.
- TV based Instructional systems.

TV Programmes Role :

- To introduce the content for the teacher to elaborate later and to provide drill and practice to the students.
- To provide background material for a lesson the teacher will deliver.
- To provide salient illustrations that will stimulate class discussion and discovery.
- To reinforce and review ideas already covered inclass.

Role of Teachers :

- Planning and preparation of programme
- Production of programme
- Presentation of programme
- Utilization of programme
- Evaluation of the programme

Computer :

The computer appeared in selected Indian Schools during 1984 – 85 as part of a national project for developing Computer Literacy And Studies in Schools (CLASS). This project CLASS have four objectives :

- To provide students with a broad understanding of the computer and its use.
- To provide hands on experiences
- To familiarize the students with the range of computer applications in all walks of human activity and the computer's potential as a controlling and information processing tool and,
- To demystify the computer and to develop a degree of case and familiarity with it, which should be conducive to developing individual creativity in identifying and developing application relevant to the student's immediate environment.

Computer network in ODL is very useful means of immediate delivery of message. It also encourages interaction between the learner and the computer, between learner and tutor, and between learner and learner connected through network. Various types of computers including major data based as well as home computer can be interlinked through networking.

Computer based instruction can take place through remote network as well as local network. Remote networks include telecommunications between central level data base and computer and the micro computer at delivery level. The local network use terminals for connections inside a complex of an Institutions campus. Computer encourages individualized as well as group based learning depending on the available facilities of computer network through distance mode.

There is two way interaction take place through existing networks of computers. Teleconferencing through computer networks has advantage over video conferencing with regard to flexibility of communications through computers. In distance Education situation conferencing can be encouraged for interaction of co-operative learner group through local networking.

Computers have revolutionized the way we collect, process, store and disseminate information. Every document on the achievements mentions devices capable of storing an unimaginable quantity of information, but the invention that made all these possible is the computer. Chacon (1992) provides an interesting taxonomy of computer media in distance education. He has identified three modes of computer use as information processing interaction and communication.

Information processing :

This mode of computer use in distance education uses the principle – 'I learn by doing'. It is related to a series of abilities related to intelligence such as recall, ordinary, calculation, relationship, matching, reading and

writing. The computer is used as a tool for these activities. Computers can be used in distance education to perform the following pedagogical functions :

- Dissemination of information
- Development of language skills
- Learning foreign language
- Development of procedural skills
- Learning problem solving
- Learning analytical skill
- Learning design kills

Interaction :

The interaction mode of computer use in distance, education uses the principle – I teach something to myself'. Interaction is between a person and a machine. Interactive computing in education takes place when the learner is allowed to establish a dialogue with the computer, and receives stimuli in multiple media formats. The interactive mode of computer becomes a resourceful tutor. The pedagogical functions covered by this mode are : drill and practice, problem solving, procedural learning, tutorials, guided discovery learning and decision making.

Communication :

The communication mode of computer use in distance education uses the principles – 'I learn from others'. It envisages interaction among persons through the use of computers. The communication mode application in distance education is predominant because of its usefulness in providing support to remote learners.

The technologies used are E-mail and computer conferencing. The communication made performs the following pedagogical functions :

- Learning verbal communication
- Developing skills for analysis and synthesis of textual information
- Development of expression and articulation
- Developing skills for analysis and synthesis of textual information
- Motivational support to remote learners
- Development of critical judgement
- Participative problem solving
- Opportunity for incidental learning
- Substitute for direct experience
- Presentation of abstract knowledge

The communication mode provides an excellent opportunity for collaborative learning.

8.2.3 Satellite Technology :

The communication satellites are usually placed in a special earth orbit, which makes them appear stationary to the transmitters and receivers on earth. There are more than a hundred of these communication satellites in orbit around the world, and new satellites are being launched regularly. The satellite based communication is with different elements a ground based transmission station known as uplink and a receiving disc known as down link. The uplink sends signals to the satellite, which amplifies and transmits back to the down link, i.e. the direct receiving disc, which in turn to feeds a local station.

Satellite technology strengthens the capacity of the telecommunication network and the information flow, which among other things gives a boost to the educational development of a country. This is useful for students of fart flung areas who are pursuing their study at a distance. With limited intellectual resources, the satellite can e used more widely to provide opportunities of university education even to those students who live in small islands.

In big countries to satellite based communication is an effective alternative to cover many hundreds of widespread isolated locations which are otherwise very difficult to reach from the point of view both of cost and of feasibility. In some of the extremely mountains and inaccessible regions, the satellite is the only solution. Its main advantage is its accessibility.

The target audience for distance education courses run by the open universities is large and scattered across vast regions, the high cost incurred can be easily justified. Transmission through the satellite has been relatively cheaper and the system is more accessible to all parts of the country on a personal basis. Satellite can be used for education in atleast three ways – the telecast of educational and developmental programmes for the general public, the telecast of pre recorded programmes for students at all levels of education, and the live telecast of educational programmes with two way interaction.

In the first two cases the television and radio are used, but the third case satellite is used to support some of the existing two-way communication system, the computer, videotext, teleconferencing, telephone mediated instructions etc.

8.2.4 Teleconferencing :

Teleconferencing is understood as “Two way electronic communication between two or more groups, or three or more individuals, who are in separate locations; includes group communication viz audio, audio graphics, video and computer system.” (Olgren and Parker, 1983). Among these means audio and video teleconferencing is popular media in developed as well as developing countries. Teleconferencing plays a

major role in Distance Education situations because of its potential of group method of learning at a distance. It facilitates interaction between teacher and learner as well as Learner and learner.

- It acts as a substitute to classroom based face to face learning.
- Teleconferencing can provide solution to various issues in distance education.
- It proves its worth in the context of regularity and immediacy of two-way communication.
- It can be integrated with regular study activities because of its naturalness in communication.
- It can replace face-to-face interaction programme group activities conducted by tutors at regional study centres.
- It can be equally applicable to large size and heterogeneous group of learners.
- Teleconferencing course, especially audio teleconferencing can be quickly and inexpensively developed and delivered for small group of learners.

Because of application of teleconferencing 'independence and isolation need not be regarded as an inherent characteristic of distance education. (Garrison 1989).

Teleconferencing is and electronic means which can bring together three or four people two or more locations to discuss or share the use of two-way and one-way video between full motion and slow scan, electronic blackboards, facsimile, computer graphics, radio satellite and video text. Three main types of teleconferencing have been identified.

i) Audio teleconferencing and Video teleconferencing and

ii) Computer teleconferencing

Due to the growth of educational technology and its flexible nature each and every corner of the educational institutions are using for quality and instant service. Nowadays, dependence on this technology is accelerating.

Audio teleconferencing requires a multi-telephone line electronic switch or inter connection device called a bridge to which the user can attach a wide variety of data transmission devices and telephones. Audio equipments used with the bridge are the usually hand set, head sets, speaker phones, radio telephones and microphone speaker units (called 'conveners'). Teleconferencing in audio medium is used as a two-way communication. Generally audio-teleconferencing communication is auditory. The use of audio conferencing is rapidly becoming a preferred instructional medium in advanced countries.

The effectiveness of audio teleconferencing from the point of student learning, shows in different studies conducted, that, telephone is as effective a medium of education as is face-to-face teaching. During the 1984 International Symposium of teleconferencing there was evidence of strong support for educational audio conferencing. The support was mainly due to some advantages.

i) **Effective support for remote learners :** It can be very useful when most of the potential students are widely scattered among communities that are for apart and when each centre has a thin learning population.

ii) **Cost effectiveness :** The cost for starting and operating an audio teleconferencing system is relatively low in comparison with of the available methods.

iii) **Flexible System :** The system used can be adjusted quickly to serve large or small groups.

iv) **Familiar instructional mode :** The mode of instruction is similar to that of the seminar with the instructor being incharge of the discussion.

v) **Easy scheduling adjustments :** A scheduling adjustment can be made almost as readily as for the on-campus class rooms.

vi) **High-quality instruction :** The quality of instructional materials can be kept high because of the need for careful and early preparation.

vii) **Immediate feedback :** The teleconferencing system provides the facility for immediate feedback to the learners and allows them to covey their reactions to the tutors.

Video teleconferencing :

This type of teleconferencing is arranged by combining two way video media. This technology is in limited use in education due to its high cost and various other problems such as the linking of multiple locations by the medium of video, availability of hardware, etc. video teleconferencing however has advantages over audio – teleconferencing because of its visual component, video conferencing increases the quality of interaction because both the teacher / expert and the student can see each other and can share their feeling and experiences.

Through video conferencing it is possible to provide a two-way exchange of both lice television images and audio signals between two or more sites and three or more individuals.

i) **Two-way Audio : Two-way video Interaction :** This type of conferencing is possible through two-way television network. The presenters from different TV stations or video conference studios can interact with each other with audio-video conference system. Satellite system enables distance learners viewing the ETV programmes consisting

of teacher-student and student-student interaction taking place at a wide TV network. Learners sitting at home / learning centre and watching audio video teleconference get a feel of classroom through TV screen. Several questions raised by a particular learner may be raised by students participating in ETV. This system can serve both purpose, expert interaction as well as popular interaction. As this system requires high technology concentration, heavy expenses it is better to go for one way video-two way audio conferencing.

ii) One way Audio : two way Video Interaction : The participants remaining in different parts of the region can interact with the presenter of TV station. Satellite based communication system facilities, easy telephone communication from learners to the presenter. While the learner's queries at the time of telecast of lesson, the presenter can answer the questions through TV line on the spot. While the learner's queries can be accessible to the presenter by satellite connected telephone his response can be both audio and video based through TV.

iii) Tele-seminar : Tele-seminars are organized for small group of participants with major focus on achievement of higher level objectives. Interaction is restricted to a group of participants scattered over distance places, having access to networking for audio and video communication. The coordinator organizes the schedule of seminar presentation and discussion sessions. Mainly it follows two-way audio conferencing with coordinator's control. Two way audio and one way video teleconferencing sessions can be used for seminar purpose through such technology.

Computer Teleconferencing

Computer Teleconferencing is the most effective way of teleconferencing but at the same time involves a lot of cost, infrastructure, etc. With the adequate facility of suitable hardware, information can be sent and received at the convenience of both the teacher and the student with the use of computers. Computer conferencing can be text based or full video based.

Teleconferencing through computer networks has advantage over video conferencing with regard to flexibility of communications through computers. In computer conferencing text based messages and files are communicated through computer networks. On the basis of text based messages discussions take place through computer network. Such discussions may be of non-structured nature. In Distance Education such conferencing can be encouraged for interaction of cooperative learn group through local area networking (LAN). This has been experimented by the Open University, U.K. that computer based teleconferencing (Mason, 1989) is mostly feasible in the case of small cooperate learning groups. In computer conferencing system there is provision for the small group meetings to run parallel to the main transaction of large group computer conference. The large group deals with major issues related to course based experiences. Some major advantages of computer networking are as follows.

- **Resource Sharing :** All computer users do not have the best computer facilities available on a stand alone computer. It we can inter connect (network) the small computers and terminals with a powerful processor, secondary storage, printers etc. then all these small computers can utilize the powerful resources inter connected through a network.

- **Global Database :** When different computers are interlinked and can share resources then there is no need to store the same or similar information on the storage areas of individual computers. Data that needs to be shared by different users can be stored and maintained at a global storage area and users can be given access to it with their user ids and passwords.

- **Powerful Communication Medium :** The information stored and disseminated through networks has recently become most popular means because of the simple editing process and the facility of fetching data from all different sites in the world. In distance education the students can log on to the databases of universities and benefit from them in various ways e.g. be informed about the latest in research, navigate through one information topic to another, have an online explanation of different topics.

- **Information Management :** It is also easier in a global database networked set up. Any database in such a set up in such a set up will not have a duplicate copy and so editing, updation, deletion etc. are all required to be done at one place. This is in contrast to the systems of maintaining local databases where one information may have duplicate entries in different individual databases and in order to change only component of the information, all the databases keeping that component must be changed accordingly.

- **Online Information Exchange :** Any information is kept for people to use in any way they want to use and whenever they want. Using a computer attached to a network, one can easily and quickly access information in the right format, which can be used for further work and timely decision making.

- **Saving Money :** All the properties resource sharing, global information, maintenance, rapid information exchange of a network system reduce the cost of information storage and interchange. A bigger network system may be planned but it can be built in phases starting with a smaller set up, such as adding an extra which node, which is not at all problem, if planned in advance. This reduces the initial set up cost.

There are two types of technology for the transmission of network, print-to-print and broad easting. In a print-to-print network, the connection is between individual computers whereas in the broadcasting type of transmission there is a single channel used for transmission of data in packets. In a network all the computers and other devices are joined through data communication channels.

Check your progress :

Q.1 ICT involved in education is very effective – Justify.

Q.2 How the television is interactive for classroom transaction?

Q.3 In the modern age computer technology is barely necessary at all levels of education. Mention briefly.

Q.4 Give short answer of the following Questions.

1) Tele conferencing

2) Audio – Video tape

3) Satellite Technology

8.3 INNOVATIVE PRACTICES :

According to Francis Bacon "He that will not apply new remedies must accept new evils, for time is the greatest innovator. Stagnation sets in, if changes are not made. Innovations and innovative climate are therefore absolutely essential for any system or organization for its growth and development. Innovation refers to a useful, positive planned durable and deliberate change to alter old ways of doing things to new tried one and tested ideas to achieve pre determine new goals or objectives. The word innovation has been derived from the Latin word "novons" which means new, novice or novelty. No two persons look alike or them alike. What one perceives something may not be perceived in the same way, it may be a new idea, method or device. The novelty may be more apparent that real. What is new for one person may not be new for another.

John Adair (1990) states "Innovation is more than having new ideas it includes the process of successfully introducing them or making things happen is a new way. It turns ideas into useful, practicable and commercial products or services." The NCERT, New Delhi has given a wide variety of definitions to innovations.

- The process of making improvement, by introducing something new.
- The act of introducing something new / something newly introduced.
- The process of translating new ideas for improvement of teaching learning.
- The introduction of some thing new.
- A new idea, method or device
- The successful exploitation of new ideas.
- Change that create a new dimension of performance.
- A greater idea that is related.
- The capabilities of continuously realizing a desired future.

In order to improve the quality of teaching learning different strategies have been applied to help the teachers to make more effective and joyful in elementary and secondary schools. Followings are some of the strategies developed in the teaching learning process which can bring a new look the education system.

8.3.1 Lab based Teaching :

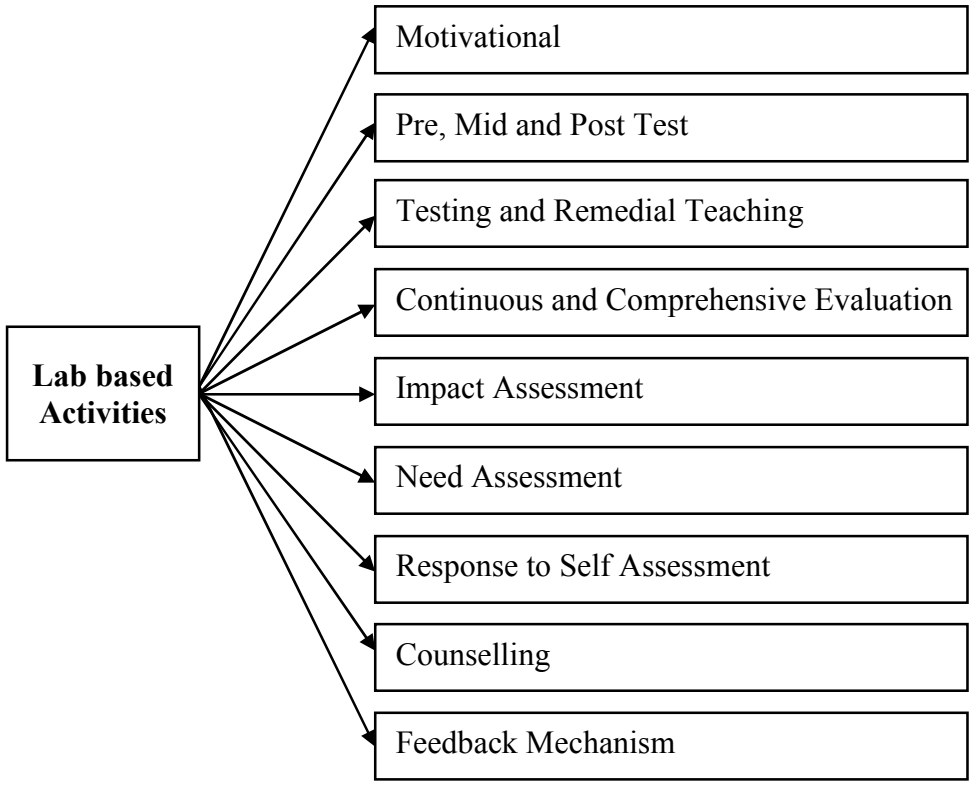
Laboratories are wonderful settings for teaching and learning. They provide students with opportunities to thing about, discuss and solve real problems. Science Labs can be among the richest experiences, students have to practice science much in the way professionals do. In order for Labs to be effective, students need to understand not only how to do the experiments but why the experiment in worth doing and what purpose it serves for better understanding a concept, relationship or process. Sulman and Tamir, in the second hand book of Research on Teaching (Travers, ed 1973) listed five groups of objectives that may be achieved through the use of the Laboratory in science classes.

1. Skills – manipulative, inquiry, investigative, organizational, communicative.
2. Concepts – for example, hypothesis, theoretical model, taxonomy category.
3. Cognitive abilities – Critical thinking, problem solving, application, analysis, synthesis.
4. Understanding the nature of science – scientific enterprise, scientists and how they work, existence of a multiplicity of scientific methods inter relationship between science and technology and among the various disciplines of science.
5. Attitudes – for example, curiosity, interest, risk taking objectivity precision, confidence, perseverance, satisfaction, responsibility, consensus, collaboration and liking science.

The lab based teaching and learning activities is –

- An attempt towards interpretation of stimuli, treatment, environmental conditions and observations.
- A sophisticated, exacting and powerful method for discovering and developing the innate skills.
- An effective application within non laboratory settings in classroom, in camps where variables can be controlled to some degree.
- An effort to exploit pedagogically the predictability of events in the experimental settings.
- A dynamic and inventory activities organized systematically.

Like a laboratory setting all sort of facilities and a series of action plans, follow up actions, treatments, monitoring, evaluation etc are furnished from beginning to end in this process.



