
UNIT 2 THEORETICAL FOUNDATIONS

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2.0 INTRODUCTION

In Unit-1 you got an overview of the historical developments of ODE both at national and international levels. You know that distance education is very recent in comparison with centuries old conventional system of education. Distance

education has been evolving depending on the changing situations in which it is practised. It has its own norms, and follows its own approaches and methodology which are different from conventional system of education. It is non-conformist and non-traditional in nature. It makes adequate provision to impart instruction to learners at a distance by incorporating a variety of means and methods for didactic interaction between its students and teachers.

We know that distance education is an educational system supplementary, complementary and alternative to conventional / traditional system of education. As it stands today, it has evolved into an independent system of education, thanks to the growth of communication technologies and the cognitive sciences which are flexible enough to use the technologies for pedagogic purposes. It is an educational innovation to meet the ever increasing and diversified educational needs and demands of the society which are sequel to changing social, economic, and other conditions on one hand and technological developments on the other.

You need to understand the concept and theoretical foundations of distance education so as to appreciate its relative merits, its differences with other relevant terms and its footing in educational system. In this unit, we will therefore attempt to provide you an understanding about the concept of distance education and how it is different from the related terms in use including lifelong education and about different theories of distance education.

2.1 OBJECTIVES

This unit presents you an overview of the concept and theory of distance education from the perspective of various thinkers in the field. After having gone through this unit, you should be able to:

- explain the concept of distance education;
- distinguish the term 'distance education' from other related terms; and
- analyze different theories of distance education.

2.2 DEFINING DISTANCE EDUCATION

Distance education is a broader term both in terms of its denotation and connotation. Depending upon the knowledge, perceptions and points of view different people have defined distance education in different ways. It is, therefore, very difficult to arrive at a comprehensive definition that embraces all its connotations and denotations. Though it is difficult to come out with a succinct and universally acceptable definition of distance education, a few definitions offered by different people on different aspects of distance education would give us a comprehensive picture of the concept of distance education.

Staff Training and Research Institute of Distance Education (IGNOU, 1995) presented the definitions of distance education given by Wedemeyer, Moore, Dohmen, Peters and Holmberg along with a brief and precise comment on each of these definitions. Let us look at these definitions and the comments as they present broader aspects forming part(s) of definition of distance education.

2.2.1 Wedemeyer

Wedemeyer (1977) has used the terms ‘open learning’, ‘distance education’ and ‘independent study’ in his works, but favours the last term consistently. He defines independent study as follows:

“Independent study consists’ of various forms of teaching-learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from one another, communicating in a variety of ways. Its purposes are to free on-campus or internal learners from inappropriate class-placing or patterns, to provide off-campus or external learners with the opportunity to continue learning in their own environments, and to develop in all learners the capacity to carry on self-directed learning, the ultimate maturity required of the educated person”.

Notice that there is a suggestion for two kinds of ‘independent study’. One for the on-campus learner who may not want to and/or need to attend lectures regularly; the other for the off-campus learner who in any way is on his/her own. But, both these kinds are subordinate to the overwhelming idea of the ultimate social purpose of education — liberal education for social welfare. It is, therefore, not difficult to appreciate why in the United States of America, the expression ‘independent study’ is extensively being used to mean both ‘correspondence’ and ‘distance’ education. Besides, the expression does connote ‘open learning’ too, as one needs open access to education in order to become a truly ‘educated’ person.

2.2.2 Moore

Moore (1972 and 1973) is more explicit in his views on the characteristic features of distance education. According to him distance teaching may be defined as “the family of instructional methods in which the teaching behaviours are performed apart from learning behaviours, including those that, in a contiguous situation, would be performed in the learner’s presence, so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices.”

At least three features of distance education are clearly discernible in his definition:

- i) the teaching behaviour remains separated from the learning behaviour (e.g. correspondence courses);
- ii) fact-to-face teaching and learning forms a part of the system (e.g. contact programmes); and
- iii) electronic and other media may be used to effect learning and teaching (e.g. use of audio and video cassettes).

The first two of these features are similar to the ones which Wedemeyer has pointed. And if we interpret Wedemeyer’s expression, ‘communicating in a variety of ways’, broadly even the third feature listed above finds a place in his (Wedemeyer’s) definition. Whereas Wedemeyer focuses on the sociological aspect, Moore highlights the communicational (pedagogic) aspect.

2.2.3 Dohmen

Dohmen (1977) defines distance education as “a systematically organised form of self-study in which student counselling, the presentation of learning material and securing and supervising of students’ success is carried out by a team of teachers, each of whom has responsibilities. It is made possible at a distance by means of media which can cover long distances”.

This definition places emphasis upon the importance of self-study. This feature of distance education is emphasised in Wedemeyer’s definition too. Like Wedemeyer and Moore, Dohmen also emphasises correctly the use of the media which enables distance education to reach out to the consumer of education.

We notice that all the three thinkers quoted above focus, either explicitly or implicitly, on these two aspects of distance education:

- i) self-study, and
- ii) the use of media for educational communication.

The point being made is that as against the oral communication used in the conventional classroom type of teaching, which is not a process of self-study, distance education uses print, electronic media and oral or face-to-face situations for purposes of self-study which is the basis of distance education.

Now, we shall turn to a definition that presents a theoretical frame for the entire process of distance education.

2.2.4 Peters

Peters (1973) defines distance education as “a method of imparting knowledge, skills and attitudes, which is rationalised by the application of division of labour and organizational principles as well as by the extensive use of technical media, specially for the purpose of reproducing high quality teaching material which makes it possible to instruct great numbers of students at the same time wherever they live. It is an industrialised form of teaching and learning.”

Peters’ definition is interesting because; besides the use of technical media and mass education, he emphasizes a specific ethos which relates distance education to the nature of the industrial society. It is also possible to view distance education as a system arising from the new and specific needs of an industrialising society in which almost all activities, including education, have to fit into time-schedules that are geared to more rigid working and learning conditions.