Laboratory teaching assumes that first hand experience in observation and manipulation of the materials of science is superior to other methods of developing understanding and appreciation, laboratory training is also frequently used to develop skills necessary for more advanced study or research. (Gage, 1962)

General Lab Instruction : Laboratory instruction is considered essential because it provides training in observation supplied detailed information and aroused pupils interest. Good laboratory instructors are both great teachers and great managers. They get their students to understand the importance of the day's activities by first clearly explaining the significance of the activity.

Lab instructors are always seeking to make experiments and practical problems relevant. Infact some of the best instructors turn their experiments to practical problem solving exercises.

They spend time early in the semester preparing their students to work in groups. They assign them to work within specified roles to use one another to reach solutions, to in effect 'jigsaw' results by using different Lab groups to provide different piece of the solutions puzzles.'

They help the students, forcing students to solve problems on their own.

8.3.2 Net based Learning :

A variety of technologies are currently being used to deliver education on the Internet which include the use of the world wide web (www) for online lecture notes, news groups for collaborative discussions and class announcements, e-mail, correspondence between students and instructors. This is also interactive, video, over Internet for remote participation in classes and discussions and virtual reality for exploring three dimensional scenes, implemented in education.

The internet is increasingly being used for the delivery of educational material and distance education. Internet based learning allows students to learn at their own pace, access, the information at a time that is convenient for them and provides education to remote students that otherwise would not be able to travel to a classroom.

Some courses available in the net are delivered as a formal course with regular meeting times and places. Other courses follow a self-directed or student centred approach allowing students to learn at a time and pace that is convenient to them. Some Institutions offer courses in a wide range of disciplines and topics that lead to a diplomas or degrees. Multimedia is increasingly being used in online education to enhance the learning process. The world wide web (www) has become one of the most popular delivery methods for distance learning programme.

An education website can help learners to read, see, hear and interact with web based information. It can also allow communication amongst learners. The internet and www provide opportunity for collaborative learning, makes web based teaching possible and facilitates interactivity learning. Internet not only provides access to information instantaneously and at low cost but also provides access to the latest information as updating on line courses is much easier and relatively inexpensive.

Internet based learning includes delivery of education, and provides many benefits and limitations to both the students and each educational institution; Some of the benefits of Internet based courses to the students include :

- Flexibility to pursue education at personally convenient times.
- Ability to take time to compose thoughts contributed to class discussions on news groups or listeners (asynchronous communications)
- Ability to Interact with class mates in different locations using real time text, audio or video (synchronous communications)
- Reduction or elimination of travel cost to attend lectures.
- Wider range of students in a class (regional, national or global participation) resulting in a wider range of opinions and views shared in class discussion.

- Ability to progress in the course material at the student's own pace (self placed learning) and in order of their own personal needs (non-linear learning).

However not all students are suited for internet based education. Some difficulties or problems are there

- Lack of motivation can lead students to dropout.
- The internet methods of communication (e-mail, newsgroups, listservs) may be intimating or awkward to use for some students.
- Students may not be able to express themselves as well using the computer based communication methods as they would in either direct conversation with their professor or in classroom discussions. As a result not all questions may be asked by the students when using computer mediated communication.
- Cost of computer equipment and communications infrastructure may limit the number of students that can afford an Internet based course.
- Students will have a lack of technical support in their homes to use the software tools needed in the course. Poor technical support or tutorial help can lead to incorrect usage of software tools needed to assignments.

Benefits and limitations in providing internet based courses :

- Lower cost in electronic publication of course material compared to printing the same material.
- Ability to re-use lecture materials by simply providing links to previous electronic course modules or externally stored resources materials on the Internet.
- Ability to automatically track students online behaviour
- Ability to have automated registration and billing using commerce www servers.
- Larger number of students can take courses (not limited by geographical region)
- Automation of the student evaluations with online interactive puzzles.

Disadvantages of Net based courses :

- Relatively high cost of setting up reliable computer equipments and the technical support for their requirement.
- Requirements investment of time to learn methods and procedures.
- Instructors feel uncomfortable with technology may resist using new instruction methods.

- Lack of support for training instructors with new technology may cause instructors not to learn new technologies and methods.
- Unreliability of equipment being used can cause problems in the delivery of course over the net, which can be reflected in poor student evaluation of such courses.
- Junk e-mail – Institutions connected are flooded with useless and unwanted e-mails. This consumes a lot of the subscribers time.
- Security – As messages travel across several backbone infrastructures, there is the possibility of lacking and leakage of sensitive information over the network.
- Computer virus : Internet e-mail and downloaded files from the www have been reported to contain viruses. This demands every computer should be installed with antivirus software.
- Less serious issues discussed – Many a time the discussions are not too serious.
- Lack of support to rural people – The net is still an urban phenomenon, at least for developing countries at present. So it increases the divide between haves and the have nots.

Learning Styles :

The Internet has provided an opportunity to introduce new ways for supporting individual learning styles for students and created new paradigms for Instruction. Connecting internet to Institution is needed as a change from emphasizing accumulation of knowledge, to new ways of communicating and assisting students to learn. Some of the change occurring to education as a result of new technologies include :

1. A shift from student as a passive recipient of education to a self directed student learning.
2. A shift from classroom lectures to computer networked access to educational resources.
3. A shift from individual learning, learning to team, learning and group discussion.
4. A shift from homogeneous and stable educational content to fast changing content presented in a wide range of formats.

One of the most prominent trends in distance education is the emergence of open learning which has been defined as “a student centred approach to education which removes all barriers to access while providing a high degree of learner autonomy”.

Instead the teacher acts as a tutor facilitators and resource to assist in the student’s learning process, each student has individual preferred patters or

methods for learning which need to be recognized and supported with appropriate learning technologies. Some of example of learning styles or instruction include :

1. Visual Spatial Learning
2. Musical and Sound Learning
3. Intra Personal Learning
4. Inter Personal Learning
5. Linguistic based Learning
6. Mathematics based Learning

The Internet provides to learning a much needed interactivity. Being interactive it allows collaborative learning opportunities to the learners, who can interact with their teachers as well as with peer groups or co-learners. The check you progress exercises of the print medium could be made more interactive, since learners can now submit assignments online and can receive comments immediately too.

8.3.3 Project based Learning :

Project based learning is an instructional approach built upon authentic learning activities that engage student interest and motivation. These activities are designed to answer a question or solve a problem and generally reflect the types of learning and work people do in the every day world outside the classroom.

Project based learning is a synonymous with learning in depth. A well designed project provokes students to encounter (and struggle with) the central concept and principles of discipline.

Project based learning teaches students 21st century skills as well as content. These skills include communication and presentation skills organization and time management skills, research and inquiry skills, Self assessment and reflection skills and group participation and leadership skills.

Project based learning is generally done by group of students working together towards a common goal. Performance is assessed on an individual basis and takes into account the quality of the product produced, the depth of content understanding demonstrated and contributions, made to the ongoing process of project realization.

Finally project based learning allows students to reflect upon reflect upon their own ideas and opinions, exercise voice and choice and make decisions that affect project outcomes and the learning process in general. Combining these consideration, it may be defined as : PBL, is a systematic teaching method that engages students in learning essential knowledge and

life enhancing skills through an extended, student influenced inquiry process structured around complex authentic questions and carefully designed products and tasks.

The project based learning online approach to successful project design. Although many teachers use project based learning effectively with their students (Rather than simply do projects"), not all projects lead to learning.

PBL – online incorporates the project design methodology developed by BUCK Institute for Education. (Link to www.bie.org). This methodology yields projects that meet today's standards for accountability and teach students the academic content and the 21st century skills they need for life success. This methodology is based on Research in constructivist learning, content mastery and critical thinking and incorporates the project management skills valued by today's global industries. The focus is on helping students move through an inquiry process that stimulates their thinking, engages them in authentic tasks, and demands demonstration of mastery.

This aligns closely with recent youth development research and theory and reflects current thinking about rigor, relevance and relationship as the keys to educational reform at the secondary level. Both the these fields emphasize the importance of relationship driven classrooms where adult mentors help students engage more deeply in the learning process and develop rigorous, positive attitudes towards academic achievement.

The project based learning brings together intellectual inquiry, rigorous real world standards and student engagement in relevant and meaningful work. It is a comprehensive instructional model in which project work is central to student understanding of the essential concepts and principles of the disciplines. The different characteristics of PBL :

- Engage and build on student interests and passions.
- Provide a meaningful and authentic context for learning.
- Immerse students in complex, real world problems / investigations without a pre determined solution.
- Allow students to take the lead making critical choices and decisions.
- Connect students with community resources and experts.
- Require students to develop and demonstrate essential skills and knowledge.
- Draw and multiple disciplines to solve problems and deepen understanding.
- Build in opportunities for reflection and self assessment.
- Result in useful products that demonstrate what students have learned.
- Culminate in exhibitions or presentations to authentic audience.

Project based learning in a dynamic approach to teaching in which students explore real world problems and challenges. With this type of active and engaged learning, students are inspired to obtain a deeper knowledge of the subjects they are studying.

PBL goes beyond generating student interest. Well designed projects encourage active inquiry and higher level thinking (Thomas, 1998). Students' abilities to acquire new understanding are enhanced when they are "connected to meaningful problem solving activities, and when students are helped to understand why, when and how those facts and skills are relevant" (Bransford, Brown, Conking, 2000).

PBL is the use of classroom projects, intended to bring about deep learning, where students use technology and inquiry to engage with issues and questions that are relevant to their lives.

PBL is best defined as instruction relating questions and technology relative to the students everyday lives to classroom projects. Students form their own investigation of their own group which allows students to develop valuable research skills. The students engage in design, problem solving, decision making and investigative activities. It allows students to work in groups.

PBL provides complex task based on challenging questions or problems that involve the students problem solving, decision making, investigative skills and reflection that include teacher facilitation, but not direction. Project based learning is focused on questions that drive students to encounter the central concept and principles of subject hands on.

PBL is a different teaching technique that promotes and practices new learning habits. The students have to think in original ways to come up with the solutions to these real world problems. It helps with their creative thinking skills by showing that there are many ways to solve a problem.

PBL is an approach for classroom activity that emphasizes learning activities that are long term, inter disciplinary and student centred. This approach is generally less structured than traditional, teacher led classroom activities, in a project based class student often most organize their own work and manage in their own time PBL is organized around an open ended driving question or challenge.

- Creates a need to know essential content and skills.
- Requires inquiry to learn and / or create something new.
- Requires critical thinking, collaboration and various forms of communication.
- Allows some degree of student voice and choice.
- Incorporates feedback and revesion.
- Results in a publicly presented product or performance.
- Students are using interactive technology.

- Allows for a variety of learning style
- Accessable for all learners
- Teacher is a facilitator of learning
- Risk free environment provides a positive feedback.
- Students have ownership of their learning within the curriculum.

Project based learning – An innovative Teaching methodology :

PBL is effective when supported by educational technology. Using technology in P based methodology makes the environment more authentic to students because the compute provides access to date and information expands interaction and collaboration with others, networks, promote laboratory investigation and emulates tools, experts etc.

Benefits – Motivation, improved library research skills increase resource management skills, learning to be an expert, Stages of PBL are – Planning, scheduling, implementing and monitoring, reflecting.

PBL is more important and research oriented when students are more likely retain their knowledge gained through this approach than through traditional text book centred learning. Students also develop confidence and self direction as they move through both term based and independent work.

Summer Residential Schools :

Summer school is a school on a progress generally sponsored by a school that teaches the students during summer vacation. In elementary or middle school these are usually non academic, though some are used for remedial instruction. In high schools or universities students can enroll in classes for credit to be taken into account in their grade point like summer camp, special education, cram school. This credit is in one of two categories : remediation or advancement.

Variety of residential summer schools are running throughout different countries where guests enjoy liking and other outdoor activities. Thee are also many summer schools that forces on specific areas and skills, like academic, art and technology. In India summer Residential schools / summer valley school earlier known Riverdale High School in Dehradun. The school was first started in 1994 began its journey as a senior school in April 2001. This school has got laboratories for the science subjects and computers, separate boarding accommodation. This school believes on secularism, the emphasis lies on Equality and Fraternality. During these days, these are summer schools for every type of students, whether you would like to work on academic subjects of developing skills such as plying an instrument or sport.

Summer school-programs often involve a lot more hands on learning than in a regular class. Many residential summer school programs include spots travel, and social activities in their curricular, personal developments and leadership skills are also major themes. (For example, students at the

University of Wyoming Summer High School Institute take a personal growth seminar, in addition to their academic classes.)

In fact some summer schools are as competitive as colleges, requiring an extensive application. Private summer schools are more expensive. Residential school is one where students stay in the hostels and pursue their studies. They leave with fellow students. Some schools offer residence as an option for outstation students while in some others availing the residence facilities of the schools is compulsory. There are number of residential schools across India.

There are some residential schools which offer full time and part time boarding facilities to the students. Wood stuck was the first school in Asia to gain US accreditation. The residences provide students with a fitness gyan, indoor court, swimming pool, out door basket ball courts and a large plying field.

Residential summer schools provide academic instruction in literacy and math, Residential summer schools are more popular in England. They provide young people with an opportunity to grow and learn about themselves while also developing a new language and making new friends. Attending a summer school in England allows international students to develop their language skills as well as making new friends with students from around the world broadening their life experiences.

Example : The summer school is also a residential programme providing full boarding facilities including all meals. Skola's residential summer schools provides a safe and supportive environment. Skola provides a great compromise between learning English in London (through frequent trips and excursions) and enjoying the glory of the English countryside during summer. Students can choose which extra curricular activities to pair with their English lessons. They can choose from – Golf, Tennis, Swimming, Multi Sports, Art, Music and Drama, Foot ball.

Summer residential schools in India, near Bangalore Ooty for kids – All fan activities conducted at the Camp such as Trekking, Bird watching, Animal spolting, Fishing, Cycling, Yoga, Printing, Boating, Horse riding, western and Indian Dance, Vocal Music, Craft making, Horse riding, Camp fire, party games, Cultural programmes and Barbeque part in the evening. Here children can enjoy the experience of boarding style.

SNEH International School in east Delhi is a new age institution that provides modern IT based, diverse educational opportunities for development of generation next with special emphasis on enhancement of communication skills. The society believes in health exchange of ideas by learning from others and sharing one's own experiences with them. The students and teachers are given ample opportunities to maintain communications with other progressive schools in India and abroad.

International Boarding School in India – India is international known for IT supremacy. St. John's Matriculation Higher Secondary School is a unique institution in the field of education was founded in 1999 with the sole aim of serving the public in utilitarian way. The school has focus on

overall development of the students seeking education at our institutions, Identifying newer educational techniques to make leaving more interesting giving enough opportunities to students, to explore their creativity, ensuring the educational environment healthy.

Varieties of summer residential Schools are running in number of places from kids to University level for extensive learning programmes. Information communication technology plays a major role to explore the different schools in different places with their open distance or universal networking process.

However, residential facilities are based on the model of a first class British independent boarding school with professional staffing comfortable study bedrooms and catering of international standard. Many more residential schools are meant for children with special need and more or less for extensive learning programmes. However, residential schools are more effective and special course facilities are available which could be taken by the student during summer time only. Many number of residential summer. Course schools are available in India, with varieties of course materials are readily available. Besides, lodging Boarding Schools are maintained properly with homely feelings.

Check your progress :

Q.1 What do you mean by Innovative Practices?

Q.2 What are the difference between Lab based learning and Project based learning.

Q.3 Net based learning have some advantages and disadvantages. What are they?

Q.4 What are summer residential schools? Do you know any Summer Residential Schools in your home town and locality?

Q.5 Can you organize in your school some projects for your students? If so give two examples of these.

8.4 LET US SUM UP :

- ICT provides flexibility in terms of the place and pace of learning, time of learning selection and combinations of subjects, delivery system and interaction with experts.
- ICT has revolutionalized the life style of the people. ICT is used for quality control of in the classroom, and provides many benefits to the learners and teachers. These include shared learning and progress towards autonomous learning. Information and communication Technology is creating a new paradigm of learning.
- Television is an effective tool in the hands of education and used imaginatively. Audio video materials are used in all the fields of education for its potential, multi-various approaches. It's higher quality, flexibility and best available resources, effectiveness helped learners as well as learning system for quality.

- Computers-E-learning, net based learning satellite communication shares the resources for quality enhancement and promotion to a better teaching learning situation.
- Project based learning Lab based learning. Net based learning is pre-requisite for the learners.
- Innovative practices are very essential and effective to meet the challenges in education. In the present era more innovations are required for building up the quality dimension in education and educational scenario.

8.5 UNIT END EXERCISE

1. What is the role of ICT in promoting effective ODL syskon in India. Explain with examples.
2. Identify some innovative practices in education and how it should be implemented.
3. Discuss the strengths & weaknesses of PBL

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9

INSTRUCTIONAL TECHNIQUES AND MATERIALS IN ODL

Unit Structure :

9.0 OBJECTIVES :

After reading this unit you would be able to:

- Explain the concept and characteristics of self learning material (SLM).
- Describe importance of SLM.
- Explain steps in development of SLM in ODL.
- Identify criteria for evaluation of SLM in ODL.

9.1 INTRODUCTION:

You now understand the basis of curriculum and the foundations that shapes the learning processes in ODL from unit-3. In the Unit-4 we have understood that curriculum for ODL faces new challenges from time to time, yet there are fundamental issues that are common to any ODL programme. With time and advancement of technology, instructional material in ODL has progressed from print to iteractive multimedia, Internet-based resources and campus portals.

In this unit we would explore issues related to SLM in ODL. Concept of SLM, its difference from the textbook content, development stages and evaluation creiterias for SLM have been discussed at length in the following paragraphes.

9.2 CONCEPT AND CHARACTERISTICS OF SELF LEARNING MATERIAL (SLM):

Instruction is the means by which learning is achieved. In ODL, in absence of face-to-face interaction, teacher is built into its instructional materials. Self learning material is a material written for a specific target group in view, with a learner centred perspective, having clear learning objectives and activities structured in informal, simple and personal language. What you are reading right now is also an example of SLM.

The basic structure of the SLM would be dictated by the organizational structure offering the programme. Once curricula and syllabuses are agreed upon, detailed aims, objectives, learning outcomes and outlines will be drawn up.

The characteristics of SLM are as follows**:**

- **Self-explanatory:** It is simple, conceptually clear and direct. The material provides explanation to the learner as there is no other mediation is required.
- **Self-contained:** It has all the resources built-in within the material as the learner need not search for additional resources on his/her own. The topic under presentation is covered to the extent it is required in SLM.
- **Self-directed:** The material directs the learner as a teacher in the classroom. It teaches, guides, motivates, instructs, evaluate the learner through various devices like sturcutre, language, explanations, illustrations, diagrams, tests, and so on.
- **Self-motivating:** Learners in ODL are separated by physical distance and SLM is the only source to keep them motivated to continue their learning. SLM need to raise curiocity, eacourage the learners, raise issues and relate learning to the local situations to make learning joyful and meaningful.
- **Self-evaluating:** The learner of ODL does not have teacher to challenges him/her. The SLM through check your progress, self-assessment questions, activities and reflective writing help the learner to know his/her learning abilities.
- **Self-paced:** SLM is paced in such a way that the learner can decide how s/he want to pace their learning. The material caters to learners with different learning abilities so it needs to be structured in such a way that the learner can pace it as per their requirements.