2.2.5 Holmberg

Holmberg (1981) defines distance education as the kind of education which covers “the various forms of study at all levels which are not under continuous, immediate supervision of tutors present with their students in lecture rooms on the same premises, but which nevertheless, benefit from running, guidance and tuition of a tutorial organisation”.

What is interesting about Holmberg’s definition is that distance education is being looked upon as an *organised educational programme*.

Let us now look at the definition offered by Keegan who culled out different aspects of distance education as found in different definitions and put them together in one.

2.2.6 Keegan

Keegan (1986) offers a comprehensive definition of distance education that encompasses all the essential elements. He defines distance education as a form of education characterised by:

- 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 the planning and preparation of learning materials and in the provision of student support services; that distinguishes it from private study and teach-yourself programmes;
- the use of technical media; print, audio, video or computer to unite teacher and learner and carry the content of the course;
- the provision of two-way communication so that the student may benefit from or even initiate dialogue; this distinguishes it from other uses of technology in education.
- the quasi-permanent absence of the 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.

This comprehensive definition of Keegan includes all the essential elements, aspects or characteristics of distance education as can be found in different definitions given above. As Keegan (1986) points out it is important to be able to say whether distance education is to be regarded as the same or different from University without walls, extra-mural studies, experiential learning, off-campus education, open learning, extended campus, etc. Keegan takes into account all the recent developments in communications and also theory building in this field. You will know, in brief, about these terms and few other related terms in the following section.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

1) i) Which thinker said that there is a need for human support in an industrialized teaching-learning system?

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ii) What is common in the definitions of Wedemeyer, Moore and Dohmen?

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2.3 RELEVANT TERMS EXPLAINED

The term ‘distance education’ has been misunderstood by many people as a synonym to terms such as non-formal education, non-traditional education, open education, correspondence education, and so on. Here, you may recall the other terms used by Keegan and other thinkers in the previous section as well. All these terms currently in use create confusion regarding their precise meaning. This happens, particularly, when the terms are inadequately defined and/or improperly understood.

I believe you are, perhaps, clear about the concept and use of the term ‘distance education’ and not confused with related terms in the above paragraph. If you are still confused, do not worry. The following brief discussion on related terms will clear your confusion.

2.3.1 Non-formal Education

Non-formal education, as implied by the term, is supposed to be available outside the formal or conventional system and with enhanced access to many learners. It indicates that it is an education free from formalities or with relaxed formalities to make education more accessible to different kinds or types of learners.

Some call non-formal education non-traditional education. According to Hartnett (1972) *non-traditional education* is a set of learning experiences free of time and space limitations. Coombs et al (1973) define non-formal education as “any organised educational activity outside the established formal system — whether operating separately or as an important feature of some broader activity — that is intended to serve identifiable learning clienteles and learning objectives”. To clarify this definition further, the same authors distinguished between informal and formal education. Informal education is “the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment from family and neighbours, from work and play, from market place, the library, and the mass media”. Formal education is defined by them as “the hierarchically structured, chronologically graded ‘education system’ running from primary school through the university and including, in addition to general academic studies, a variety of specialised programmes and institutions for full-time professional education and training.

However, Radcliffe and Colletta (1989) maintain that “in practice no hard lines of demarcation exist between formal, non-formal and informal education: while many activities may be perceived as falling exclusively into one category alone, many share aspects of two or all of them”. In other words, it is implied that the theoretical distinctions between the concepts of formal, non-formal and informal education are accepted.

Non-formal education can be organised at any level, ranging from primary education in schools to higher education. In Universities or institutions of higher learning, Open University is more current term coined to an institution providing the higher education in non-formal and open manner. It enhances possibilities for providing relevant, flexible, systematic and diversified education for the learners of diverse needs and interests.

2.3.2 De-schooling

De-schooling is the philosophy that underlines the concept of non-formal education. In simple terms it means bringing education out of the formal confines of the school. In other words, it espouses free education shorn of all rigidities of formal system like one point entry or single point admission, definite classroom, regular attendance, definite and common syllabus, rigid timings / periods of teaching and learning, examinations and so on.

As early as the 1970s, Ivan Illich was beginning to imagine an educational future in which the proprietary knowledge relations of the conventional classroom were transformed: “A major illusion on which the school system rests is that most learning is the result of teaching. Teaching, it is true, may contribute to certain kinds of learning under certain circumstances. But most people acquire most of their knowledge outside of school, and in school only in so far as school, in a few rich countries, has become their place of confinement during an increasing part of their lives. Most learning happens casually, and even the most intentional learning is not the result of programmed instruction.” (<http://newlearningonline.com/new-learning/chapter-2/ivan-illich-on-deschooling>).

What then is the difference between non-formal education, de-schooling and open learning? In fact, these terms are synonymous and espouse the same philosophy. Non-formal education emphasises on freeing of educational process from the formalities / rigidities; while ‘de-schooling’ emphasises on bringing the education outside the physical environs of the school which, in broad sense, includes all the educational institutions.

Is correspondence education a step towards that direction? To answer it, let us understand what correspondence education is.

2.3.3 Correspondence Education

The humble beginning of correspondence education can be traced back to 1840 when Isaac Pitman began to teach shorthand by post (Morris, 2011; Rowntree, 1992). Pitman used the post to reach his many learners who equally got back to him through the same medium. After this initial experience the practice of correspondence education spread like wild fire throughout the world and very soon, all kinds of subjects and topics were taught through correspondence education.

Let us look at some progressive definitions and practice of correspondence education. Correspondence education consists of “batches of study materials sent by post to the student who then completes the required reading and exercises, and returns the latter to the college for assessment by an appointed personal tutor. The exercises are marked and the student receives comments, advice and general guidance” (Legge, 1982).

From the above definition, the following essential elements can be observed:

- i) supply of study materials to students by post;
- ii) reading and writing exercises / assignments by students; and
- iii) assessment and feedback by tutor on exercises/assignments to the students.

Though this definition ignores the need for face-to-face contact it indicates that there is organized instruction and education through post.