9.3 IMPORTANCE OF SLM IN ODL:

SLM is the most important resource for the learner of Open and Distance learning. Since it acts as a teacher, guide, motivator and evaluator its role can not be under-estimated. The learner gets the entire experience of

learning through SLM only if other instructional media are not planned in the instructional design.

There is also a fundamental difference in the way SLM is written vis-à-vis text book. Table-6.1 shows the difference between textbook and SLM.

Table 9.1: Difference of SLM and Textbook

Issues	**Textbook**	**Slef Learning Material**
Focus	Subject content	Learner
Aim	Scholarly writing	Successful teaching
Market	Wider	Specific target group
Objectives	May not be stated	Clearly stated
Structure	Only part of index	Defined outside and within text also
Selfcheck Questions	Not given in text	Given within text
Language	Formal and impersonal	Informal, simple and personal
Presentation	Dense and loaded	Unpacked and loose
Threats	Not anticipated	Anticipate difficulties and resolve
Eligibility	Prior experience is need to understand	Support is provided within text so no need for prior experience
Reading	Can be read passively	Demands active response

Since now you understand what SLM is and how it differs from any text book, we would be discussing steps in developing SLM.

Check your progress -1

1. Compare and contrast writing in a textbook versus writing in the SLM. Based on your own experience try and reflect on which on helped you more in learning.

9.4 DEVELOPMENT OF SLM IN ODL:

Each distance and open learning institution devices its own mechnism for the development of self learning material. The steps may vary but the philosophical underpinnings remain the same. The SLM has to be catering to the course objectives, it has to link the print material with other resources to optimize the learning, has to have mechanism for feedback and must support the learner in the learning process.

Panda and Garg (2006) elaborates at length the models of course design and development citing examples of varied ODL institutions like dual-mode universities, state open universities and national open university-IGNOU. There are various models like personalized training, workshop generated, text transformation, wrap around text, educational advisor model, contract author-faculty model, contract author-editor model, and seminar generated SLM model. Each of these has advantages and disadvantages.

Once the course design is defined, course production covers course planning, course writing, and production of the texts or audio-visual materials depending upon the decisions with reference to the course. Course planning entails needs assessment, defining objectives, resource analysis, alternatives and selection of the appropriate resource, development and trial, self and external evaluation and feedback of the stakeholders.

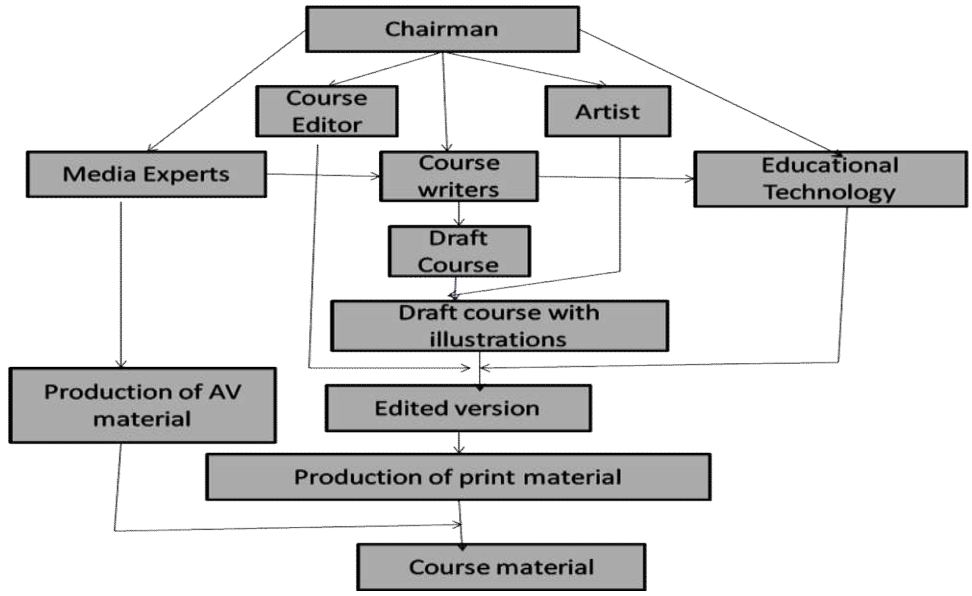
Assuming that all the necessary decisions have been made, the writers need to be hired for the development of SLM. The structures, unit-block divisions are prior decisions. As you read this text, it was written after the overall structure of the course was defined by the authorities at the Institute of Open and Distance Learning. The writer was called in for a workshop as an outcome of which this unit got written.

Table 6.2 elaborates the pointers to the development stages for a ODL course. There are three levels before the SLM actually reaches a learner i.e. you. SLM development processes fundamentally have three stages-planning, development and production including revision.

Table 9.2: Stages of Development of Course in ODL

Course Planning	**Course Development**	**Course Production**
Needs assessmet	Arranging topics	Editing
Defining objectives	Unit outlines	Layout
Resource analysis	Course writing guides	Printing
Resource selection	Decision about writers	Despatch
Development and trial	Writing texts	Revision
Self and external evaluation		
Feedback		

Important issue to be kept in mind while developing SLM is instructional decisions likebook - audio visual - practical combinations. Depending upon the ODL course requirements, decisions about to what extent material would be delivered through book/print mode defines coverage and length-breath of the text.



(Source: Harichandan, 2008: 56)

Graph 9.1 Stages of Course Material Production

Graph 9.1 illustrates the stages of course material production by the course team as suggested by Harichandan (2008) which clearly indicates the process for making of SLM.

Assuming that decisions have been made and you are asked to create SLM than the steps in writing of course material will be as follows.

- **Structure** of the unit is the first thing you should make. It should include teaching topics/learning tasks.
- **Introduction** of the unit links the learner to the previous units and it is like the 'good morning' sign by the teacher in the face-to-face classroom. Introduction has structural, themetic and guidance components.
- **Objectives** follows introduction which should be expressed in behavioural terms. Ojectives guides the writer as well as learner and also helps in devising assessment techniques.
- **Main body of the unit** will have sections and subsections. Concept mapping, organizing the unit and presentation are integral part of any unit. Activities and check your progress are essential elements mid-way as you can examine yourself if you are on right track.
- **Assessment** in form of self-check questions, model answers or possible answers, activities, exercises, assignments (essay-open, project, practical questions, short answer questions, objective type questions) need to be decided depending upon expected learning outcome. The assignments can be teacher marked assignments (TMAs) or computer marked assignments (CMAs).

- **The conclusion** or ending of the unit demands recapitulation, summary, reinformcement, besides glossary of terms, references and bibliography, suggested reading and model/possible answers.

Once the unit is written by in-house or freelance writers, ODL institutions undertakes process of production of print material. Revision of the SLM is also an important area for keeping the course in tune with time. Many institutes undertake peer assessment, trials and formative evaluations of SLM prior to producing them in large quantities. Decisions in terms of page sizes, lay out, paper quality, proof reading, graphics and styling, and so on would impact the final outcome in form of course material.

Check your progress - 2

How is developing of course is different from developing a SLM unit? List down models and stages for both of them from the paragraphs you have read so far.

9.5 CRITERIA OF EVALUATION OF SLM:

Evaluation is an essential process for any educational endevour. Ongoing and term end evaluation forms integral part of any academic programme. While SLM has built-in ongoing evaluation component, evaluation of SLM itself is also an essential process for the ODL institution.

If you read the characteristics and development of SLM in the previous paragraphs, it in a way suggests you parameters for evalution of SLM. Following issues can be kept in mind while evaluating SLM of any ODL institute.

- **Language:** SLM has to be written in learner friendly language. While the attempt is to communicate, the academic rigour can not be compromised.

- **Educational process:** Any SLM has to define educational processes and product clearly. The learner should be able to understand what is expected out of him/her at the onset and at the end of educational interaction through SLM.

- **Learner capabilities:** ODL institute has to invest into examining and maintaining academic standard of the course which is in tune with the expected learner standards. If the course is 'high' level than the learners might find it difficult and if its low pitched than the learners might loose interest and the institute may loose credibility.

- **Delivery management:** The role of SLM in the overall course needs to be examined. If there are other instructional materials besides print than the integration of all of them is an essential requirement at course planning and design level.

- **Assessment and evaluation:** SLM must constitute strategies to monitor learner progress. SLM that lacks clarity in terms of learning outcomes and achievements can not be of use to the learner.

Kumar (2000) elaborates evaluation criteria for self instructional material at length and provides two main categories for evaluation- academic and physical. Physical aspects include printing-layout-get up, durability and size of the book. Academic aspects cover selection-organisation-presentation of content, language, illustrations, exercises and assignment.

Check your progress -3

1. Take any textbook chapter and try to convert it into SLM. What is your experience? Share it in your contact session.

9.6 LET US SUM UP

In this unit we have discussed : Self learning material which is learner prespective. It is important for ODL system because it is self explanatory, self motivatering & Self evaluating. The characteristics & development of SLM is explained. Criterial of evaluation is also given. So now you can also evaluate your self learning material.

9.7 UNIT END EXERCISE :

Q.1 What are the exiteria of evaluation of SLM? Give your comments on any of your SLM on the basis of the criteria of evaluation.

Q.2 What is SLM? How it is different from textbook? Explain the stages of development of course in SLM.

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10

LEARNER SUPPORT SYSTEMS (LSS)

Unit Structure

10.0 OBJECTIVES

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

- explain learner support services;
- analyze characteristics of distance learners;
- discuss the significance of support services in DE settings;
- list various types of support services provided to learners.

10.1 INTRODUCTION

Learner support systems are the major components of distance education (DE). Although support services are not compulsory to avail for all learners but those who seek help from the institution in any form will be treated as support services. DE institutions offer support services to learners based on their demands, requirements, and necessity. They

require support services to understand the DE system and its various functions starting with admission to certificate distribution. Support services in many occasions stand to reduce learners' isolation from the DE institution. It encourages learners to go for life long learning. Support services are broadly of two types; academic and non-academic. In the case of academic, the services are provided only in teaching-learning domains whereas, non-academic supports deal with learners' personal problems, updation of information about the institution, and any changes of the institutional functions. Academic support assists learners to develop their cognitive, intellectual, and knowledge on a set of courses. Non-academic support which is ordinarily known as 'counselling' deals with the affective and organizational aspects of learners' studies.

This unit explains you why learners need support services from DE institutions and how they are benefited from these services in their learning activities. Further, it analyzes why support services are not compulsory to all learners. Expositions to various support services provided to distance learners by the DE institutions across the countries are highlighted.

Support services are offered to learners because they are of three types. First, those who join in the DE institution after a long gap of their academic studies due to some or other reasons. Second, those who wish to complete a set of courses/ programme while doing their job, may be in a distant place. Third, those who passed from face-to-face educational institutions and join in the DE institutions for their higher studies. In either of these cases not even a single learner is quite familiar with DE institutions to its full form, and may not be knowing the patterns of education that DE institution provides to its learners. Hence, learner support services are offered to learners to avail and understand the various operational activities, assessment and evaluation procedures of the DE institution.

10.2 NEED FOR THE LSS IN DISTANCE EDUCATION

The term DE is defined in many ways but the essence remains same, i.e. "variety of education programmes and activities…..(where) the learner and teacher are physically separate but…. efforts are made…. to overcome this separation using a variety of media" (Belanger, F. & Jordan, D.H., 2000, P.8). Since this is a true fact and universally accepted phenomenon, it implies learners need support services desparately and it is not superfluous to consider support service is the principal element in the Open and Distance Learning (ODL) system.

There are plenty of reasons why learners require support services from the DE institutions. A few are listed below out of many.

i) learners are new to DE institutions

ii) learners are having different geographical and educational backgrounds

iii) learners have other responsibilities besides pursuing courses in DE institutions

iv) learners are not meeting their peer groups often as it is found in F-2-F educational institutions

v) learners are interested to study at their own time and space independently but needs some supports in between of their studies

vi) so on and so forth. You may add a few more.

But all these factors listed above and those yet to be added further devised into three main categories. These are;

a) Practical reasons for learners support

b) Theoretical reasons for learners support

c) Moral reasons for learners support

Practical reasons for learners support

The uniqueness of distance learning demands learner support services in an urgent manner. This is so because when learners took admission in the DE institutions they find themselves in an unfamiliar situation, where there are no teachers who can teach them directly as they had been availed in the classroom situations of face-to-face educational institutions. Further, they are expected to work independently on the self learning materials or/and online courses in the absence of a teacher. Some of the learners astonished and cannot gather confidence on their capacity to learn through unfamiliar learning packages (i.e. self learning print materials) that are sent to them.

In addition to these, learners' retention in DE institutions are become a crucial issue for all DE institutions/universities across the globe. This is so because, their dropout rate in DE courses are higher than the face-to-face educational institutions because of various reasons (academic, non-academic, or both) which we will discuss later in this unit. These are some reasons seek supports badly from the Open and Distance Learning system.

Theoretical reasons for learners support

One among the theoretical reasons required for support services is learners' isolation from distance educational institutions. They do not only feel isolate from the institution, but also from their peer groups, and teachers. Thus, studying through ODL is really an isolated experience for them. Lack of academic socialization often brings reluctance to continue the opted courses till the end. So in this case, to remove isolation from learners and establish an amicable healthy study atmosphere, DE institution should do the induction programme immediately after their admission in the courses. They need to familiarize the DE functions and its various operational aspects. They need to be guided towards the self

directed learning materials, the instructional package, and examination pattern. In these ways learners receive supports from the DE institutions.

Moral reasons for learners support

Morality becomes a crucial issue in all fields and methods of study. It is always seen as a prescription rather than description in any contexts. In teaching learning domain at global and distance learning in particular experiencing ethical difficulties of learners are eternal and ubiquitous. For example, there are learners who fall in difficulties like divorce, marriage ceremony, death of a kin, illness, etc.. In these cases learners are struggling for the intellectual demand of a course. To help those learners sometimes institutions need to facilitate them with some sorts of counselling sessions, and give them flexibility to complete their courses as per the institutions norms and conditions. In this regard, it is demanded that every DE institution should have clear guidelines, policies, and procedures to help these learners in this juncture.

From the above analyses it is asserted that learners in DE need support services for various reasons stated above. However, it is important to note that due to the characteristics of distance learners they even seek support services from the DE institutions/ universities.

10.2.1 Characteristics of Distance Learners

To identify the characteristics of distance learners we must distinguish them from F-2-F educational institutions. The differences lead to suggest who are the distance learners and what are their characteristics.

(Table 1) **Learners: F-2-F vs. DE institutions**

F-2-F educational Institutions	Distance educational institution
i) Learning is a full time and major activity ii) The learner performs one role, i.e. learning from the institutions/universities iii) Member of one organization, i.e. one educational institution iv) Learners must have a particular age group v) Learners can have often peer group interaction vi) Learners have easy access to the institutional resources (e.g. library, computer lab, science laboratory, etc) vii) Etc.	a) Learning is a part time activity b) Learner performs many roles, e.g. in the office as an officer, social being, club member, family member, etc. c) Member of many organizations, such as, family, work place, etc. d) Learners are adult in majority without belonging to a particular age group e) Peer group interaction does not happen in frequent f) Learners stay at a distance, hence no direct access to institutional resources g) Etc.

A learner in the F-2-F educational institution has to attend classes regularly whereas a distance learner devotes his/her studies in part time basis. Distance learners in most of the cases returned to their studies after a long gap. They belong to many institutions such as; work place, home, club, social services, etc. but a F-2-F learner is not bounded with all these commitments. In face-to-face situation s(he) identifies himself/herself as belongs to a particular educational institution where he/she is pursuing his/her studies. Thus, a F-2-F learner often interact with their peer groups, teachers and use the institutional resources regularly whereas, a distance learner is one, since residing in a distance place, deprive from all these facilities--though not in the complete sense.

There are different categories of learners opt for distance education. They are;

a) those who could not go for higher education just after schooling but wish to pursue higher education at a later stage

b) those who had higher education sometimes back but want to continue their education to enhance their knowledge

c) those who have discontinued their studies for some or other reasons in the past but realize to continue further

d) those who want to make their learning should be a perennial or lifelong one

e) those who are having social, economic, and geographical barriers to attend the regular classes of F-2-F educational institutions

f) those who wish to continue their studies in parallel with their daily commitments and responsibility, e.g. office, home works, etc.

g) those who cannot attend the regular classes due to some physical constraints, e.g. physically challenged learner.

The above descriptions are reflected the nature and characteristics of distance learners. But most importantly these learners are divided into three categories. The first category refers to those learners who have confidence in their ability to carry forward their studies independently without seeking any assistance from others. They think that they do not require any counselling session till completion of their programme. However, it is observed that just having confidence in their ability to achieve success without the help of a counsellor need not necessarily lead to success. At a later period, in spite of being very confident in their abilities and capabilities may require help. DE system even arranged timely help for them when they require. What sorts of support services DE institutions provide to the learners will be discussed in the later part of this unit.

Learners belong to second category in true sense require help from the institutions in various forms. Such as; they expect someone who can guide them to solve their personal and academic problems, encourage them to

continue their studies, gather confidence in them, etc. In precise, they need similar kind of F-2-F situation, if not exactly the same. They seek a platform where they can share their problems with the counselor and receive help directly from him/her. Further, they wish someone's regular guidance to retain them in their own courses and help them to complete their programme within the stipulated time prescribed by the DE institutions.

The third categories of learners are those who placed themselves between first and second category. They are basically observatory type learners, who do not have much query regarding their studies and personal problems. But if they encounter with certain unavoidable problems and face some absurd situations, they do not hesitate to interact with their counselor as well as their peer groups and seek the proper guidance to overcome these problems.

According to Simpson (2000) to be a distance learner, one needs the following abilities.