Correspondence education is the education conducted by the postal services without face-to-face contact between teacher and learners. Teaching is done by written or tape-recorded material sent to the learner whose progress is monitored through written or taped exercises sent to the teacher who corrects them and returns them to the learner with criticism and advice. It is also called correspondence study (Titmus, 1989). We can observe that this definition is also silent on face-to-face contact and human element. Yet it is slightly more advanced in the sense that it brings in electronic media within the purview of correspondence education.

From the above definitions, one thing that is very clear about the correspondence education is that it is a means of education for those who are literate with mastery over written language and with some educational qualifications or skill already possessed by them. Usually these literate are relatively more mature and would be in a position to learn on their own through self-study or self-understanding of the materials supplied to them, and there may or may not be a provision for face-to-face contact between the teacher and the learner. Generally, these printed learning materials are prepared by a few trained subject experts and are supplied to the learners by post for reading, alongside giving them some writing assignments. In general and in order to develop the students the feel of formal school/classroom atmosphere, contact classes/programmes are conducted at some convenient places where the learners and the instructors will have the chance for mutual interaction. Towards the end of the course, examinations will be conducted and the certificates, diplomas and/or degrees are awarded to the qualified candidates / learners.

How is correspondence education different from distance education?

Difference between Correspondence Education and Distance Education

By combined reading of Section 2.2 with sub-section 2.3.3 above, it becomes easy for us to distinguish correspondence education from distance education. In correspondence education, print is the only medium of instruction and the printed lessons / materials are the only source of learning with or without provision for face-to-face contact between the students and teachers and among students. In distance education, besides the print medium, audio, video, radio, television, telephone, the computers, etc., form the instructional media. In both correspondence and distance education printed materials are sent by post, but distance education employs a multimedia approach including human (face-to-face) contact for instructional purposes. The student support services are more improved in distance education than in correspondence education. Both, correspondence education and distance education impart prescribed knowledge for issuing of certificates, but distance education aims at varied goals including training for better job prospects and job enhancement, change in attitudes, personal growth, etc. Though procedure of admission and examination are same in both correspondence education and distance education, the former is usually offered as an extension of conventional college / university education while the latter is offered by institutions which are mostly independent and autonomous. Thus, you have noticed that distinction between correspondence and distance education lies in their aims, approaches, methods, media and orientation.

Is distance education and distance learning one and the same?

2.3.4 Distance Learning

In distance education the emphasis is both on teaching and learning i.e. there is organized teaching to promote learning among the distance learners. In distance learning the emphasis is more on learning. In distance learning the focus is more on learning than on teaching. Distance learning assumes that in an educational enterprise the responsibility to learn rests more with the learner while the distance teacher simply plays the role of promoter or facilitator of learning who is usually separated from the learner by time, space and distance. Thus, in distance education, the distance teacher enjoys the freedom to choose his methodology, media, materials and support services that help learners to learn. Distance learning assumes that the responsibility to learn is mainly with the distance learner including the learner's choice and decision to enroll for a particular course or programme as well as the choice of media through which to learn what, how and with what pace.

While most psychologists would submit that learning means acquisition of information and knowledge that lead to change in behaviour (and this is the aim of education and the objective of distance education), distance learning leaves room for the learner to impute the information and material presented, based on his own understanding that may be different from the understanding the facilitator had intended. Additionally, the learner is at liberty to use his understanding and the information presented in any constructive way which suits his own will, circumstances and environment without recourse to the facilitator or institution that originated the learning material. (<http://cdn.intechopen.com/pdfs-wm/39188.pdf>). Thus, distance education presupposes organized teaching and learning, distance learning enjoins freedom and responsibility to the learner.

Then, how is 'distance learning' different from 'open and distance learning'.

2.3.5 Open and Distance Learning

Distance learning need not be open at all (Rowntree, 1992:30). This suggests that there exists a difference between "Open Learning" and "Distance Learning"; for many decades, the term "Distance Learning" has been used to describe learning organised, dispensed and acquired from a distance; the prefix "Open" became attached to Distance Learning towards the end of the 20th century as a result of three significant developments, namely, criticisms against the formal school system, GATT (General Agreement on Tariffs and Trade) and Globalisation. (<http://cdn.intechopen.com/pdfs-wm/39188.pdf>). It means distance learning can be open or more formal.

In 1994, when the General Agreement on Tariffs and Trade (GATT) made education an internationally saleable commodity; this agreement had profound positive effect on the development of Open and Distance Learning (Preece and Biao, 2011) and much to encourage educational interaction among societies that have not dreamt of educational collaboration as a result of the great geographical distance separating them (Ibid).

Learning opportunities thus opened up to many inhabitants of the Earth like it never did before and irrespective of their geographical location. The concept of

open learning then entered the educational diction and the prefix “Open” was added to “Distance Learning” to signify that, apart from being learning managed from a distance, it is equally “Open Learning” wherein “Open Learning” is understood to be,

“... arrangements to enable people to learn at the time, place and space which satisfy their circumstances and requirements. The emphasis is on opening up opportunities by overcoming barriers that result from geographical isolation, personal work commitments or conventional course structures which have often prevented people from gaining access to the training they need,” (Rowntree, 1992, See <http://cdn.intechopen.com/pdfs-wm/39188.pdf>).

And to be:

“... a wide range of learning opportunities that both aim to assist learners in gaining access to knowledge and skills they would otherwise be denied and to give learners the optimum degree of control over their own learning.” (Dixon, 1987; See <http://cdn.intechopen.com/pdfs-wm/39188.pdf>).

An essential characteristic of open learning is the removal of barriers to access and also to learning in terms of time, place, pace, technology. Ideally speaking, no-one person should be denied access to any open distance learning programme. But the fact is, no ODL programme is absolutely open in the true sense of openness. In other words, ‘open learning’ and ‘distance learning’ must be scalable depending upon degree of flexibility that is possible in given contexts.

2.3.6 Open Education

We are all aware that formal educational institutions have their formalities and restrictions which are related to admission, number of seats, course duration, instruction, examination and other procedures. If these restrictions and formalities are relaxed or removed learning and education become more flexible and open.

According to Jarvis (1990) *Open learning* is the title given to more flexible methods of study and teaching in which there is openness in access, content, delivery system and assessment. There are colleges or provider-based systems in which learners attend centres; local-based systems with ‘flexi-study’ and support but at which the learning is undertaken in the learners’ homes, and ‘distance learning systems’. Openness is, in fact, characterised by relaxed or no rigid entry qualifications, learning is according to one’s own pace and convenience, flexibility in the choice of courses, and use of modern and appropriate educational and communication technology. Open learning/education can be offered through distance learning systems or the contiguous / conventional system by introducing an element of openness or flexibility. It refers to the philosophy or the approach which can be practised in both the situations.

Escotet (1983) distinguishes open education from distance education. For him, open education is particularly characterized: by the philosophy of removal of restrictions, excursions and privileges; by the accreditation of students’ previous experiences; by the flexibility of the management of the time variable; and by substantial change in the traditional relationship between professors and students.

On the other hand, distance education is a *modality* which permits learners to learn from their own places of living or work. Distance education, thus, tends to encourage open education.

Now, you are, perhaps, clear about the two concepts — ‘distance’ and ‘openness’. While ‘distance’ refers to the *mode*, ‘openness’ refers to the *philosophy*. Openness is seen in terms of flexibility or relaxation in or lack of restrictions. Whereas the formal/conventional education is not necessarily closed, distance education may or may not be open. Open education is possible by both conventional and distance education institutions. But, in practice, it is true that due to their inherent character the formal institutions could not relax the restrictions to the extent that the distance education institutions could in matters of admission, curriculum, choice of courses, course combinations, examinations, evaluations, etc.

There are also many other terms such home study, independent study, off-campus studies, extra-mural studies, and external studies which are often loosely used as synonymous to distance education or open education. These terms are briefly explained below.

- i) **Home study:** It is an education designed for students to undertake study at home and to be away from the educational institution. This term is localised mainly in Europe, probably under the influence of Swedish schools of correspondence courses. However, it is being used at a few places in Canada and the USA also.
- ii) **Independent study:** We have read about Wedemeyer’s definition of independent study which is very clearly described. In fact, it is through his writings that this term has become current in North America.
- iii) **Off-campus studies:** To denote a contrast with on-campus traditional type of studies the expression ‘off-campus studies’ is widely used in the Pacific region — Australia and South-East Asian countries.
- iv) **External studies:** This 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 associated with the system necessarily. Australia adopted the term for obvious reasons and it is obvious too that the term does not connote all that is meant by the term ‘distance education’ today.
- v) **Extra-mural studies:** This expression is used in New Zealand to convey what distance education means to most of us.
- vi) **University without walls:** This is an ‘open learning’ movement in America which gives academic credit for career and life experiences and organises ‘teaching’ and ‘learning’ courses.

With due regard to the local currency of these terms, there is no doubt that they are all part of internationally known terms referring to open and distance education (ODE).

Check Your Progress

- Notes:** a) Space given below the question is for writing your answer.
 b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.
- 2) How is distance education different from correspondence education? Explain the terms ‘distance’ and ‘open’ in this context.

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2.3.7 Open and Distance Education

The term ‘open and distance education’ is the effect of combined expression of open education / open learning and distance education. It means a combination of *philosophy* (underlying the open learning or open education) and *mode* (underlying distance education). It means, Open and Distance Education i.e. *open education through distance mode*. It also implies that distance education need not always be open in real terms of the characteristics of ‘distance’ and ‘openness’, since openness of a programme is a relative character and all distance education programmes need not be and cannot be open to the same extent. In other words, distance education too can be more conventional in nature if it is based on rigid criteria; thus implying that distance education can be ‘*open distance education*’ or ‘*conventional distance education*’. Nevertheless, there is no single distance education programme which is absolutely open, as it is always considered and expressed in its relation with any other programme(s).

Differences and similarities among the above terms: For more clarity we always need to understand the terms, ‘open learning’, ‘flexible learning’, ‘online/virtual learning’, ‘open education’ and ‘distance education’ in their relative and comparative perspective because these terms are often used to mean the same thing by many, though there are significant differences among them. Thus the differences and similarities between and among these terms is in terms of extent of ‘openness’, ‘distance’, ‘flexibility’, ‘online’ and ‘virtuality’.

2.3.8 Lifelong Learning/Education

The belief that education is a lifelong process, not limited to childhood and youth, is not new. This is because of the fact that an individual spends more number of years in his adulthood than the childhood and youth and his performance in all the activities he is engaged in depends upon the nature and quality of his education in the functional areas. And, the conventional system of education has failed in many aspects and rendered itself inadequate to meet the changing educational needs and demands of different kinds of individuals. The important among these are the limited aims and objectives, inconveniences and shortcomings in didactic process, irrelevant curricula, and failures of the

conventional system as a whole. This has led to ‘a crisis of education’ and the system could not enable the individuals to face the challenges of modern and changing life. In the process of finding solutions to the crisis and to strive towards a learning society or an educative society, the concept of lifelong education found an increasing recognition and acceptance all over the world.

The UNESCO report entitled “Learning to be” (Faure, 1972) is the leading policy document on lifelong education. It contains a coherent philosophy developed about man, education and society to which the idea of lifelong learning was related. It adopts an optimistic view of education to change society. Eagerness to learn, *‘libido sciendi’* is deeply rooted in human nature and once external obstacles are removed it will provide the necessary motivation for lifelong learning. The society of the future will be a ‘learning society’ and the culture of future society will be “scientific humanism”. According to the report “every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the key to the learning society. Lifelong education will be the master concept for educational policies in the years to come for both developed and developing countries”.