Intelligence:	Ability to deal with job pressures
Numeracy:	Ability to handle demands of family
Literacy:	Ability to manage the paper work
Motivation:	Ability to create a good study environment
Seek Assistance:	Ability to prioritize amongst study demands
Self-confidence:	Ability to accept constructive criticism
Exam anxiety:	Ability to handle stress of being assessed

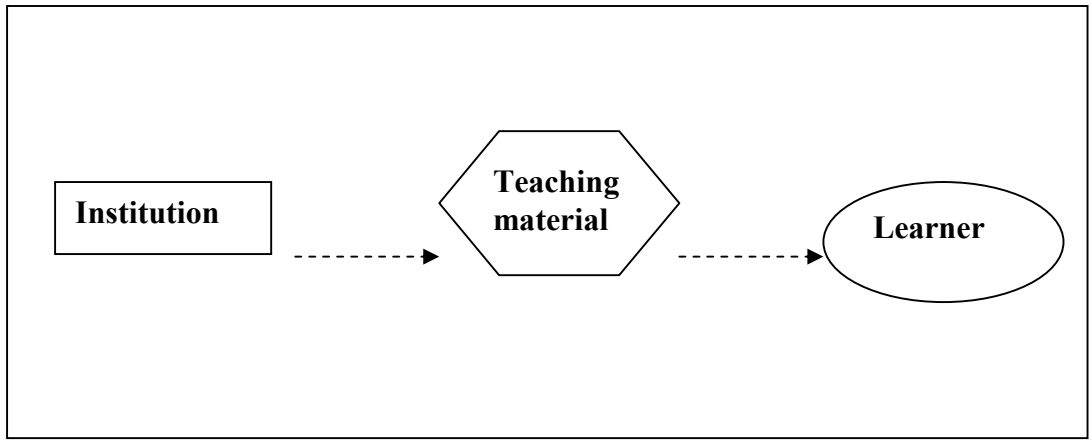
Check your progress - I

Who are distance learners?

10.2.2 Nature and Characteristics of Distance Education

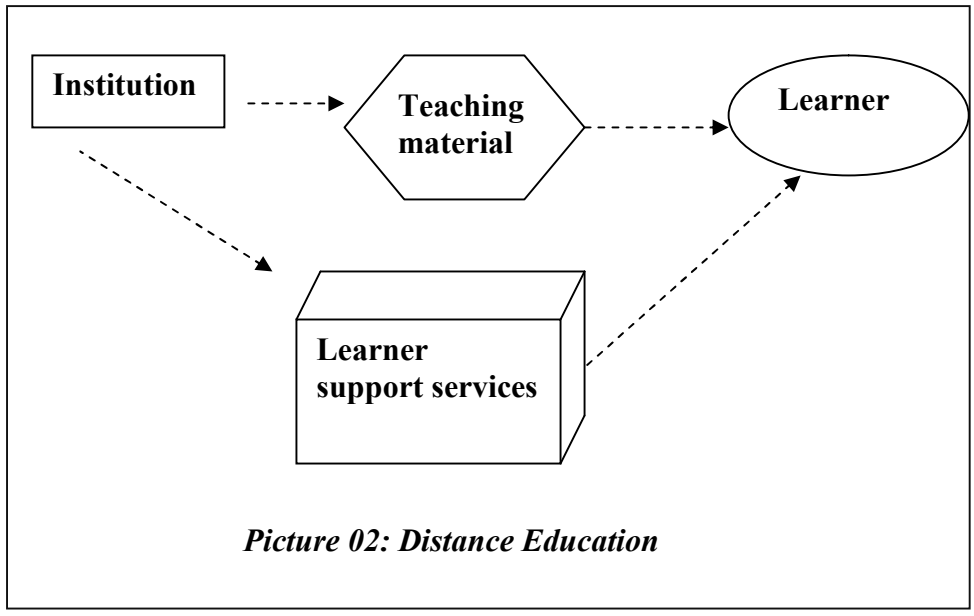
The term 'distance education' is known in different names, such as; correspondence education, open learning, home study, off-campus based study, flexible learning, resource based learning, etc. (Lockwood & Gooley, 2000). But all these names are compressed and further divided into three major divisions. These are; correspondence education, distance education, and open learning.

Correspondence education: This is a teaching-learning situation where learners are found in a distant place, there were no face-to-face interaction existing between teachers and learners. Learners receive the study materials from the institutions through postal services. In this case, print is the only medium of instruction and printed lessons are the only source for the learner to learn. See the graphical presentation of picture 01.



Picture-01: Correspondence Education

Distance education: In this case, learners are staying in distance places and continue their programme of studies in Distance Education (DE) institutions. It is teaching-learning situations where along with print medium various technological media are used to deliver study contents to learners. These media are; radio, television, telephone, audio and video cassettes, computer, mobile, and may be a few other electronic media. In this situation, two-way interaction takes place between learners and tutors both in synchronous and asynchronous forms because of the media intervention. Learner support services play a major role in this situation. See the graphical presentation of picture 02

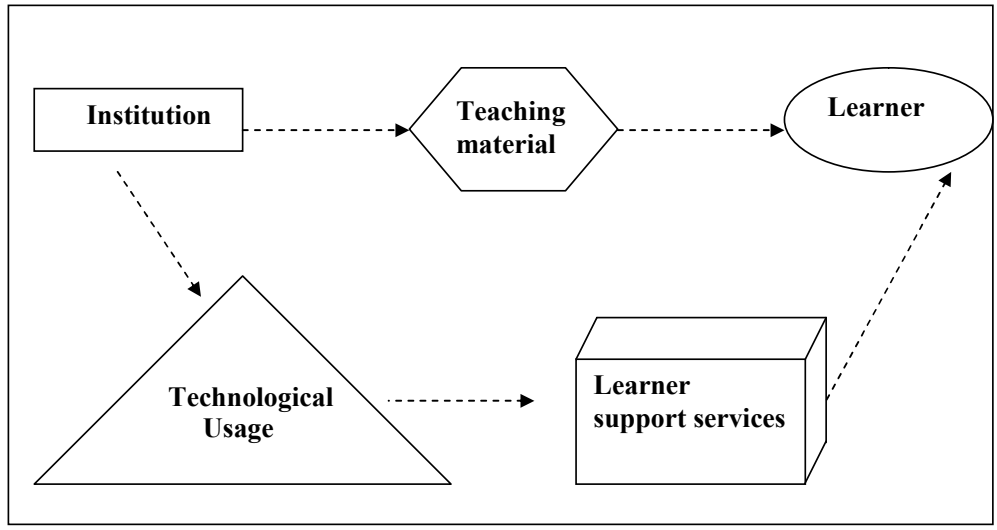


Picture 02: Distance Education

Open Learning: Open learning is a philosophy rather than a method of distance learning. On the account of Perraton (1997), "Open learning as an organized educational activity, based on the use of teaching materials, in which constraints on study are minimized either in terms of access, or of time and place, methods of study or any combination of these". As it is a

philosophy in its approach, it suggests removal of the barriers and restrictions from learners in contrast to the conventional educational setup. Open learning is opening up learning opportunities to a wider range of people and enabling them to learn more efficiently, effectively and productively.

There are some relaxations found in DE in relation to learners' admission in the programmes/courses, age and qualifications, place and duration of study, selection of courses and examination patterns. There is no upper age limit to take admission in programmes except a few professional programmes, such as Nursing, Engineering, etc. There is no higher percentage of marks required to enroll in a particular DE programme as like in F-2-F educational institutions. Regarding place and time of study is learner dependent instead of teacher guided. Since DE institutions offer plenty of courses by assessing learners demand in the educational market, they can choose any of the courses that suits them. Thus, they are not forced to take a course along with another course which is of not their interest. They can choose the courses of studies according to their desires and preferences. At present state, there are various evaluation patterns available on an offered programe by the DE institutions. For example; 'on-demand examination' where learners can ask the Institution to appear for the examination of his/her programme at any time. 'Online examination' is also available to the learners where they can sit at their home with all the necessary technological equipments and can appear the examinations. Hence, writing examination on papers is not the only way to appear the examination and receive the certificate. With these features open learning is familiarized among learners across the globe. See the graphical presentation of picture 03.



Picture-03: Open Learning

10.2.3 Characteristics of Self-Learning Materials

One among the other reasons for the need of learner support services is characteristics of self- learning materials (SLMs). Some learners may not familiarize with SLMs, hence the learning packages that they receive from the DE institutions are surprised for them and often creates tension to them. Some of them may find it difficult to handle the SLMs which are enabled with activities, and assignments. To treat the SLMS as it is expected, learners require study skills, and these can be provided through human and technological support.

Although it is practised that SLMs are prepared by inserting teacher in the texts in order to generate classroom situation for the learners, but it has its own limitation which can not be ruled out. The limitations arise may be because of involvement of various people to contribute the units for a programme, may be problem lies with the content editor, instructional designer, curriculum planer, and so on. Since limitations cannot be denied, therefore SLMs alone cannot serve learners to study independently without some supports from the counsellors and the institutions. Hence, learner support services are the indispensible components in the distance learning scenario.

Just by reading the SLMs learners may feel bore and in many times while studying the subject contents they may come up with some ideas and a few questions. Until unless these questions are answered and ideas are shared with others they may perplex and perturb in their mind. As a result, they could not concentrate in their studies, disorient from their subject of studies, and feel isolation from the institutions. In many occasions, they find themselves alone. These circumstances are further demanded support services to learners as and when they require while pursuing their programme in DE institutions.

Check your progress - II

1. **What is open learning?**

10.3 TYPES OF SUPPORT SERVICES

There are two types of support services available to distance learners.

- Academic support services, and
- Non-academic (administrative) support services.

Academic supports are concerned with the subject of study and the issues related to academic matter. For example, how to write assignment-responses, is it necessary to do all the self assessment questions while studying the unit, etc. Administrative support on the other hand seeks update information on institutions, institutional arrangements, examination procedures, admission fees, etc. Let us discuss these two types of supports in an elaborate manner.

Academic Support

Academic supports are indispensible for distance learners in distance learning settings. These supports are provided to learners in different stages of their studies. These stages are;

- Pre-entry stage
- Entry to the course
- During the course
- Examination
- Post-course stage

Pre-entry stage*:* In this stage, learners in majority are not clear themselves what they want to do. Hence, they need the guidance about the courses offered by the institutions, entry requirements, application procedures, a little bit about the institution, fees for different programmes, distance education teaching-learning procedures, the recognition of their degrees, and the employment opportunities after completion of the programme.

Entry to the course: After receiving the study materials in packets from the DE institutions on his/her subject of studies, a learner needs further help to know how to read the Blocks, what is to be done with these units, the date of submission of assignment responses, addresses of the nearest study centre, how many assignment responses have to submit and where, how to manage the study time to complete the programme, etc. For the clarification of all these issues, a learner desperately looks for support services. All these information for which a learner wants support services are available in the ***programme guide*** which is also been sent to the learner along with the study materials to their communicational addresses. Thus, it is stated that though the programme guide is meant for counselling purposes yet learners need ***induction programme*** to understand the issues pertaining to academic domain.

During the course: It is always an anxiety for a learner to know his/her academic progresses. Thus, he/she may expect the grade and tutor-comments on his/her assignment responses. Thus, it is suggested that a good tutor is one who motivates, guides and instructs learners for the benefit of their learning activities. A tutor should not discourage and disorient learners. Sometimes learners fail to understand the subject content; hence they interact with the counselors for correct guidance. In many cases, learners are encountered with some unavoidable problems, and thus some of the academic activities get delayed, e.g. late submission of assignment responses. In this regard, they need the advice from the counsellor. In short, learners may want to discuss about their progress, assignment grades, field visits, seminars, practical results, strategies of learning from media, and so on with the counsellor.

Examination*:* In this stage, learners do not only seek the information regarding their dates of examinations, information about the hours of examination, but also the revision processes and the methods to prepare for the examination. Some learners ask for revision strategies and even requested the counsellor to conduct a demo examination. In this situation, a counsellor explains the ways of organizing revisions, question types and answering strategies which prove successful at examination.

Post-course stage*:* After the completion of their programmes and even after receiving the certificates still learners need support services from the institution. Their query remains in this directions---they seek advice on their educational career and what will they do next. In this situation, an academic counsellor should guide the learner in correct path by asking on his/her needs, abilities, and aspirations for future. Thus, learner support never ends with the examination only, it lingers much after the examination, and this is known as 'pre-course stage counseling'.

Check your progress - III

1. What are the support services required by a distance learner in the time of examination?

Administrative Support:

The nature of this support is of providing update and correct information and advice to the desired learners about any aspects of their studies. Administrative supports are demanded by the learners because of the rapid development in various academic programmes, fast expansion of the institutions, practices of new initiatives, and so on. With all these activities at one stretch there may be situations where earlier practices are drastically changed and these information have not communicated to learners because of some or other reasons. There are learners who are even confused to locate a particular information in the institution WebPages. Hence, not to refrain from correct information learners keep themselves update in DE context, and in particular to their programme of study. There are three features figuring out when we discuss administrative support to distance learners. These are; informing, commending, and exploring.

Informing: It is the process of giving accurate, timely and appropriate information to the learners about any aspects of their studies. For example, 'on-demand' examination is available round the year in your programme. So if you wish you can ask at anytime to the institution.

Commending: While informing a learner on a particular issue, you may give enough guidance- but one should be most appropriate for him/her. For example, a learner asked to his counsellor, I would like to do Master in Business Administration (MBA) because I am doing marketing in a small scale industry. Can you help me what course I should prefer? In this situation the counsellor may inform all the courses available in the MBA programme. But certainly suggest him that it would be better if you choose 'marketing' course, since you have little experience in marketing

you will be benefited from this course immensely in comparison to other courses.

Exploring: It is the process of helping learners by clarifying the options open to them in which a way to enable them to come to a decision for themselves. For example; I am sorry to hear of your parents' accident. Let's talk it through and see whether it's best to cancel the examination now or carry on with the tasks.

10.4 INSTITUTIONAL ARRANGEMENTS FOR LSS

Institutional arrangement for learner support services are broadly categorized into three sorts. These are; offline arrangements, online arrangements, and broadcasting facilities. Since distance learners are heterogeneous in character and scattered across the globe, depending on their geographic, economic, and social conditions, they can avail support services from the institutions from the below mentioned modes whichever is convenient and comfortable for them.

10.4.1 Offline Arrangements

Offline arrangements for learners' supports are listed below; those are regulated by DE institutions.

- Headquarters
- Regional centers
- Study centers
- Sub-study centers
- Programme study centers
- Work centers
- Information cell
- Counselling by letter
- Counselling by handbook
- Counselling by audio and video cassettes

DE institutions do not require a huge campus for catering education to mass population in a country in contrast to F-2-F educational institutions/universities. This is so because learners in DE are taking admission by staying at different parts of the countries. They are independent and autonomous learners, hence they do not require to attend the regular classes as it is practised in the F-2-F situations. But certainly they need some support services for their academic activities, and make availability of these facilities DE institutions open its 'Regional Centers' and 'Study Centers' in various suitable places of a country. Learners can

receive counselling (both academic and non-academic matters) at the study centers. They can submit their assignment responses and get feedback of their assignment responses for improving their study. They can access the library available at study centre. Besides these facilities, they can watch teleconferencing sessions regularly on their programmes. They can also interact with their peer groups and may resolve some of the problems pertaining to their study.

At the regional centre, learners can take admission and receive their study materials. They can get update and correct information regarding their studies and institutional changes. A few seminars conducted there for the benefit of learners. Once learners registered in DE institutions, Regional centers of their areas organize 'induction' and 'orientation' programme for them. These programmes help learners to understand the methods of DE and its various functional subsystems. Learners turn to their respective regional centers for their practical works which is an element of their programme of studies. These sorts of infrastructural facilities institutions provide to the learners.

Apart from these facilities, learners also avail the support services from the sub-study centers, programme study centre, work-centre, special study centre, information cell. A ***sub-study center*** is sometimes established within the area covered by a regular study centre. It provides academic supports to those learners who cannot conveniently avail to receive such facilities at regular study centers. Thus, the sub-study centers remain attached to the regular study center and functions as a part of it.

IGNOU has established ***programme study centers*** for some of its programmes, such as, engineering, health sciences, etc. to facilitate support services to learners. In these centers intensive practical works are carried out. In the work center basically the focus is on the practical components of the programme, and these are to be practiced there. Practical/field sessions are held in the work centers. ***Special study centers*** are located in the institution dedicated to the cause of a given disadvantaged group. IGNOU keeping in mind the learners' requirement opened an 'information cell' located at the headquarters at New Delhi. It provides further information if any problem remains at any stage of their study activities, they can come to the headquarters and receive the update information on their query.

Apart from these services, learners can also available a few more offline supports from the institutions. These are; F-2-F counselling, group counselling, counselling by handbook, and counselling by letter. Let us briefly discuss about all these services. In F-2-F counselling situations, there are interactions take place between a counsellor and a learner. But in group counselling, more than two learners should present at one room. They introduce themselves and discuss a subject content issue in the presence of a counsellor. Counsellor regulates them if their discussions are not focused on the pre decided issue.

Many DE institutions across the country have developed counselling materials in handbook form. These handbooks are usually aimed to learners at particular points in their careers. For example, the text from UKOU 'Taking Off' is designed for pre-entry learners and there is a similar text called 'Balling Out' for learners who are withdrawing from the course. The good practice of DE institutions is to send the programme guide/ handbook along with the study materials to the learners. If a learner goes through the handbook he/she may not require any additional support to understand the programme of his/her study. These handbooks are often written in an interactive style with encouragement to learners in their studies. Counseling by letter is an interactive method of support services via post construed by the counsellor and a learner. In this case, learner writes his/her query and send to the counsellor and counsellor send back to the learner with proper advice/suggestions.

One of the offline arrangements for supporting learners may be considered as counselling by audio and video cassettes. Along with study materials learners are also receiving audio and/or video cassettes for the extra support in their programmes. If they bored by just reading the printed materials these arrangements can help them not to disorient in their studies. They can even listen from audio cassettes at any time and also view the video disks as and when they wish for.

Check your progress - IV

1. List the offline arrangement support services provide to distance learners by DE institutions.

10.4.2 Online Arrangements

Listed below the 'online arrangements' made by the DE institutions to provide support services to learners.

- Counselling through internet
- Counselling by interactive video disk
- Use of mobile devices
- Counseling by telephone

Today's world is the technology world. There are no such situations where technology has not yet intervened. Somehow or other technology plays a major role even in DE setup. The internet as a counselling tool for distance education programmes is largely popularized among majority of learners. However, the internet service requires the basic setup, such as computer, internet connection, etc. Due to the global market competition computer parts are available at affordable prices. Thus, learners at large number prefer to use internet to remain update themselves in all contexts of their studies, and thereby day-to-day activities.

Internet based counselling for distance learners are caused due to the following tools.

E-mail: It is a medium provide both synchronous and asynchronous communication between and/or among learners and counsellors. Instead of writing letters to the counsellor and waiting for the reply for the long time, learners can communicate to them their query and may receive the response immediately without a long waiting. This tool helps learners to receive the feedback on their assignment responses. Learners those are 'shy' and 'quite' nature are able to communicate to the counsellor in a comfortable and private atmosphere.

World Wide Web (www): This tool can be used to collect and accumulate all the relevant study materials for the learners. It gives the facilities to upload and download the texts, programme guide books, slide shows, lecture presentations through You Tube, etc.. It is used basically for one-to-many correspondence, i.e. a counselor can guide more than one learner at a time. Learners can ask frequent question by using this facility. They can even upload the update information for their peer groups.

Online Discussion*:* This facility allows learners to interact with the counsellor at different terminals. Counsellor can announce the contact time much in advance, and learners can log on in that time and discuss the questions among the peer groups. Counsellor acts as a chair person to moderate the discussions take place among learners. It is known in bulletin board systems as the 'chat room' which facilitates one-to-one and one-to-many conversation respectively.

Virtual Conferencing: This is a platform where many-to-many communication is possible. In other words, group interaction is organized by using this tool in the DE institutions. In this case, counsellor and learners present at their own places. Through computer networks they can connect with each other, but the necessity is a camera and that should be attached to the computer. Once the setup is made, all the participants can be seen on the monitor whenever and who ever they log in. They can hear voices from others and can put their opinion in voice form. In this way learners can take the advantage of online facilities provided by the DE institutions.

Learners can use interactive video disk for their support services. In these disks all the relevant information which are supposed to be required are feeded in it. Hence, opening in a computer it guides a learner in the correct directions and tells the processes these need to follow for a particular purpose, let's say, preparing for the assignment responses. Mobile devices are used for support services, where all the update information and necessary changes made either in their programme or administrative standpoint, it is informed to them through SMS or MMS provided learner should registered their mobile numbers while taking admission in the DE programme. Sometimes if the date of a particular even is postponed, it is informed to the learners through SMS. Telephonic counselling is still running as support service to learners provided by the DE institution. In

this case, learners can directly ring to their counsellor or concerned person to clarify his/her doubts, queries. Thus, it is helpful for learners to receive immediate response without any further delay.

10.4.3 Broadcasting Facilitates

Learners also avail the broadcasting facilities from the institutions in the form of support services. These facilities are;

a) Interactive radio counseling

b) Teleconferencing

c) Gyanvani

d) Educational channel 'Gyan Darshan'

DE institutions are arranged these facilities for learners to avail the support services in their academic studies. Interactive phone in counseling through All India Radio (AIR) started in May 1998 at Bhopal, in India. In this case, the subject experts remain present in the AIR studio at prefixed hours, the learners can ask questions by dialing the desired numbers of the studio from their end, and experts answer these questions through online which can be heard by other listeners. In this way the live interaction takes place between the counsellor and the learners. The purpose of teleconferencing is to provide academic support to the learners scattered all over the country. Subject experts make presentation at the video studio at a prefixed schedule while learners remain present at their location to watch these sessions. Learners can see the experts on a TV screen and interact with them through telephone. Gyan Vani is an educational FM Radio network operating through several FM stations in India. The main purpose for providing this facility is to support learners in their studies when they are far away from the institution. They can listen the radio at their own leisure time and understand the study content delivered through Radio. Gyan Darshan is an educational TV Channel launched in January 26, 2000 in India for the benefit of large segments of economic and geographical deprived learners. Indira Gandhai National Open University (IGNOU) is the nodal agency for Gyan Darshan- which in effect is a cooperative venture involving host institutions and other organizations. This channel brings into learners' home interactive lessons in various subject matters like, mathematics, English, computer, and so on. It includes programmes for elders as well as for school children. In these ways DE institutions/universities arrange support services for the learners.

10.5 FACTORS AFFECTING THE PROVISION OF SUPPORT SERVICES

There is no fixed pattern of support services found in DE institutions/universities across the countries. This is so because to provide support services or to facilitate support services to distance learners as and when they required is altogether a challenging tasks. In DE, there are varieties of programmes offered to learners. Since there are different

programmes, learners seek different types of support services, for example; Master Degree in Library science programme certainly differs from Master of Arts in Hindi Programme, again it differs from Computer Application programme. Hence, according to the nature of programme the support services get differ. In addition to these factors, distance learners are heterogeneous in character and in most cases it is found that there is a mass enrollment in an academic programme. Thus, providing support services on time to all those learners require; the aims and resources of the organization, the instructional package employed, the delivery form, the target learners and their socio-economic educational culture, their geographical situations, etc.. All these factors are responsible to contribute to the development of learner support services systems. This further adds to the media intervention in support services by claiming that availability and accessibility of media in learners end is an important factor to benefit form media services offered by the institutions to the learners.

10.6 LET US SUM UP

Support services are provided to learners because they are heterogeneous in character and stay at distance from the institution. Learners in DE institutions are of three types. First, those who join in the DE institution after a long gap of their academic studies due to some or other reasons. Second, those who wish to complete courses/ programme while doing their job, may be in a distant place. Third, those who passed from face-to-face educational institutions and join in the DE institutions for their higher studies. In either of these cases not even a single learner is quite familiar with DE institutions to its full form, and may not know the patterns of education DE institution provides to its learners. Hence, learner support services are the most crucial components to assist learners to pursue their studies and to retain them in DE institutions.

There are plenty of reasons why learners require support services from the DE institutions. A few are listed below out of many.

a) learners are new to DE institutions

b) they are having different geographical and educational backgrounds

c) they have other responsibilities besides pursuing courses in DE institutions

d) they do not meet their peer groups often in contrast to F-2-F educational institutions

e) they are interested in studying at their own time independently but needs some helps in between of their studies

f) you may add a few more reasons for the above mentioned purpose.

Different categories of learners opt for distance education. They are;

i) those who could not go for higher education just after schooling but wish to pursue higher education at a later stage

ii) those who had higher education sometimes back but want to continue their education to enhance their knowledge

iii) those who had discontinued their studies for some or other reasons in the past but realize to continue further

iv) those who want to make their learning should be a life long one

v) those are having social, economic, and geographical barriers to attend the regular classes of F-2-F educational institutions

vi) those who wish to continue their studies in parallel with their daily routine, e.g. office, home works, etc.

vii) those who cannot attend the regular classes due to some physical constraints, e.g. physically challenged people.

According to Simpson (2000) to be a distance learner, one needs the following abilities.

Intelligence:	*Ability to deal with job pressures*
Numeracy:	*Ability to handle demands of family*
Literacy:	*Ability to manage the paper work*
Motivation:	*Ability to create a good study environment*
Seek Assistance:	*Ability to prioritize amongst study demands*
Self-confidence:	*Ability to accept constructive criticism*
Exam anxiety:	*Ability to handle stress of being assessed*

Academic Support

Academic supports are indispensible for distance learners in distance learning settings. These supports are provided to learners in different stages of their studies. These stages are;

- Pre-entry stage
- Entry to the course
- During the course
- Examination
- Post-course stage

Offline arrangements for learner supports are listed below, those are regulated by DE institutions.

- Headquarters
- Regional centers
- Study centers
- Sub-study centers
- Programme study centers

- Work centers
- Information cell
- Counselling by letter
- Counselling by handbook
- Counselling by audio and video cassettes

In the DE institutions, the following 'online arrangements' are provided to learners for their support services;

- Counselling through internet
- Counselling by interactive video disk
- Use of mobile devices
- Counselling by telephone

Learners also avail the broadcasting facilities from the DE institutions/universities. These facilities are;

j) Interactive radio counselling

k) Teleconferencing

l) Gyanvani

m) Educational channel 'Gyan Darshan'

Providing support services on time to learners depends on these factors; the aims and resources of the organization, the instructional package employed, the delivery form, the target learners and their socio-economic educational culture, their geographical situations, etc.. All these factors are responsible to contribute to the development of learner support services systems in a DE institution/university.

Check Your Progress: Possible Answers

Answer 1:

Distance learners are those;

h) who could not go for higher education just after schooling but wish to pursue higher education at a later stage

i) who had higher education sometimes back but want to continue their education to enhancement their knowledge

j) who have discontinued their studies for some or other reasons but realize to continue further

k) who want to make their learning should be a perennial one

l) having social, economic, and geographical barriers to attend the regular classes of F-2-F educational institutions

m) who wish to continue their studies in parallel with their daily routine, e.g. office, home works, etc.

n) who cannot attend the regular classes due to some physical constraints, e.g. physically challenged people.

Answer 2:

Open learning is a philosophy rather than a method of distance learning. On the account of Perraton (1997), "Open learning as an organized educational activity, based on the use of teaching materials, in which constraints on study are minimized either in terms of access, or of time and place, methods of study or any combination of these". As it is a philosophy in its approach, it suggests removal of the barriers and restrictions placed on learners as often found in conventional educational setup, opening up learning opportunities to a wider range of people, and enabling them to learn more efficiently, effectively and productively.

Answer 3:

In the time of examination, learners do not only seek the information regarding their dates of examination, information about the hours of examination, but also the revision processes and methods to prepare for the examination. Some learners ask for revision strategies and even requested the counsellor to conduct a demo examination to remove the examination fear from them. In this case, a counsellor explains the ways of revising study materials, inform them question types and answering strategies which help them to do well in the examinations.

Answer 4:

Offline arrangements for learner supports are listed below, those are operated by DE institutions.

- Headquarters
- Regional centers
- Study centers
- Sub-study centers
- Programme study centers
- Work centers
- Information cell
- Counselling by letter
- Counselling by handbook
- Counselling by audio and video cassettes

10.7 UNIT END EXERCISE

Q.1 What is LSS? Explain it's need in distance education.

Q.2 What are the different types of support services? Explain the non-academic support services need for the distant learner.

Q.3 Write short notes :

1) WWW

2) Virtual conferencing

3) Factors affecting support services.

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11

PLANNING AND MANAGEMENT OF ODL

Unit Structure

11.0 OBJECTIVES

This unit deals with the concept of meaning of Planning and Management of ODL and hence by the end of the unit you will be able to:

- Explain the meaning of Planning and Management of ODL
- Explain the Institutional Mechanism of ODL
- Define Role of distance teacher in distance learning

11.1 INTRODUCTION

Open and distance learning (ODL) refers to a combination of two approaches that share a common aim of expanding access to education (Freeman, 2004: 6–7). Planning provides a framework or structure to guide decision-making and offers the opportunity to challenge existing paradigms – to look beyond the constraints of the current situation and imagine how things might be. Planning challenges stakeholders to be creative in devising ways to achieve your vision and links the activities to broader goals in national development plans. Planning focuses on the issue of sustainability and provides the information needed to prepare funding proposals and helps to ensure that institutions are meeting the needs of learners. Planning forms the basis for assessing institution's achievements and ensuring that it is accountable both internally and externally.

Regardless of the size of the programme, unit, or institution undertaking development and implementation of an open and distance learning system, the following functions must occur at some level. Valuable considerations in relation to each open and distance learning task are listed in the following.

Obtaining and Managing Money and Other Resources

- Grant-sustained, cost recovery (self-financing);
- Higher development and start-up costs; and
- Human support relatively expensive component.

Developing or Acquiring Programmes and Courses

- Considerable development time required for full-scale development and production;
- Buying or leasing courses from other open and distance learning providers may be
- More effective use of resources; and
- Continuum of approaches, from single author to large teams of specialists.

Recruiting and Promoting

- Analyze and assess the needs of your prospective learner populations;
- Make information available at right place and time;
- Provide sufficient accurate information about time, cost, effort required;
- Provide sufficient accurate information about when, where, and how to get
- Involved; and
- Reassure potential learners about legitimacy and credibility.

Physically Producing, Reproducing, Storing, and Disseminating Materials

- Course materials requirements may demand print, audio, video, or computer Software;
- Dissemination may require post, courier, transport companies, telecommunications, Broadcasts, satellites;
- Physical production and reproduction time consuming; and
- Specialised equipment and personnel required for storage, handling, packaging, Dispatch, inventory.

Enrolling and Registering

- Process varies from simple manual lists to complex electronic systems;
- Fixed or rolling entrance dates; and
- Range of delivery options available.

Delivering Programmes and Courses

- Two-way communication required;
- Evaluation and feedback;
- Collaboration with other agencies;
- Library services; and
- Record systems.

Providing Learner Support

- Personal support such as advice or counselling;
- Academic support such as tutoring, grading, and examining; and
- Face-to-face or mediated support.

Examining, Crediting, and Granting Credentials

- Range of credit options available;
- Exam taking and credit evaluation requirements; and
- Involvement of professional associations and external agencies.

Evaluating and Revising Processes, Procedures, Programmes and Courses

- Learner performance;
- Learner satisfaction;
- Meeting goals and objectives; and
- Resistance to change.

Training and Developing Staff

- Orientation and adjustment to new technologies and approaches; and awareness of advantages and limitations of open and distance learning operations.

11.2 INSTITUTIONAL MECHANISM FOR ODL

Institutional mechanisms are the processes that facilitate decentralized planning, implementation and monitoring. Each institution has its own history and unique structure. The institutional

mechanism provides the required help to its learners in various academic and administrative matters of the institution. The main objective of such mechanisms would be to motivate learners, keep them on the right track and encourage them to make use of the facilities provided by the institute and above all to facilitate their learning. ODL institutions may be established using one of the following legal forms:

- Part of a government ministry or department
- A unit attached to another educational institution
- A semi-autonomous institution, established by ministerial regulations
- An autonomous body, established by an act of parliament
- A non-profit entity (foundation, trust, voluntary association, etc.)
- A private company limited by shares (for profit)
- A public limited company (for profit)

Even when governments provide subsidies for this service, ODL institutions rarely operate at a profit. For this reason, it is unusual for ODL institutions at this level to be constituted as private or public companies. In terms of their internal structures, ODL institutions are organized in many different ways.

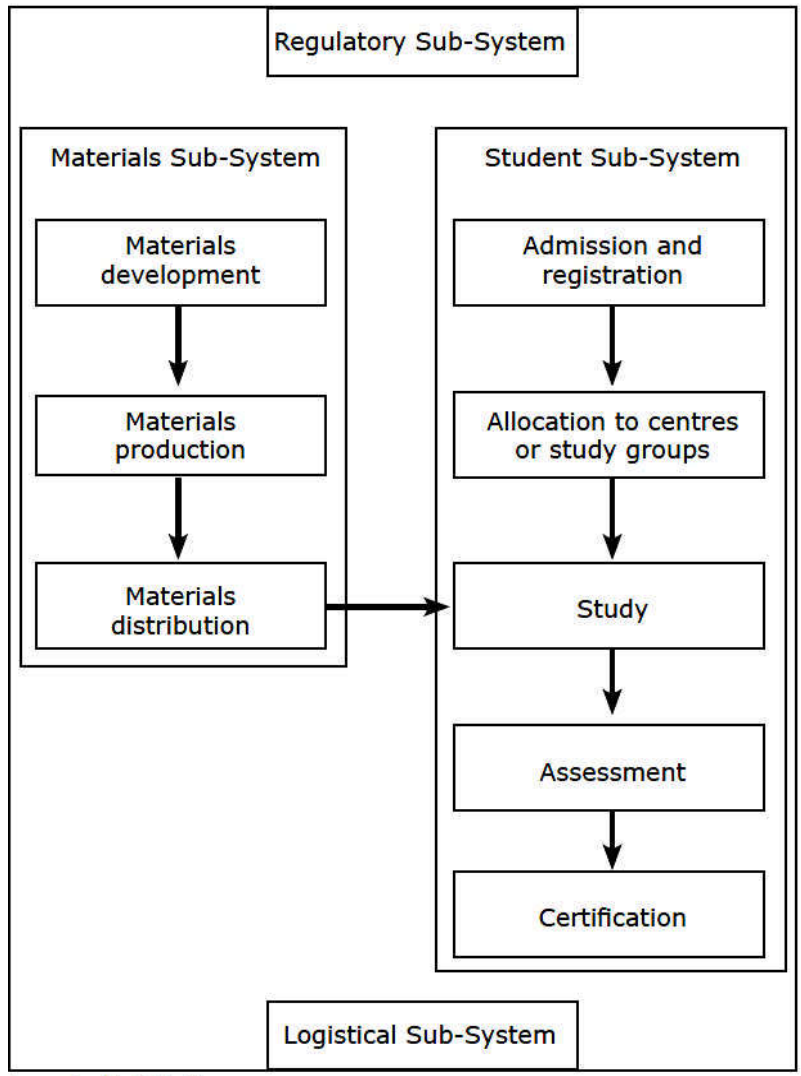
Rumble (1986: 15–17) proposes a simple model that looks at the operations of ODL institutions in terms of four interrelated sub- systems. The value of such a model is that it clearly identifies the main areas of activity in any ODL institutions and defines the relationships between them. It also suggests an analogy between a factory producing items for consumption and the "quasi-industrial processes" of an ODL institution. Just as in a factory, ODL involves the specialization of tasks and the division of labour between different units. The four sub-systems in Rumble's model are illustrated in Figure 7.1 and described below:

- **Materials sub-system:** This includes all activities involved in developing, reproducing and distributing self-instructional materials, whether these are primarily print-based or involve other media.
- **Student sub-system:** Once learning materials have been produced, responsibility for learners is passed over to the student sub-system. This comprises all of the activities, staff and other resources that are involved in facilitating learning by students and managing their progress through a programme.

- **Logistical sub-system:** The materials and student sub-systems are supported by other units that procure and manage resources for the institution. Those units which look after finances, human resources and information and communications technology constitute the logistical subsystem of any open school, college or university.

- **Regulatory sub-system:** Finally, overall management and guidance are the responsibility of the regulatory sub-system, which is sometimes referred to as the "brains" of the institution. All activities related to strategic planning, policy formulation and monitoring of the institution's performance in meeting its goals are part of this sub-system.

SYSTEMS MODEL OF AN ODL INSTITUTION Figure 7.1



Source: Rumble, 1986: 17

Many ODL institutions have replicated the sub-systems of Rumble's model in their internal organisational structures. This means that they have set up separate units with responsibility for:

- Materials development, production and distribution;
- Learner support services
- Logistics
- Management and governance

The boundaries between these units may differ from one institution to another. While developing such systems, the following objectives have been identified based on the needs and concerns of the user groups i.e. including student community of the ODL institution. (Khanna & Basak, 2009)

a. The system would improve access to student services. This includes time and geographic access through the World Wide Web and also methods to access non-web services or service departments. This goal may be achieved through the use of common and cost effective technologies, such as Web-browser and Internet TCP/IP connection.

b. The system would support practices of effective teaching and learning. It includes proper distribution and access to course and program information and learning resources; integrating existing instructional and learning technologies and student services into on-line course and programs.

c. The system would improve communication and coordination between individuals while improving student-instructor and student-student communication as well as collaboration between departments which are providing student support.

d. The system would facilitate responsive and integrated student support by connecting to appropriate services based on task or need such as through the provision of search facilities to search the site and by providing a vehicle for on-line access through an easy-to-use web interface.

e. The system would create a flexible system infrastructure which can accommodate changes, additions and new technologies. This can be achieved by using open web standards and database standards and technologies, and creating information templates that can be filled in, edited and re-used.