2.3.8.1 Concept

Let us look through some of the definitions of lifelong education for a better understanding of the concept. UNESCO (1976) defines ‘lifelong education’ as a process that begins in childhood and continues throughout one’s life. It includes formal, non-formal and informal education received by the individual. The educational and learning processes in which children, young people and adults of all ages are involved in the course of their lives, in whatever form, should be considered as a whole. Dave (1976) regards lifelong education as “a process of accomplishing personal, social and professional development throughout the life-span of individuals in order to enhance the quality of life of both individuals and their community. It is a comprehensive and unifying idea which includes formal, non-formal and informal learning for acquiring and enhancing enlightenment so as to attain the fullest possible development at the different stages of life. It is connected with both individual growth and social progress”. According to Jarvis (1990) lifelong education is any planned series of incidents having a humanistic bases directed towards the participants learning and understanding that may occur at any stage in the life-span. Reviewing certain approaches and underlying philosophies he expresses that the lifelong education is a concept and an ideal which remains rather meaningless unless it is actually implemented.

Though the terminology in the definitions is different, we can clearly understand lifelong education as a concept that:

- includes all types and processes of education of all people of all age groups;
- is not intended to cover a once for all experience confined to the initial cycle of full-time education that commenced in childhood, but a process that must continue throughout one’s life;
- encompasses continuous learning process which needs to provide specific opportunities for further and new education, both vocational and general, to each individual throughout life;
- attempts to keep the individual abreast of technical and social change in order that he may adopt to changes in his own circumstance (marriage,

parenthood, professional situation, old age, etc.) and may achieve his fullest potential for individual development; and

- embraces both individual's intentional and incidental learning experiences.

Cropley (1982) sums up “the emerging concept of lifelong education in three words indicating the main directions of change and emphasis: expansion, innovation and integration. *Expansion* means, learning process in time, in the multiplication of learning situations covering entire lifespan of the learner, in encompassing and unifying all its stages and forms and in offering all kinds of opportunities. *Innovation* finds alternative structures and patterns of learning, providing meaningful interrelationships between general and professional education, and adapting the present practices to new needs. *Integration* refers to, apart from interdisciplinarity, the educative potentialities of the home, the local community, the larger society, the world of work and the mass media in order to make the educational process more effective and to create new learning situations.

We may now understand that lifelong education, in its broadest sense, includes all the processes by which an individual acquires education continually or continuously throughout life for necessary career development and valuable personal enrichment. It means far from being limited to the period of attendance at school education, learning should extend throughout life, include all skills and branches of knowledge, use all possible means and give the opportunity to all people for full development of the personality.

However, ‘education permanente’ a French term for ‘lifelong education’ specifies that higher education must be open to former students as well as mature students who have not previously had the opportunity to have higher education, even if they do not have necessary entrance qualifications. It implies that the education system needs to be remade to meet people’s lifelong but discontinuous needs, which might recur in personal, social, academic or vocational life.

There appears to be two approaches to lifelong education in contemporary literature. One that stretches ‘initial education’ to further it called *further education* and the other that stretches still forward throughout the life-span using the idea of *continuing education*. The aim of lifelong education should be to increase “each individual’s possibilities of expressing himself or herself on the intellectual, emotional, social and professional planes, as well as in relationship between the sexes, between the parents and children and so forth” (Titmus, 1989).

Lifelong education is, thus, the one where there is provision and utilisation of educational experiences throughout a person’s life. It implies learning throughout life and, therefore denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential inside and outside the education system. It intrinsically involves a radical reform of organisation; form and content of all other phases of education, and also implies a greater recognition of the educational functions of non-educational agencies such as business, industrial and agricultural firms.

2.3.8.2 Principles and Characteristics

Lifelong education calls for substantial changes in objectives, structures, curricula and methods within a global context of lifelong education. Since all aspects of education and life are interwoven in an organic whole, vital reforms are essential

not only in the first phase but also in adult education to make it a well organised system.

Most of the people spend much more of their lives as adults than as children and learning in adulthood plays an essential role. Therefore, it is obvious that adult education would be a major element in any system or scheme of lifelong education. The key principles of lifelong education, according to Titmus (1989), are that:

- a) the procedures for fostering lifelong education should be integral part of any education system;
- b) all elements of education should have equal status as that of schools and universities: and
- c) learning should be naturally and normally engaged in by all adults — universal education for adults just as universal education for children.

All these principles call for a comprehensive and unifying or integrated system of education that can engage all individuals in continuous learning process to make the society a learning society.

An idea of the characteristics of lifelong education may provide better understanding of the concept. The relevant definitive characteristics of lifelong education have been summarised by Dave (1973). They include:

- a) totality and universality in settings covered and clientele served;
- b) dynamism and diversity in teaching and learning methods and materials; and
- c) focus on promotion in learners of the personal characteristics necessary for lifelong learning (motivation, self-image, values, attitudes, and the like).

But, Cropley (1982) puts major characteristics of lifelong education in an elaborated manner. According to him lifelong education provides for:

- i) continuous learning throughout life — to continue education beyond childhood and youth and throughout adulthood;
- ii) needs of the very young — with a concern for very young children as their education lays down a basis for the later psychological development;
- iii) needs of adults — to, promote high levels of personal initiatives for continued development to meet needs of adults;
- iv) coordination of psychological domains — to follow the principle of horizontal integration to coordinate many domains of psychological functioning of a person;
- v) education for personal growth — to foster intrapersonal/intra-psychic growth;
- vi) education for social development — to educate on variety of roles and their changing nature, and to enhance ability to adopt to changed roles; and
- vii) education for equity — to provide equal access to education of all people at all stages.

According to the Report to UNESCO of the International Commission on Education for the Twenty-first Century, titled the “Learning: The treasure within”

(UNESCO, 1996) the following four pillars of learning are fundamental principles for reshaping education:

- ***Learning to know:*** to provide the cognitive tools required to better comprehend the world and its complexities, and to provide an appropriate and adequate foundation for future learning.
- ***Learning to do:*** to provide the skills that would enable individuals to effectively participate in the global economy and society.
- ***Learning to live together:*** to expose individuals to the values implicit within human rights, democratic principles, intercultural understanding and respect and peace at all levels of society and human relationships to enable individuals and societies to live in peace and harmony.
- ***Learning to be:*** to provide self analytical and social skills to enable individuals to develop to their fullest potential psycho-socially, affectively as well as physically, for an all-round ‘complete person.

From the above discussion, you might have clearly understood that lifelong education requires radical transformation of the concept of education, complete overhaul of all forms of education and training needed by modern human beings in all stages of their life. The process of reforming the entire education system is not an easy task, as it has many implications for different elements of the system. We shall consider some of them here.

2.3.8.3 Implications for Implementation

Though the concept has achieved wide acceptance in theory, in practice it still falls far short of theory. This is so because the implementation of lifelong education has sweeping implications for learners and learning processes, teachers and the instructional methods, educational institutions and evaluation of lifelong learning. Knapper and Cropley (1985) and UNESCO (1996) discuss these implications in detail from basic education to university education in the efforts for educating the global village. A summary of details of these implications are presented below in very generalized form for your clear understanding of the same.

i) Learners and learning processes

All learners acquire education through formal, informal and non-formal processes of learning, when they are engaged in different activities in their life, though the proportions of time spent on particular kind of activities may differ from learner to learner. Provision of such comprehensive activities or experiences requires curricular restructuring with proper vertical and horizontal integration of the curricular experiences covering all forms of education in the day to day life and across the life of all kinds of learners — full-time and part-time, conventional and nonconventional, old and young, and so forth.

ii) Teachers and instructional methods

For promoting lifelong learning among the heterogeneous groups of learners the instructional strategies employed should be substantially different, diversified and sustainable to suit to their age, background, experiences, knowledge, etc. Cheap, individualised and mass instructional strategies and methods that impose less physical constraints of time and locations of learning

that link education and work need to be used for instruction. In tune with these, redefining the changing roles and responsibilities of teachers and promoting the acceptance of these are very crucial in this context of reforms.

iii) Educational institutions

The change in the nature and character of teaching and learning processes and methods, the change in the roles and functions of teachers and learners have their own implications for educational institutions. This would involve a transformation of existing institutions and/or starting of new kind of institutions with a proper mechanism for integration. Practical problems and difficulties in bringing about changes or in transforming admission policies and procedures, provision of teaching-learning facilities, achieving coordination among different units in the institutions and among different institutions, and in planning, financing and administering different tasks are to be taken into account.

iv) Evaluation

Since the lifelong education involves a transformation of educational institutions, more particularly institutions of higher learning, it calls for innovative approaches to evaluation of the learners, teaching-learning processes, programmes, procedures and the system/institutions as a whole. This would help in reviewing, redirecting and furthering reforms in the system of lifelong education.

We can understand that the instructional approaches such as distance and open learning with focus on individualised learning used by distance and open universities and other higher educational institutions of the kind all over the world embody some principles of lifelong education. Though it is a fact that the practice of lifelong education falls far too short of its theory, it is also true that, nowadays, lifelong education has become a reality to a great extent, and a precisely identified guiding principle for educational policy.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

3) How do you relate the term ‘lifelong education’ with the different terms you studied in previous section? Specify implications for implementation of lifelong education.

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2.4 THEORIES OF DISTANCE EDUCATION

You know that distance education had its roots in the traditional practices associated with “correspondence courses” which created a new *modus operandi* leading to large-scale reproduction of teaching and learning practices. As a consequence of this phenomenon, a new model of distance education emerged, with the concept of industrialized education, having the core premise of creating massive economies of scale through standardization of production and distribution processes of education.

A discourse on theoretical foundations of distance education shall acquaint you with the most general issues and principles of distance education. In order to provide you an overview of significant ideas and various distinct lines of thought pertaining to this discipline of distance education, we will look at the seminal literature on distance education. Section 2.3 has provided you a thorough understanding of the concept of distance education, including the relevant terms. The distinct lines of thought presented in this section will enable you to get acquainted with the underlying theory and philosophy of distance education and also develop useful insights into the efficacy of the distance mode of teaching and learning.

Without a strong base in research and theory, distance education has struggled for recognition by the traditional academic community (Garrison, 1990; Hayes, 1990; mentioned at <http://www.aect.org/edtech/ed1/13/13-03.html>). However, since the early 1970s, when British Open University became an important reference in the domain of open and distance education, a growing body of academic research has dealt with theory building regarding research on distance education (Evans & Nation, 1990; Garrison, 1993, 2000; Holmberg, 1983, 1995; Keegan, 1993; Moore, 1973, 1990; Peters, 1983, 1989, 1993; mentioned at <http://www.aect.org/edtech/ed1/13/13-03.html>).

According to Evans & Nation (2003, p.789), any useful understanding of educational endeavours requires a deep consideration of the cultural, economic, and political contexts in which they occur. All theories being analyzed here hold that distance education should be treated as a phenomenon arising from socio-economic and other conditions typical of the 20th century.

2.4.1 Distance Education Theory Development: An Overview

It is an established fact that without a strong base in research and theory, distance education has struggled for recognition by the traditional academic community. As distance education struggles to identify appropriate theoretical frameworks, implementation issues also become important. These issues involve the learner, the instructor (the teacher), and the technology. Traditionally, both theoretical constructs and research studies in distance education have been considered in the context of an educational enterprise that was entirely separate from the standard, classroom-based, classical instructional model. Hence, our attempt here is to understand coherent, rigorous and valid theory or theories that formed the basis for the practice of distance education, which has grown tremendously in terms of students enrolment and the number of distance education institutions all over the globe.

The theoretical foundations of distance education describe and inform us about its practice and provide the primary means to guide about its future developments as well. With a view to give you a comprehensive overview of development of theories and the philosophies that underlie distance education, important theories are chosen and discussed below. Some of these ‘theories’ and their proponents are given below.