11.3 ROLE OF DISTANCE TEACHER IN DISTANCE LEARNING

There is no denial that the role of teachers in Open Distance Learning is different from the role of conventional system in some ways. But it does not mean that this role denies the basic meaning of teaching. The definition of teachers given in the Act explains the nature of work in the Distance Learning. It includes:

- Imparting instruction
- Giving guidance

- Rendering assistance to students for pursuing a course of study

The word "teaching" includes all these functions. Here we see some more functions included in the "teaching":

- Preparing educational material
- Designing of the course
- Delivery of the course
- Evaluation of the work done by students

Designing, preparing or developing and delivery of the courses are the three main functions at the Open leaning system and include three types of activities: academic, technical and administrative. No educational material can be prepared without academic input. Academic input means imparting instruction, giving guidance and rendering assistance for pursuing the study in a particular field. But this input should be presented in a manner that the educational material could carry out the academic objectives. If any course communicates successfully to the students it means that the presentation is effective. The presentation and communication of the course are as important as the content in distance education. One can say that the presentation and communication are more important in distance education rather than conventional system. The presentation and communication are also called the delivery of the course, which has three aspects:

1. Effective presentation of the course
2. Successful communication to the student
3. Physical delivery to the student

The first two aspects are academic in nature and cannot be separated from the content of the course. Every teacher should be knowledgeable and well trained in how to present and communicate the content of the course either in a classroom or through the distance mode. Thus, the basic difference between a conventional teacher and a distance teacher is only the mode of the delivery. S/he should know how to present and communicate through distance mode and for it s/he should identify and apply the appropriate methodology. But how can a teacher decide which methodology is appropriate and desirable for a particular course if s/he is not an expert in the subject? This analysis shows that the knowledge of the subject and the pedagogy is an integral part of teaching and cannot be separated.

11.4 EMERGING PROFILE OF A DISTANCE TEACHER

Those in direct contact with learners, in teaching, tutoring and student support roles, require the following competencies and attributes. (O'Rourke, J.1993)

- At ease with adult learners; aware of particular needs and circumstances of adult learners; (even if the distance project is serving young school-age learners, experience with adult learners provides skills in dealing with more open ended learning situations, handling logistical arrangements, etc.);
- Expertise in a subject area or discipline, and in teaching that subject area or discipline;
- Knowledge about how distance education works, and about the kinds of resources and timeframes needed for distance education course delivery;
- Ability to work as a member of a team;
- Knowledge of administrative systems within one's own organization;
- Openness to new ideas; new perspectives on one's discipline;
- Willingness to learn new approaches to teaching and learning;
- Ability to balance demands of discipline with the needs of the learner;
- Ability to communicate needs of learner to institution and institution's perspective to learner;
- Interpersonal skills in student advising, counselling, problem solving.

ROLES: As distance education program is being launched, this individual may be in a role such as:

- Director of student services;
- Student counsellor; or may be in an academic position which requires extensive contact with learners,
- Lecturer, tutor, etc.
- After a distance education program is launched and roles are formalized, this role may become:
- Tutor;
- Tutor/counsellor;
- Tutorial services/student counselling coordinator*

Tutorial services/student counselling coordinator, requires additional competencies:

- Ability to oversee effectively the teaching/advising work of others;
- Ability to provide learning opportunities for others working as tutors, either directly by mentorship, provision of workshops and seminars, or indirectly, by seeking out and providing for formal or non formal learning opportunities.

11.5 UNIT END EXERCISE

1. "Planning forms the basis for assessing institution's achievements."Discuss this statement in the light of meaning of planning and management in open distance learning (ODL).
2. How institution mechanism of ODL help in developing the system? Explain Rumble's model for ODL institution.
3. Explain the role of teachers in Open Distance Learning. How it is different from the role of conventional system ?
4. What competencies and skill are required to be performed by an emerging distance teacher?

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12

EMERGING PROFILE OF A DISTANCE TEACHER

Unit Structure

12.0 OBJECTIVES

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

- Specify the characteristics of distance teaching;
- Describe the designation ‘distance teacher’;
- Explain the role of the staff members in distance education;and
- Identify the attributes and skills which emerge as a part of the profile of the distance teacher.

12.1 INTRODUCTION

In the previous units you have learnt about curriculum transactions in distance education by first examining the teaching- learning systems following by looking at the instructional techniques and materials for a better understanding of the possible transactional methods. We next focused on ways learner support systems operate in order to examine different ways in which curriculum transactions could be enhanced. Having examined the transactional process so far, we will now turn our attention to the role played by a distance teacher in the process of curriculum transaction.

12.2 DISTANCE TEACHING

Distance education utilizes the most efficient principles and practices of education to implement objective-based teaching- learning processes through the distance mode. It deals with the identification of relevance-based programmes for specified target groups, defining overall and specific objectives, analysis of learning situations, selection of methods and media, development of self- instructional multi-media materials and evaluation tools and the implementation and validation of the instructional system. There are three major components of distance education:

I. The technology of education, which has emerged from behavioural and social sciences like education, psychology, sociology etc, through which useful knowledge in the areas of learning, motivation, individual differences and the overall characteristics of distance learners has been developed for application in distance education.

II. Technology in education which has emerged from communication technologies and has provided relevant tools and machines starting from the blackboard to the printing press, slide projectors, overhead projectors, film projectors, radio, television, computer and relevant software. These technologies are able to overcome time and space limitations and have demonstrated great potential for transporting information and education to the door steps of the learner.

III. Techniques in management science which, when applied in industrial enterprises, have created knowledge like organizational behaviours and systems approach to utilize the sum total of all the available resources- human, material and financial – in a systematic manner in order to maximize educational output quantitatively as well as qualitatively.

Distance education institutions (DEIs) and Open Universities (OUs) have, by and large, been given the autonomy to work out their own strategies to pursue the realization of their goals. Hence, they mainly

develop and implement application- oriented programmes in agriculture, health, education, industry and technology, etc.

It is generally acknowledged that distance education is one of the most important educational innovations of the twentieth century, though its beginnings can be traced to earlier periods. Distance education is now considered an essential component of an educational system whose scale of operations are very large which therefore means adopting varied methods and systems for delivery. Within the broader thrust area of distance education systems, distance teaching is a form of teaching characterized by:

I. Quasi-permanent separation of the teacher and learner throughout the length of the learning process;

II. The influence of an educational organization both in planning and preparation of learning materials and in the provision of learner support services;

III. The use of technical media-print, audio, video, or computer- to unite the teacher and learners and to convey the content of the course;

IV. The provision of two way communication so that the learner may benefit from or even initiate dialogues;

V. The quasi-permanent absence of the learning groups throughout the length of the learning process, so that people are usually taught as individuals and not the groups, with the possibility of occasional meetings for both didactic and socialization proposes. (Keegan, 1990).

The first two characteristics separate distance education from the conventional educational system and pose a new set of instructional problems which do not arise in traditional/face-to-face teaching, and which need to be investigated by appropriate scientific methods. This is in contrast to the studies on existing practices in schools or comparative studies of various educational institutions and about social consequences of school and college education. They are concerned with the needs of a distant learner, her/his psychology, and the styles and constraints under which he/she lives and grows. The experiences gathered by distance educators have already shown that successful methods of face-to- face teaching do not readily translate into the distance teaching mode.

Characteristic (iii) alters the teachers role from being that of the disseminators of information of the managers of the teaching- learning process. In conventional teaching, the media is used primarily to assist the teacher to improve learning, whereas in distance education it is used as the core instructional instrument. The whole system is standardized and then supplemented by personalized student services.

Characteristics (iv) and (v) are important components of the strategy of reducing student drop-outs. They provide students with relevant

opportunities to overcome temporary hurdles, to be reassured about their progress and to share experiences with other students. Although this element comprises a very small proportion of the actual study time, it has provided distance educators with a vast area of research.

An important task of the distance teacher is a regular and on-going effort to identify, design, develop, implement, continuously evaluate and renovate educational programmes, particularly for the disadvantaged groups so that they can contribute to the economic and social development of their country. This multi-dimensional thrust area of the distance teacher makes it imperative that we obtain a clear understanding of the basic requirements of a distance teacher.

For this, you should work on the following exercise. However, before we move on to seeking this understanding, let us pause and examine what we have learnt in this section.

Check Your Progress 1

1. Write down a list of the characteristics of distance teaching.

Notes:

a) Space is given below for your answer.

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

12.3 WHO IS A DISTANCE TEACHER?

The entire teaching-learning process in distance education calls upon different categories for academic, non-academic, technical and professional staff to perform various functions. There are Vice-Chancellors and Pro-Vice-Chancellors of OUs, and Directors of DEIs who are engaged in top-level administrative, managerial and planning activities. These are supported by middle level and supporting staff who are engaged in different divisions, viz. Planning, Communication, Printing and Publication, Material Distribution, Admissions, Evaluation, computers, Administration, Finance and Regional Services.

The academic work is handled by the faculty of the OUs/DEIs, viz. Professors, Readers, Lecturers etc. in collaboration with the outside faculties and subject area experts engaged in part- time for curriculum designing, course writing, editing and production of materials ranging from printed self-learning materials, assignments, audio-visual materials to computer aided packages. Course writers, editors, media producers and computer experts are engaged for the purpose. During the curriculum transaction phase the non-academic staff is required for making admissions and sending materials and the academic staff are required for tutoring, guiding and counseling the distance learners, commenting, grading and providing relevant feedback on their assignments and other academic help. For these tasks they are assisted by the administrative and managerial staff at the Regional Centres, Study

Centres and other centres. All these personnel may aptly be designated teachers. Let us therefore get to know them and their functions (s) in the distance education programmes more clearly.

12.4EMERGING PROFILE OF A DISTNACE TEACHER

There is a growing recognition that the distance teacher has to be a specialized professional, equipped with multiple skills and qualities. She needs to take concerted steps to build up a career in distance educations (Arthenayake, 1998). For this, the distance teacher will need to be fully aware of the latest approaches and methods for interaction with the learners and be up to date with the trends and changes in her/his subject area. keeping abreast with the changing scenario thus becomes a major responsibility of the distance teacher.

It can, therefore, be said that the emerging profile of the distance teacher shows the following attributes: knowledge, ability, competency, adaptability and flexibility, cooperativeness, patience and tolerance, creativity, innovativeness, a futuristic outlook, an energetic and dynamic approach, motivation and commitment to building a career in distance education.

This profile of the distance teacher requires certain knowledge and skills to be tapped at different times. Subject specialization and expertise together with a knowledge and familiarity with distance education concepts and practices besides some knowledge and experiences in instructional design, will help the individual deal with the identification, planning, designing, development of curricula and courses. An ability to write, edit and transform material is also required for course and unit writing. Familiarity with computers and audio-visual material is considered important in the information age; tutoring, counselling with some knowledge of educational psychology, assessment and evaluation techniques and methods are also required assets. Its advances (E- mail, Internet, networking, etc) become more relevant with rapid and drastic changes in the nature of communication through various media. Finally, the managerial and coordination skills needed for the variety of tasks in distance education show the need for these skills in all distance teachers.

These attributes and skills are emerging as inherent requirements in the distance education system which is currently in an exciting state of continuous change and renewal.

Check Your Progress 2

1. Write a brief note on the emerging profile of a distance teacher. (120 words)

Note:

a) Space is given below for your answer.

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

12.5 ACADEMIC STAFF

OUs and DEIs have academic as well as industrial characteristics. They are more learner-centred than the conventional system. They provide standardized, individualized instructional materials to the students followed by personalized tutorial guidance. One of the important functions of academic staff is to develop, try out and implement instructional programmes packages including self-instructional materials. They include curriculum designers, course coordinators, course writers, editors, evaluators, assessors, tutors, counselors, media specialists and so on. These tasks are done by a relatively small number of full-time staff at the central institutes and part-time tutorial and counseling staff at the learning centres which are in the vicinity of the learners.

Let us understand the various roles and tasks of the academic staff by examining each of them in detail.

12.5.1 Curriculum Designers

They are subject experts, and are concerned with the identification of relevance based programmes and courses. They are in-house experts as well as the best subject area specialists available in the country, who are invited to design and suggest syllabus, identify curriculum aims and objectives and design multi- media packages. They work at the planning stage of the development of distance education programmes and courses. They are generally top level academicians and practitioners.

12.5.2 Course Coordinators

A course coordinator is one who plans, supervises and monitors the activities of the course writers, content editors, format editors, audio and video producers, graphic artists, copy editors, printers etc. involved in the preparation of a course. She/he is a manager responsible for the inputs from the academic and production staff involved in the preparation of a course, and is often an in-house faculty member who specializes is an area covering the course. Also, courses are maintained by course coordinators.

To carry out their tasks effectively and efficiently, the course coordinators must be involved in the process of course planning and designing. Course planning is the first stage in the preparation of a course which involves need analysis, setting of broad objective and goals, outlining the content areas to be covered, and the financial aspects related to the course. Course designing is the next step in the process of systematic planning which determines the aims and objectives, instructional events, and evaluation procedures of a course. It is a composite task which involves activities such as outlining the actual content area, selection of themes and sub-themes, division of the content into blocks and units, planning of media inputs, establishing time frames and determining the approximate expenses involved.

12.5.3 Course Writers

The tasks of course development involves the actual task of writing the course units and also the audio and video scripts. The course writes and subject specialists and they may preferably be middle level academics of the rank of Reader or Lecturer (assistant and Associate Professors) who can devote adequate time to attend to the rigorous and time consuming process of developing instructional materials, particularly, self-instructional materials. Their tasks include analysis of the syllabus, identification of objectives in behavioral terms, development and analysis of content and activities (which are appropriate to the objectives identified), developing suitable access devices, test items and instructional steps, holding a systematic trial of the material developed and its standardisation for mass scale production and usage.

Before moving on to the next functional area of the academic staff, let us pause here and summarize what has been presented so far. To do this you should work out the following exercise.

Check Your Progress 3

What is the role of 1) a course coordinator, and 2) a course writer (50 words each).

Notes:

a) Space is given below for your answer.

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

12.5.4 Editors

The editor in a distance education system has to play a pivotal role in the production of instructional material which is self- instructional and learner-oriented. His/her involvement covers all stages of course preparations, initiation, development, production and even post production stages. He/she is responsible for the academic and pedagogical quality of the material, which requires the editor to check the language, the structure of the Unit/Block, content and the final design.

The initial drafts of the self-instructional materials generally undergoes three types of editing: content, format and language editing.

Content editing: the first draft of the units have to be scrutinized and the editor is required to assess the adequacy of the content and its appropriateness to the level of the largest student profiles. If the draft is found to be inadequate or inappropriate, the editor can return the unit with comments for rewriting or take up the task or rewriting to meet the requirements. The content editor has to ascertain that all concepts, theories and principles are adequately defined and explained, and appropriate and relevant example, illustrations and analogies are presented in unambiguous terms.

Format editing: it is the next step which follows once the content has been finalized. Format editing is generally done by behavioral technologists in order to ensure adequate behavioral guidance is being provided. Every DEI/OU follows a "in-house style" to maintain uniformity in the various units of a Block and course. The formats of SIMs should follow that house style. It should have all the components of the SIM, viz: access devices like a clear structure, objectives, introduction, interactive instructional steps, self-assessment questions (SAQs), summary, glossary, references, etc.

Language editing: the language used for SIMs should be simple and clear to have effective communication with the learner. It is language used that makes the material comprehensible or difficult, interesting or boring. The principles of language editing are applicable to all languages, but English or other foreign language courses pose additional problems to course writers due to their inadequate knowledge of the language, confused expressions, incorrect use of idioms, ungrammatical sentences, etc. Language editing can be done by consulting a language expert or specifically assuaging the task to a "Language Editor".

Check Your progress 4

What are the different forms of editing needed for self-instructional materials (SIMs). (150 words)

Notes:

a) Space is given below for your answer.

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

12.5.5 Assessors and Evaluators

The way in which student achievement is assessed forms a vital part of the way in which the curriculum is defined (Hughes,

1997). An explicit statement of the important elements in the curriculum is reflected in the process of student assessment. This is not merely due to the fact that it becomes the focus of student attention but because it is for teachers and educators the definition of what schools see as valuable.

The role of tutor-marked assignments and computer-marked assignments in the internal assessment and final evaluation of the student is clearly envisioned by OUs/DEIs. Assessors are not merely experts in assessing the various aforementioned assignments, but are constantly engaged in developing and evolving appropriate assignments to reflect the long-term and overall objectives of the distance education programmes.

The evaluators are experts who undertake all activities concerned with internal and external evaluation. They have a clear understanding of evaluation which is formative (evaluation conducted during the teaching learning process to identify and utilize process improvements) and that which is summative (evaluation carried out at the end of the

teaching-learning process, which is essentially focused on the product or the learning outcome/achievement of the student). Distance education, due to its very nature has imposed various restrictions on the use of various forms of evaluation studies, e.g. use of qualitative ethnographic methods (Hall 1997). However, the growth of the use of new technology in distance education (as well as in conventional education0 provides new possibilities for conducting evaluations, enabling teaching and learning (using new technology) to be better understood. The new opportunities can be examined in terms of the type of data that needs to be collected and the focus may be on:

a) attitudes, opinions, perceptions and experiences;

b) behavioural logging data; and c) learning content.

12.5.6 Academic Counselors

Academic counseling encompasses all types of teach- learner interactions that are aimed at facilitating learning. These interactions may be mainly tutorials with various aspects of counseling featuring in between tuition; however, sometimes the interaction may be exclusively of the nature of counseling. Such counseling may be at

I. The pre-enrolment or pre-entry stage;

II. The stage of induction into the programme;

III. The stage of submitting the first assignment;

IV. The stage of initiation into any new activity such as a lab course, a hands-on experience in a computer programme, preparation of a project proposal, etc;

V. The pre-examination stage; and

VI. The post-programme stage.

The academic counselors are thus expected to offer support to the students through counseling and tutorial services. As tutors they are concerned with providing academic guidance to learners. They clarify academic doubts through discussions or/and audio- video presentations, and may grade and provide feedback on assignments. They also help in conducting practicals and guiding projects etc.