Table 2.1: Distance education: Thinkers and theories

S.No.	Name of the thinker	Major theoretical contribution
1.	Charles A. Wedemeyer	Independent study
2.	Michael G. Moore	Independent study (Revisited) <ul style="list-style-type: none"> • ‘Distance’: a function of ‘dialogue’ and ‘individualisation’ • Learner autonomy
3.	Otto Peters	Industrialised form of teaching <ol style="list-style-type: none"> i) division of labour, ii) mass production, iii) systematization, and iv) structure of buildings.
4.	Borje Holmberg	Guided didactic conversation
5.	John A. Baath	Two-way postal communication <ol style="list-style-type: none"> i) effective tutor-comments, and ii) pre-enrolment counselling.
6.	David Sewart	Continuity of concern <ul style="list-style-type: none"> • Human element in an industrialized form of learning and teaching
7.	Garrison and Baynton,	Communication and Learner Control <ul style="list-style-type: none"> • macro-structural level elements • micro-level transactional elements
8.	Keegan	Re-integration of teaching and learning acts <ul style="list-style-type: none"> • separation of the teaching acts in time and place from the learning acts • re-integration of teaching and learning acts
9.	Simonson and Schlosser	Equivalence of Learning Experiences <ul style="list-style-type: none"> • Local learners • Distance learners

Let us now discuss in detail the relevant theories of distance education that helped it evolve into a new educational phenomenon.

2.4.2 Theory of Independent Study

Theory of Independent Study was formulated by Charles A. Wedemeyer, Professor of Education at the University of Wisconsin-Madison, a pioneer in the field of independent and distance learning and is considered the father of modern distance education.

As early as 1965, Wedemeyer predicted today’s e-Learning (<http://www.uwex.edu/disted/conference/wedemeyer/aboutcw.cfm>):

“... the extension student of the future will probably not ‘attend’ classes; rather, the opportunities and processes of learning will come to him. He will learn at home, at the office, on the job, in the factory, store, or salesroom, or on the farm.”

“.. the teacher will reach students not only in his own state or region but nationally as well, since the media and methods employed by him in teaching will remove barriers of space and time in learning...”

The term independent study was used by Wedemeyer (1973; mentioned at <http://www.uwex.edu/disted/conference/wedemeyer/aboutcw.cfm>) to describe distance education at the college or university level. He considered the independence of the student as the essence of distance education and thus preferred the term “independent study” to distance education. He was critical of contemporary patterns of higher education, which failed to utilize modern technologies in ways that could alter an institution.

Wedemeyer proposed the separation of teaching from learning as a way to break education’s “space-time barriers.” He suggested six characteristics of independent study systems. (<http://www.c31.uni-oldenburg.de/cde/found/simons99.htm>):

- 1) The student and teacher are separated.
- 2) The normal processes of teaching and learning are carried out in writing or through some other medium.
- 3) Teaching is individualized.
- 4) Learning takes place through the student’s activity.
- 5) Learning is made convenient for the student in the student’s own environment.
- 6) The learner takes responsibility for the pace of learning, with freedom to start and stop at any time.

Wedemeyer noted four common elements of every teaching-learning situation: a teacher, a learner or learners, a communications system or mode, and something to be taught or learned. He proposed a reorganization of these elements that would accommodate physical space and allow for greater learner freedom which is key to the success of distance education.

Wedemeyer is a liberal in outlook which is manifest in his work in the field of distance education. His contribution to the theoretical foundations of distance education comprises his analysis of the difference between distance education and the conventional face-to-face education. His analyses, while focusing on the major distinctions/differences between the two, present three key notions:

- i) autonomy of the learner
- ii) distance between the teacher and the learner, and
- iii) structural system,

which have since become the very bases of the overall concept of distance education. We shall discuss these three notions below and thus introduce you to what may be called Wedemeyer’s theory of ‘independent study’.

a) **Autonomy of the learner**

Wedemeyer's definition of independent study (see sub-section 2.2.1) gives us a clue for understanding the concept of learner autonomy. According to him the teaching/learning arrangements should be such that the teachers and learners stay away from each other, and the didactic communication should take place in various ways to facilitate learning activities of both the on-campus and the off-campus students. Such arrangements should provide learning opportunities in one's own familiar situation and help one in building up through self-directed learning, the maturity which characterises an educated person.

The obvious basis of 'independent study' is Wedemeyer's liberal educational philosophy for 'continuing education'. He thinks that factors like geographical remoteness, poverty or any other type of social disadvantage, poor health or disadvantageous physical conditions, or any psychological conditions that inhibit one from undergoing institutionalized education, should in no way stand in one's way to achieve one's educational goals. The immediate pedagogical implication of such a philosophy is that we look for unorthodox means and modes of educating all those who are willing to be educated. If one cannot go away from one's place of work or residence because of one's economic or physical conditions, if one cannot attend a class because the classroom atmosphere is psychologically or sociologically hostile to one, or just because of compelling social commitments one cannot fit into the traditional school, college or university modes of education, the state must bring the education of one's choice to one's door steps. This is possible, only and only if the basic characteristic of that unorthodox system is to allow the teachers and the learners' work apart from one another. Consequent upon accepting this basic characteristic, we must admit that in this system, the word of mouth cannot be the major means of communication. By implication, the teacher-learner communication must take different forms: the printed word, a telephone talk, a radio talk, etc. The student should be able to choose her/his educational goals and work on her/his own pace to go about learning in her/his own way and also decide the way her/his achievements may be assessed.

The student of the above description is the *autonomous student* — an educated person in the real sense of the word. It is the distance mode of teaching that goes with the above student characteristics.

b) **Distance between the learner and the teacher**

As indicated above, student autonomy has many pedagogic implications. The strongest of them all is that the learner has to learn apart from the teacher.

A classroom situation comprises five components

- i) the teacher,
- ii) the learner,
- iii) the subject-matter which is taught and learned,
- iv) a. communication system, and
- v) the classroom, i.e., the pedagogic site.