12.5.7 Media Specialists

The very nature of distance education programmes makes media a central role in the delivery of the content to the learner. The trend of using information technology to develop and deliver more effective instruction is increasing. The emergence of modern two-way communication technologies has led to a contraction in the distance between the learner and the tutor. Thus, teaching and

learning through a distance mode is now becoming independent of time and place. The development of telecommunication technologies has led to the convergence of distance education and traditional face-to-face teaching.

Distance education used to conjure up the image of an isolated student working with printed material and relying on the postal system for any interaction with the teacher. Telecommunication technologies have now increased communications, often to a greater extent than exists in face-to- face teaching. These technologies have also changed the very nature of the curriculum. The easy avaiblility of databases, the resources of the internet and connection with students around the world have led to small but significant changes in the content of some of the courses, from the primary to the post graduate level. The notion of resource based learning in which multi-media resources such as videos, databases, online image banks and electronic journals are made available to students and in which the teacher acts as a guide and facilitator is presently talked more about than actually practiced, but it does take on a new meaning with the advent of telecommunications.

The tele-teacher needs a lot of preparation time to conduct more effective programmes. This preparation is mainly of two sorts; i) producing requisite audio, computer or visual material, and ii) planning the format of the session. The more the interaction desired, the more planning is necessary. The tele-teacher needs to ask a lot of questions in order to "force" interaction with the learners. Questions to learners participating at distant sites should be pre-planned and range from lower order (recall of knowledge) to higher order synthesis, analysis, problem solving, etc.) on Bloom's taxonomy of cognitive domains. It is important that the teacher allows enough waiting time for the students to process information before they answer, a question posed (Barker and Goowin, 1992).

With videoconferencing, teachers need to project themselves rather like actors, and create a dynamic presence to convey their subject over the monitor. Audio graphics instructors need to develop their listening skills in order to coordinate interaction from several sites. The role of the computer conferencing teacher is even further removed from that of the traditional lecturer. Preparation entails the structuring of conferences and topics and the design of activities and small group work. During the course itself, the teacher's role is one of facilitator and host, rather than one of content provider and "star of the show". While the teacher's role is particularly time consuming in the initial phase of a computer conferencing course, it is usually reduced, as students take over the discussions. Nevertheless, some reports indicate that teachers spend up to twice as long, to give a course

via computer conferencing as they do in offering a course by traditional means. Most teachers who take on the challenge of teleconferencing, particularly those who develop collaborative learning strategies for their courses, report tremendous satisfaction despite the greater effort required.

The reward lies in their sense of working towards the goal of developing independent, questioning learners. Almost all find that using these technologies a tremendous learning experience for them. They are often able to recognize the need to facilitate-centred instructional systems that promote knowledge generation through collaborative learning. The quality of student interaction and performance has shown that students were able to generate knowledge, to innovate, to collaborate, and to analyze their own learning. The teacher's role in interactive telecommunications teaching is best portrayed as that of a facilitator guiding and supporting the learning process. This is not an easy task and consumers much more time and energy and does teaching a traditional class. One of the additional records for computer conferencing teachers lies in the flexibility it gives them to work at their convenience and not along pre-determined lines.

Computer conferencing, audiographics and tele or video- conferencing all require training and support for the teachers. While most institutions do develop written material for teachers, hands-on training is very important. A basic familiarity with the equipment is fundamental for developing confidence in teaching with it.

So far, we have presented the different aspects of functioning for academic staff. Before looking into the role of other staff members, let us examine our understanding of the topic. For this purpose, do work on the following exercise.

Check Your Progress 5

Briefly describe the role of a "media specialist" distance teacher.

Notes:

a) Space is given below for your answer.

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

12.6 NON-ACADEMIC STAFF

The lar4ge scale and organizational nature of OUs/DEIs results in an important role for other staff members besides the academic staff already mentioned. These personnel can broadly be categorized into two groups:

i) Non-academic staff and ii) Technical staff.

12.6.1 Planners & decision making office

The non-academic staff can mainly be divided into two types as follows:

I. Planners and decision-making officers in divisions like Planning, Publishing and printing, Material Distribution, Admissions, Evaluation, Computer, Communications, etc. These officers have a variety of designations such as Directors /Joint/ Deputy/ assistant

Directors, Registrars, Joint/ Deputy/ Assistant Registrars/Section Officers, Finance Officers, Public Relations Officers, etc.

II. Support staff like Senior Assistants, assistants, Junior Assistant, Typists/ Personal Assistants /Professional Assistants/ Secretaries/ Computer Operators etc. (Mullick, 1995).

12.6.2 Support staff

The personnel in the various departments who have to provide a wide variety of technical inputs include:

a) Printing staff: production officer, superintendent, copy editor, proof reader, lesson keeper, copy holder, etc.

b) Audio-video production: audio producer, video producer, script writer (audio & video), sound recordist, graphic designer, cameraman, VTR operator, audio/video editor engineer/assist engineer, set designer, floor manager etc.

c) Computer staff: programmer, system specialist, word processor, key punch operator, computer assistant, etc.

d) Library staff: librarian, professional assistant, assistant, library clerk/typist, computer assistant, etc.

The integral role of these personnel in helping to deliver education through the distance mode makes it imperative that they all have a basic orientations and training in the fundamental issues related to distance education. They need regular developmental up gradation programmes which allow them to keep abreast with on- going changes in their fields.

Check Your progress - 6

Besides the academic staff, who are the other staff members involved in the DEIs/OUs?

Note:

a) Space is given below for your answer

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

12.7 LET US SUM UP

In this unit we discussed the following so as to locate the role of a distance teacher effecting distance teaching:

- Distance teaching was described through the three components of: technology of education, technology in education and techniques in management sciences.
- The following characteristics of distance education were identified:

I. Separation in time and space of teacher and learner;

II. Strong organizational influence on the planning and preparation of learning material and services for learner support;

III. Technical media- print, audio, video and computer carry the content of the course and unite the teacher and learner;

IV. Two-way communication provided; and

V. Learners are individuals and seldom work in group.

- Generally the designation "distance teacher" includes all the academic, non-academic and technical staff who perform a variety of roles in DE programmes.
- The curriculum designers, course coordinators, course writers, editors, assessors and evaluators, academic
- counselors and media specialists are all members of the academic staff.
- Other staff include the administrative and official personnel in the various departments and the support staff besides the large group of technical staff in printing and publishing, audio-video production, and computer and library personnel.
- The emerging profile of a distance teacher is that of a specialized professional equipped with multiple skills and qualities. The person should consciously be taking steps to build up to a career in distance education.The presence of the attributes of knowledgibility, competency, adaptability, flexibility, cooperativeness, patience, tolerance, creativity, innovativeness, a futuristic outlook, an energetic and dynamic approach, motivation and commitment to building a career in DE play a vital role in the repertoire of a distance teacher.

CHECK YOUR PROGRESS: THE KEY

1. Distance teaching is a form of teaching characterized by the following:

I. Teacher and learner separation in time and space almost throughout the entire length of the learning process.

II. Planning and preparation of learning materials and the services for supporting learners are all influenced by the organizational set up of the institution.

III. Technical media in the form of print, audio and video media and computers which carry the content of the course and unite the teacher and learner.

IV. Two-way communication is provided for the benefit of learner.

V. Learners are dealt with an individuals and not in groups.

2. i) Course coordinator: the inputs from the academic and production staff involved in the preparation of a course are managed and coordinated by the course coordinator. She/he is generally a faculty member of the OU/DEI who specializes in an area covering the course. The coordinator should also be involved in the planning and designing of the course for more effective course development.

ii) Course writers: they are subject specialists who are in a position to devote adequate time and energy to the rigorous and time consuming task of developing instructional material. Their task includes the analysis of the syllabus, identification of objectives in behavioural terms, development and analysis of content and activities, development of suitable access devices, test items and instructional steps. They must also be involved in the systematic trial of the material developed and its standardization for mass scale production and usage.

3. The draft preparation of the SIMs usually undergoes three forms of editing: content, format and language.

Content editing involves scrutiny of first draft on the basis of adequacy of content and appropriateness of the level to the target student profiles. At this stage the editor checks whether i) the concepts, principles and theories have been adequately defined and explained, and ii) appropriate and relevant examples, illustrations and analogies have been presented in unambiguous terms.

Format editing is generally done by an educational technologist whose task is to ensure that adequate guidance is provided. The "in-house style" of every DEI/OU helps in the maintenance of uniformity. The essential components of SIMs such as access devices, like structure, objectives, introduction, interactive instructional stage, SAQs summary, glossary, reference, etc are also checked.

Language editing is the carried out to ensure clarity and effective communication with the learners. Grammatical and idiomatic errors are carefully edited and sentence structures, etc. are also scructinised.

4. The distance teacher who utilizes the communications media can generally conduct more effective programmes and courses as this requires more preparation time than conventional teachers to i) produce the requisite material and ii) plan the format of the session. It has been observed that the amount of interaction that takes place during the session is directly proportional to the planning which has been earlier put in by the teacher. The teacher generally has to play the role of facilitator and host, e.g.,

Video conferencing:Teachers project themselves as actors to create a dynamic presence to convey their subject content over the monitor.

Audio graphics: Teachers need to develop listening skills to coordinate interaction from different sites.

Computer Conferencing: Teachers need to plan the structure of the conference and topic and the design of activities and group work.

Teachers' role in interactive telecommunications teaching consumes a lot of time and energy, but the rewards and personal satisfaction of helping to develop independent, questioning learners are tremendous.

5. Besides the academic staff there are other members of the staff of DEIs/OUs who perform complementary, supplementary and support tasks. They can broadly be classified as; non-academic staff and technical staff.

I. Non academic staff includes the administrative planners and decision making officers in the various departments such as Directors Joint/Deputy/Assistant Directors, Registrars, Joint/Deputy/Assistant Registrars, Section Officers, Public Relation Officer etc. and the support staff like the Senior Assistant, Assistant, Typist/Word Processor, Personal Assistant, Professional Assistant, Secretary, Computer Operators, etc.

II. The technical staff include the personnel with technical expertise in the printing and publishing section, and in audio- video production, together with the computer and library staff.

6. The distance teacher must be specialized professional with a wide range of skills and qualities to take up the challenges posed by the system. The profile of a distance teacher that emerges includes the following attributes:

Knowledgeability, competency, adaptability, flexibility, cooperativeness, patience and tolerance, creativity, innovativeness, a futuristic outlook, an energetic and dynamic approach together with a strong sense of motivation and commitment to building a career in DE.

The knowledge and skills considered relevant include subject specialization, familiarity with the concepts and practices of distance education, knowledge and experience of instructional design which will help in the identification, planning, designing and development of curriculum and courses. Familiarity with audio- visual materials and computers and know how of information technology advances such as email, Internet, networking, etc. are assets which together with the skills of coordination and management, profile the requisite qualities of a distance teacher.

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13

PROCESS AND TYPES OF EVALUATION IN ODL

Unit Structure:

13.0 OBJECTIVES

This unit helps you to understand the significance of evaluation in DE. It guides you to examine the tools and techniques that are used in evaluating various components of DE. Again, there are a few issues discussed pertaining to evaluation in distance learning.

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

- define the term 'evaluation' in the context of DE
- analyze types of evaluation
- discuss tools and techniques that are used in evaluation
- differentiate between course and Programme evaluation
- explain the purposes of Programme evaluation

13.1 INTRODUCTION

It is well accepted that distance education (DE) is an innovative approach to education and training. Thus, it seeks to check whether the aims and objectives of education and training that offered through distance mode are actually achieved or not, whether the expectations are justified in the process of transaction of curriculum and in the use of resources or not? Hence, there is a need to evaluate the components associated with the distance education system. Being the essential component of DE, evaluation plays a role to assure and retain quality in distance learning. The evaluation report of any components of distance learning guides institutions, concerned persons (instructors, policy makers, etc), and learners to identify their past errors and adapts correct methods and strategies for the benefit of distance learning.

It is observed that the term 'evaluation' is often confused with the terms 'assessment' and 'measurement'. Let us clarify these three terms, their usages and applications in the context of distance education, and then proceed further. The term 'assessment' is understood as; to diagnose problems of learners' learning and improve the quality of their subsequent learning. It focuses on the performance of the learners and how best to guide them to improve their performance in their learning activities. On the account of Rowntree (1997) assessment is a human activity which involves interaction, and aimed at seeking to understand what learners have achieved. The expression 'measurement' is interpreted here as giving numerical indices or scores to learners' learning ability, e.g. John secured 78% marks in the term-end-examination. But in case of evaluation, there are always qualitative indices followed by a value judgement, e.g. John has done very good in the examination and hence secured 'A' grade. Thus, measurement relates with only valuing an information whereas evaluation deals with both valuing an information and explaining the reasons of the value attached to that information. According to Thrope, "Evaluation is the collection, analysis and interpretation of the information about any aspect of a programme of education and training, as part of a recognized process of judging its effectiveness, its efficacy and any other outcomes it may have" (Thrope, 1990, p.5).

Now you might have understood the use and meaning of the three terms, assessment, measurement, and evaluation clearly. We will discuss this

issue further as and when it is required in the unit. But the present discussion will focus more on the evaluation in DE.

13.2 MEANING OF EVALUATION

Evaluation is an integral part of the instructional process and involved in the following three steps.

a) identifying and defining the intended learning outcomes

b) constructing and selecting texts and other evaluation tools relevant to the specified outcomes

c) using the evaluation results to improve learning and teaching

Evaluation is an inseparable component of teaching-learning activity where judgments need to be made. The teaching and learning activities are the continuous process linked with the instructional decisions to promote learners' learning. The main concern of evaluation in DE is to judge the effectiveness of instruction which relate to the causes of quality of DE. In majority cases evaluation report is considered for taking a decision on the issue on which the evaluation is done.

Teachers/instructors involve in educational system tend to ascertain the output of an educational programme. Output is counted in terms of test results. It presupposes results are expressed in quantitative indices, such as scores or marks. For obtaining those scores a device consisting of a set of tasks, called a 'test'. Tests may consist of assignments, tem-end question papers, interviews, group discussions, projects, and so on. Thus from the instructional point of view evaluation may be defined as a systematic process of determining the extent to which instructional objectives are achieved by learners (Gronlund, 1981).

Wottawa and Thierue (1990) made an attempt to explain the concept of evaluation which can serve different purposes. They are:

i) Evaluation has something to do with valuation

ii) Evaluation serves to help in planning and deciding and thus has something to do with assessment and valuation of alternative ways of acting.

iii) Evaluation is oriented towards aims and purposes. It primarily has the aim of checking practical measures, of improving them or of making decisions concerning them.

iv) Evaluation measures reflect the current state of techniques and research methods.

13.2.1 Purposes of Evaluation in Distance Education (DE)

Evaluation of educational programmes is undertaken with two main purposes. They are accountability and improvement. Accountability

implies that if resources are spent on educational programmes, it is very much necessary to determine whether the programme achieve what they are designed to achieve and whether resources are used to the greatest benefit. It is also true that no matter how well a programme seems to work, there is always room for improvement. Evaluation provides knowledge and understanding about the aspects of programme that needs changes and helps us to determine as to what sorts of changes are required. Programme evaluation can also be stated as a formal and systematic process of gathering and providing information about the worth of an educational programme to assist in decision making. Thus, it provides the necessary feedback to academics, administrators, and policy makers to take appropriate decisions about their practices at the right time(Pradhan, B., 2006).

There are three principal reasons to carry an evaluation task in the DE setup. These are;

Providing: to demonstrate conclusively that something has happened as a result of learning or training and that may also linked to judgments about the value of the activity, whether the right thing was done, whether it was well done, whether it was worth the cost, and so on.

Improving: to ensure that either the current or future programmes or activities would be better than they are at present.

Controlling: to use evaluation data to ensure that an individual learner or trainee is performing up to the standard or that subsidiary learning/training establishments are meeting targets according to some centrally determined plan (Biswas & Pradhan, 2002).

13.2.2 What are to evaluate in DE?

There are a few key areas need to evaluate in the DE system to maintain its strength, dignity (pride), production of quality materials, and provide support services to learners. They are listed below though this is not the complete list. It is so because with the fast growing DE system, many changes occurred at same pace, hence all the changes need to be considered for evaluation in reference to the three purposes of evaluation----mentioned above.

a) evaluation of admission to a course/programme
b) assessment of learners performance
c) assessment process of the DE institution/university
d) course evaluation
e) evaluation of instructional materials
f) learner support services
g) evaluation of staff development
h) evaluation of Online technologies in DE system
i) economics of programme evaluation

These are the areas branches out into many subareas, and these are also considered for evolution purposes. Consider an example, the main area 'assessment process of the DE institution/university' has the sub areas, such as; self-assessment, continuous assessment-assignments, term-end-examination. Take another example, the sub branches of 'evaluation of instructional materials' are; evaluation of print materials, evaluation of electronic materials, etc.

As it is stated above there is an area needs to evaluate in the DE settings is known as 'course evaluation', let us discuss what exactly we mean by course evaluation and how it is important in the DE setup.

13.3 COURSE EVALUATION IN DE

DE courses are designed and developed under ideal conditions. The reason for adopting this method of development is to improve learners' study conditions since they are at a distance place. The evaluation of a course is necessary to know its effectiveness and learners' reaction to that course. And, whether the materials suits to the learners' actual study conditions or not? For evaluating a course the evaluator needs the feedback or information from different audiences; such as, learners, course writers, buyers/users, and other stakeholders, etc.. The evaluator(s) will collect the information/feedback by using various tools and techniques to the audiences.

Course evaluation is a continuous process to maintain the quality of course from time to time, and changes made in the design of learning materials (instructional design and curriculum design) if it is required. The aim of course evaluation is to identify whether a course is well managed, well presented, and up to date. When undertaken periodically, evaluation helps statements to be made about the appropriateness, worth, coherence and relative balance of the learning situations provided in relation to their intended outcomes. Thus the purpose of course evaluation is to improve the quality and effectiveness of the teaching and learning that takes place (Koul, 1991).

13.4 PROGRAMME EVALUATION IN DE

Programme evaluation is a management tool. It is a time bound exercise that attempts to access systematically and objectively the relevance, performance and success of ongoing and completed programmes and projects. Programmes must be evaluated to decide if the programmes are actually useful to the learners and whether they are achieving their stated objectives.

Programme evaluation is about carefully collecting information on a programme or some aspects of a programme in order to make necessary decisions. Programme evaluation can include different types of evaluation, such as needs assessment, accredition, cost effectiveness, formative, and summative evaluations. Evaluation is undertaken to guide decision-makers and/or programme managers/coordinators, in order to provide information

on, whether the underlying theories and assumptions used in programme development were valid; or to see which of them worked and which did not, and why. Evaluation commonly aims to determine the relevance, efficiency, effectiveness, impact and sustainability of a programme or project (Pradhan, B., 2006).

The key elements that can be examined in programme evaluation are;

- the inputs that were selected and considered for the development of a programme
- the process that were used for the production of a programme
- the products and out puts that were achieved
- the outcomes/impacts affected to the learners.

Before elaborating further the concept 'programme evaluation', let us understand what is a 'programme' in the context of DE.

13.4.1 What is a Programme?

A programme is a set of activities designed to produce certain desired effects or outcomes to meet some set of standard or norm, a recognized social need or to solve an identified social problem. For example, philosophy programmes aim at to develop rational and logical thinking of learners where they can understand various arguments made by different schools of thought. A programme on Income Taxation guides learners to know the rules and regulations of tax benefit, tax deduction, and individual's benefit.

Programmes are of three types. These are;

a) Degree programmes

b) Diploma programmes

c) Certificate programmes

Degree programme are of usually three years but extended to some years more in distance education set up. This is so because distance learners are heterogeneous in character and they have equally other responsibilities, such as, office work, family responsibility, etc. in addition to complete their enrolled programme in DE institutions. They are part time and adult learners. In the similar way, diploma and certificate programme though are of one year and six months respectively but can be extended to a few years more in DE set up. After running a particular programme in a few years in the DE institution, it needs evaluation for the reasons to see how the programme performs, whether the expected outcomes of the programme are achieved or not, whether target learners have any suggestions and or comments on this programme, and how it can be effectively delivered to the target population with all ramifications.

There are some basic ingredients found in a DE programme. These are;

i) Objectives

ii) Programme design (Curriculum of a programme)

iii) Specified target learners

iv) Processes

v) Outcomes

With these understanding, it will be comfortable for you to understand the differences between 'Evaluation in an Educational Programme (EIEP)' and 'Evaluation of an Educational Programme (EOEP)'. We will discuss these two concepts and bringing out their differences in detail. Evaluation as an essential component of DE has implications both in terms of evaluating learners' progress and attainment, and evaluating the effectiveness of the whole programme. The former refers to 'evaluation in DE' and the later to 'evaluation of DE' programmes.

Check your progress -1

1. What are the basic components of a DE programme?

13.4.2 Evaluation in an Educational Programme (EIEP)

The concept 'evaluation' in the present form enlarges its scope and domain. It encompasses the whole educational programme, which includes three essential components, and these are;

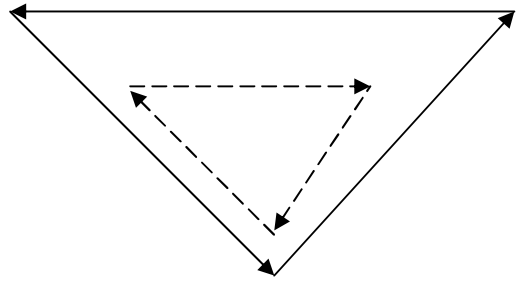
a) educational objectives

b) learning experiences

c) evaluation procedures

These three components must support one another to achieve the desired effectiveness of the programme. The function of evaluation procedures is presented below in the graphical format.

Learning Experience Educational Objectives



Evaluation Procedures

Fig: Evaluation in an educational programme

In this evaluation, the evaluators are to examine to what extent the pre stipulated learning objectives of a programme have been achieved in terms of learners' academic achievement. Further, they will examine programme suitability, programme activities, and the improved effectiveness of a programme.

The evaluation lies in three stages of a programme.

i) at the beginning of a programme

ii) during the programme

iii) at the end of a programme

At the initial stage, the programme planners use pretests to study the existing knowledge of learners about the proposed programme before they enter it, so that learning experiences, appropriate to the concerned learners can be suitably designed and effectively presented. At the mid process stage, they monitor the learners' academic progress by providing feedback to them. At the end of a programme, they assist in measuring the learning outcomes of learners.

Within the process-product relationship in an educational programme, the process of evaluation may help in(Biswas & Pradhan, 2002):

- Diagnosing weakness in learning
- Predicting learners' aptitudes and abilities
- Selecting suitable persons for a course or career through entrance tests
- Guiding learners' abilities through tests/examinations
- Providing guidance for course choice and subject choice within a course
- Evaluating the effectiveness of the whole programme.

13.4.3 Evaluation of an Educational Programme (EOEP)

Evaluation of an educational programme is understood in wider context in comparison to evaluation in an educational programme. In this case, the evaluators analyse the related components, process, and measure the variables associated with the programme. In a sense, evaluate the programme as a whole. The report of this evaluation is considered for accountability and cost benefit information. It gives an overall picture of a programme's running status and present market demand.

13.5 PROCESS AND TYPES OF EVALUATION IN DE

To evaluate a programme in DE, one needs to adopt the appropriate and effective methodology. While evaluating a programme, the evaluator should not refrain from the following tasks.

a) assessing the learning outcomes at different levels

b) examining learners' view on the programme

c) feedback on the quality of the programme

d) market demand and impact of the programme

e) worth of opting the programme

Thus, the evaluation report is to be considered seriously and worth for decision making.

There are four types of evaluation found in an educational programme. These are (MacCuish, 2004);

i) Document evaluation

ii) Formative evaluation

iii) Summative evaluation

iv) Impact evaluation

Let us discuss these evaluations in an order as mentioned above.

13.5.1 Document Evaluation

It provides a descriptive record of the evaluation process. It supplies a contextual record of all evaluation events to the institution. Further, it facilitates the development of a benchmark system. It helps in the revision of a programme. This evaluation is used for two purposes. First, documentation of programme and lesson development, second; giving support to other types of evaluation. In the case of first, the examples are; evaluating learners' records block instruction, anecdotal records, and programme reviews both informal and formal, and evaluation of academic counselors. In the case of second, the evaluation will take a stipulated time period. It implies that without proper documentations, other types of evaluation would not be feasible in DE context.

13.5.2 Formative Evaluation

It is a continuous activity. This evaluation is used for the purpose of improving the components associated in teaching and learning process at a distance. It helps to modify and improve the quality of the programmes while they are at the development stage. It includes reviewing all instructional materials, assessment tools and techniques, accuracy of instructional contents, ensuring all instructional objectives are covered through the instruction, monitoring learners' performance and learning strategies. The purpose of formative evaluation is not to measure the effectiveness of a programme, but to identify any changes it may require which would improve the programme. Thus, it is stated that formative evaluation is the systematic collection of information for the purpose of

making informed decisions about designing and improving educational programmes.

Example, while designing a course, the models used are behaviourial, cognitive, constructive, and connective, etc. Formative evaluation helps us to determine which model will be appropriate for this course and which is currently used for development of this course.

Check your progress -2

1. Write briefly on formative evaluation?

13.5.3 Summative Evaluation

It is used to judge the effectiveness of a programme. While doing that it focuses on the quality of distance teaching components and effectiveness of the support systems provided to the learners of the programme. It validates all the courses of a programme. An evaluator while doing the summative evaluation of a programme, following considerations is must.

a) have the programme achieved as it was intended or expected?

b) how it can be revised in future?

c) does the programme stand as a model for other programmes?

d) Is the cost appropriate for the programme?

In short, summative evaluation reports on the effectiveness of the curriculum of a DE programme.

13.5.4 Impact Evaluation

It focuses on the preparation of the design of a programme in such a manner that learners' after completion of a programme uses their knowledge at their workplace. If a learner does make any difference after completion of the programme towards the real world situations, then the instruction has a very little value. Impact evaluation is a continuous process. This form of evaluation includes surveys and questionnaires, formal evaluation of research projects, etc. The report of this evaluation can be used to improve the curriculum, instructional contents, and assessment methods.

13.6 TOOLS AND TECHNIQUES USED IN EVALUATION

To go for a well designed evaluation plan, the focus should be laid in the following areas.

- Situational factors: administrative barriers, content of the course/programme, student expectations and demands
- The teaching learning process: issues appear during the distance learning
- Outcomes: learners' experience, change in behaviour and performance

There are two methods religiously followed by researchers across the globe to evaluate a programme/event/issue. They are; qualitative and quantitative methods. In both the methods, tools and techniques are required to do the evaluation tasks. The tools that are useful for collecting quantitative data for programme evaluation are;

a) structured questionnaire

b) tests and inventories

c) opinionnaire

Structured Questionnaire: This tool is used largely for data collection in education and training. It is used to get factual and practical information from the stake holders like learners, counsellors, etc. A structured questionnaire is normally given with 'yes' or 'no' type or multiple choice of responses to collect information. Through such questionnaire opinions, experiences, and reflections concerning a programme is collected. Since it is objective type question, it is easy for the respondent to answer with a little time. A properly constructed and appropriately administrated questionnaire is considered as useful data gathering tool.

Opinionnaire: In many cases, to evaluate a programme as a whole or of its components the evaluator needs opinions rather than facts. To collect opinion from the target audiences an opinionnaire is required. In this case, the evaluator has to take consideration the profile of participants' opinions about a programme. Participants are asked about their feelings/reactions about the programme.

Tests and Inventories: Tests are instruments to describe and measure a sample of certain aspects of behaviour. Tests contain a fixed set of items and procedures for administrating and scoring. Tests of several kinds can be used for evaluating the components of a programme. These are;

a) aptitude test

b) creative test

c) anxiety test

d) achievement test

e) intelligence test

An evaluator has to see his/her requirements and accordingly prepare the sample to test the behaviour that intended to measure. For example, an evaluator desires to measure the originality of distance learners on their assignment responses. In this case, he/she can use the 'creative test' to evaluate the issue.

Inventories are used to measure the typical behaviour of an individual in an ideal situation. By using inventories the effect of a course/programme on distance learners can evaluate. Inventories are like; interest inventory, personality scale, and attitude scale can be used during pre and post test of a programme to see the effect of the course or programme on the learners.

Qualitative methods on the other hand allow evaluators to study cases/issues in depth and detail, and help them to understand the situation from its root in a better way. Qualitative data are presented in words rather than numbers. The uniqueness of this method is, it presupposes the subjective experience of an evaluator on the issue before he/she started further evaluation.

Qualitative evaluation data describes the information about courses and the different learners' enrollment in the programme. This method allows evaluators to visit a field and collect first-hand observation data pertaining to programme activities. Apart from these activities they also treat themselves as 'participant observer'- who observes the clients while collecting the information from them.

A typical qualitative evaluation report provides the following (Pradhan, B., 2006).

a) detailed description of the programme implementation

b) analysis of programme processes

c) description about learners and their way of participation in the programme

d) description of how the programme has influenced learners

e) presentation of observed changes/outcomes of the programme.

The tools that are useful for collecting qualitative data for programme evaluation are;

- open-ended questionnaire
- interview
- observation
- case study
- focused group discussion
- journal/diary/logbook
- records/documents
- audio/video recording and photographs

Open-ended Questionnaire: Open-ended questionnaire seeks an analysis, elaboration and explanation. The data receives from this questionnaire represent the most elementary form of collecting qualitative data on an issue or an event. The evaluator of a programme who use this questionnaire for his/her tasks could able to know the learners' emotion, reaction, experience, perception, feelings about the study materials, counselling sessions, and so on.

Interview: In an interview conversation takes place for a specific purpose. Interview is of two kinds; structured and semi structured. In the case of earlier one, the evaluator may use a questionnaire and ask the learner to do one after another item, whereas in the later case, the learner is asked to explain something more on an issue pertaining to his/her programme of studies. Interviews can be organized in telephone, i.e. one-to-one basis, and virtual mode, i.e. one-to-many basis. This tool helps the evaluator to gather qualitative information from learners on their perception on programme activities and impact on the programme.

In an interview process the evaluator's job are to facilitate learners at the beginning, encourage learners to explain the issues on their own words, and actively listen their experiences on the programme.

Observation: Interview as a tool to evaluate components of a programme or a programme as a whole has its own limitations. It is due to the reason that though learners say many things about the programme, and the complexity of the programme but sometimes it is not understood clearly. Hence, observing a discussion will result to collect better qualitative data. The data obtained through observation should always found in an explanatory and detail form. Hence, it is easy for others to understand what happened during the programme and how it was occurred. The description of the observation must be accurate, based on facts and devoid from ambiguities. Thus, to collect correct observational data, the evaluator needs to be competent to do so.

Case Study: An evaluator is interested for a case study implies he/she desires to understand the situation in more detail and in depth. To collect data for a case study the evaluator can use various tools as discussed above, such as; opinionnaire, tests, inventories, observation, etc.

Focus Group Discussion: This tool is used for a group those interested on exploring on an issue given by the evaluators. During the discussion the evaluator discovers the feelings and opinions of learners about the given issue/problem and other matters. To record the group discussions evaluators can use the recorder and later can be transcripted and analysed. The data collects from the group discussions would not possible in the quantitative techniques in any ways.

Check your progress -3

Q1. How many types of tests available for an evaluator to evaluate a programme?

Journals/Diaries/Logbooks: In many programme of distance education, learners are asked to keep the records of their presence in the practical or/and lab sessions, submission of their assignment responses is known as 'logbook'.

When the record is prepared with some intentions of its future use in addition with the comments and reflections is identified as 'diary'. When the record is associated with analytical or evaluative thinking with

implications of events, then it is treated as 'journal'. In all these cases learners keep record of their actions, events, and thoughts separately. The information which stored in record form may be used for both formative and summative evaluation of a programme.

Records and Documents: The programme records and documents such as, agenda of meetings, schedule of virtual classes, online tutoring sessions, and institution's news latter can be used to gather qualitative data for evaluation purposes.

Audio-Video Recording and Photographs: A video programme does not only record the expressions and thoughts of the learners but also provides a way out to interpret the events and gather the interactive feedback. Photographs and audio recording are also used for accumulating qualitative data for evaluation purposes.

From the above analysis it is asserted that there are various methods and tools are used to collect data for evaluation purposes. But it is the evaluator who will choose the tools and techniques depending on his/her issue of evaluation.

Evaluating learners in the DE system is a crucial issue to consider and demands an understanding as follows.

13.7 EVALUATING DISTANCE LEARNERS

When we talk about evaluating learners in DE system, immediately the term-end-examination answer scripts comes to our mind and the grades given on the answer scripts. Further, the marks or grades received by the learners on their assignment responses are also added to that domain. But these two components are not the only to evaluate in learners context in the DE system. This is so because, there are other components associated with learners are also needed to evaluate, such as; performance on their study activities, uses of technology, problems find in their study skills, development of problem solving skills. Evaluation reports of these components aware the institution to know the various reasons for learners' success or/and failure in a programme.

However, the present discussion will focus on the grades or marks received each learner in his or her term end examination. There are different grades system adapted by different DE institutions depending on their curriculum need and learners' performance on a programme. For example, in some of the DE institutions/ universities in India adapted 05 grade scale and some are used 07 grade scale. Since each grade is defined in terms of marks in the numerical figure, in any context, it has its relevance and validity.

Table 01: 07 point grade scale of marking

Grade	Range of Scores	Grade Points	Interpretation
O	90-100%	6	Outstanding
A	80-89%	5	Excellent
B	70-79%	4	Very Good
C	60-69%	3	Good
D	50-59%	2	Satisfactorily
E	40-49%	1	Pass
F	Less than 40%	0	Fail

13.8 LET US SUM UP

Evaluation is an inseparable component of teaching-learning activity where judgments need to be made. The teaching and learning activities are the continuous process linked with the instructional decisions to promote learners' learning. The main concern of evaluation in DE is to judge the effectiveness of design instructions which relate to the quality concern matters of DE. In majority cases evaluation report is considered for taking a decision on the issue on which the evaluation is done.

According to Thrope, "Evaluation is the collection, analysis and interpretation of the information about any aspect of a programme of education and training, as part of a recognized process of judging its effectiveness, its efficacy and any other outcomes it may have" (Thrope, 1990, p.5).

Wottawa and Thierue (1990) made an attempt to explain the concept of evaluation which can serve different purposes. They are:

I. Evaluation has something to do with valuation

II. Evaluation serves to help in planning and deciding and thus has something to do with assessment and valuation of alternative ways of acting.

III. Evaluation is oriented towards aims and purposes. It primarily has the aim of checking practical measures, of improving them or of making decisions concerning them.

IV. Evaluation measures reflect the current state of techniques and research methods.

There are three principal reasons to carry an evaluation task in the DE setup. These are;

Providing: to demonstrate conclusively that something has happened as a result of learning or training and that may also linked to judgments about the value of the activity, whether the right thing was done, whether it was well done, whether it was worth the cost, and so on.

Improving: to ensure that either the current or future programmes or activities would be better than they are at present.

Controlling: to use evaluation data to ensure that an individual learner or trainee is performing up to the standard or that subsidiary learning/training establishments are meeting targets according to some centrally determined plan. (Biswas & Pradhan, 2002).

Programme evaluation is a management tool. It is a time bound exercise that attempts to access systematically and objectively the relevance, performance and success of ongoing and completed programmes and projects. Programmes must be evaluated to decide if the programmes are actually useful to the learners and whether they are achieving their stated objectives. The key elements that can be examined in programme evaluation are;

- the inputs that were selected and considered for the development of a programme
- the process that were used for the production of a programme
- the products and out puts that were achieved
- the outcomes/impacts affected to the learners.

There are four types of evaluation found in an educational programme. These are;

i) Document evaluation

ii) Formative evaluation

iii) Summative evaluation

iv) Impact evaluation

The tools that are useful for collecting quantitative data for programme evaluation are;

d) structured questionnaire

e) tests and inventories

f) opinionnaire

The tools that are useful for collecting qualitative data for programme evaluation are;

- open-ended questionnaire
- interview

- observation
- case study
- focused group discussion
- journal/diary/logbook
- records/documents
- audio/video recording and photographs

Check Your Progress: Possible Answers

Answer-01:

The basic components of a distance education programme are:

a) Objectives

b) Programme design (Curriculum of a programme)

c) Specified target learners

c) Processes

d) Outcomes

Answer-02:

Formative evaluation is a continuous activity. This evaluation is used for the purpose of improving the components associated in teaching and learning process at a distance. It helps to modify and improve the quality of the programmes while they are at the development stage. It includes reviewing all instructional materials, assessment tools and techniques, accuracy of instructional contents, ensuring all instructional objectives are covered through the instruction, monitoring learners' performance and learning strategies.

Answer-03:

Tests of several kinds can be used for evaluating the components of a programme. These are;

f) aptitude test

g) creative test

h) anxiety test

i) achievement test

j) intelligence test

13.9 UNIT END EXERCISE :

Q.1 What is evaluation? Explain the purposes of evaluation in distance education.

Q.2 What is a programme? How can you evaluate a programme in distance education.

References and Suggested Readings

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