Wedemeyer sums up this description graphically as follows (See Figure 2.1):

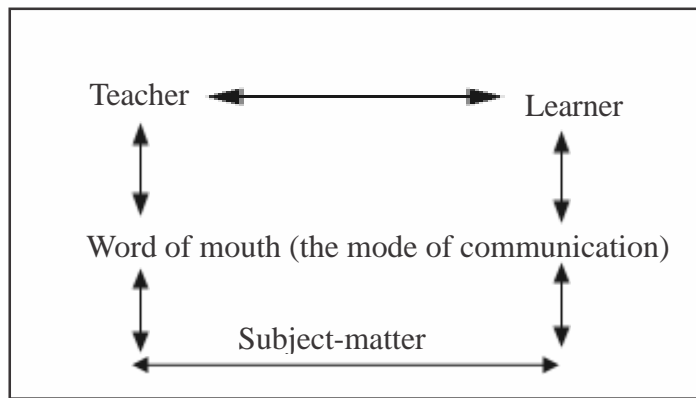


Fig. 2.1: The formal classroom situation

This model of teaching and learning has a prestige which is the result of centuries of socially acceptable practice. It is a universally accredited socio-academic norm.

In the new proposition articulated above under learner autonomy, Wedemeyer challenges this age-old socio-academic norm, a cultural artefact which by virtue of its existence over the centuries does not appear to have any need for reform or alternatives.

Wedemeyer points to the gradual but definite process of social evolution which has built viable alternatives to this potent cultural artefact. This process of social evolution as outlined by him encompass:

- i) The invention of **writing** broke down the absolute monopoly of speech as the medium of communication; besides, writing made it possible to record communications and transfer them over space and time.
- ii) The invention of **printing** broke down the monopoly of single-copy-written communications. Printing allowed the same communication to be passed on at the same or differing time(s) over distances to as many receivers as one wanted to.
- iii) The development of **telecommunication** collapsed the dimensions of time and space; and when applied to education, telecommunication opens up hitherto unknown possibilities of teacher-learner contacts.
- iv) The development of **democratic philosophies**, broke down the monopoly of elitist and sectarian forms of education.
- v) The introduction of **correspondence education** was the result of sheer social needs and pressures. In its beginnings it was not a movement sponsored by the state, nor was it the result of a deliberate effort made by educationists individually or collectively.
- vi) The development of **programmed-learning** and **teaching machines** pointed to the possibility of self-instruction, and learner-based education.

These changes have made it possible to organise teaching and learning in ways considerably different from what is represented by the model presented in Figure 2.2. One of the possible new ways of organising teaching and learning may be represented as follows (See Figure 2.2):

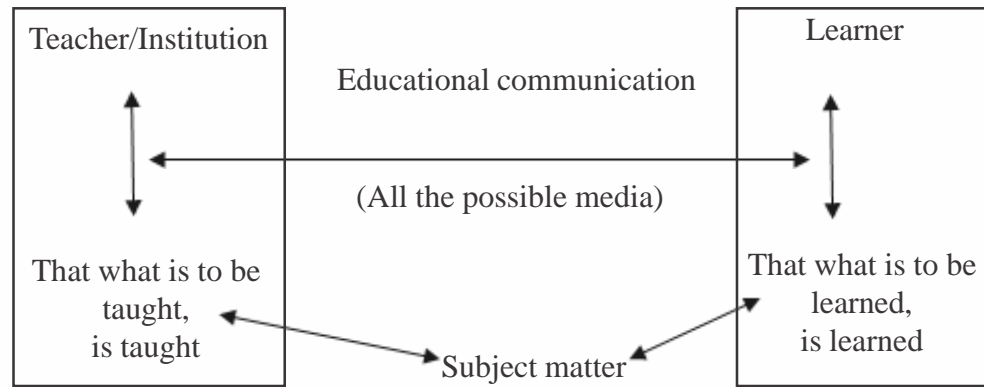


Fig. 2.2: A departure from the formal classroom situation

Reformation of conventional socio-academic norms: From the diagramme given above (Fig.2.2), it may be understood that the essential components that comprise a teaching-learning situation, namely the teacher, the learner, the subject-matter, and the mode of teaching-learning communication have remained intact. The difference suggested above is that instead of one box (see Fig. 2.2) we have two boxes now, both of them independent of each other. And the distance between the two boxes is filled by non-traditional means of educational communication which do not entirely do away with the traditional means of face-to-face (single box) communication. Thus the above model is not different from the one presented in Fig.2.2, as far as the basic components of a teaching-learning situation and their purposeful interaction are concerned. But if we use the proximity of these components as the major criterion for characterising the situation, the above model marks a complete departure from the traditional classroom model, which is a convenient concomitant of the face-to-face educational communication. Obviously, then, if the obsession about face-to-face educational communication is shaken off, i.e., a judicious variety of communication is adopted and perfected for purposes of being pedagogically effective, the confines of the classroom can be broken; and it will be possible for the learners to learn on their own, away from their teachers, and for teachers to teach even when they are away from learners. This situation, which is basically characterised by distance between the teacher and the learner, has a few significant implications for the overall teaching-learning process. The more significant of these are:

- i) the learner has the freedom to start, pace and stop his learning activities — it is he/she who is responsible for his/her progress or failure;
- ii) the learner is not necessarily torn away from his/her environment — physical, socio-cultural or geographical;
- iii) media other than the spoken word such as the printed word, audio-visuals, etc., are exploited for the benefit of both the teacher and the learner; and
- iv) learning can be made more and more relevant to individual needs and it is the learning activity which becomes more significant than the teaching effort.

Thus, distance education necessitates a change in both the learner-culture and the teacher-culture. The learner has to take such responsibilities and roles which traditionally did not belong to his/her culture and the same is the case with the teacher.

c) Structural system

The expected cultural changes which have been suggested above obviously necessitate redefining the characteristics of learners, teachers and the education system in order to make *non-contiguous educational communication* pedagogically effective. This characteristic of distance study means that the learner is physically at a long distance from the teacher for much, most or even all of the time during the teaching/learning process, in contrast to educational communication in a classroom situation which is ‘contiguous’. Such a redefinition of these characteristics forms the basis of a system that is structurally different from the traditional formal system of education. This new system may be visualised in the following features:

- i) the learner has to take much greater responsibility for learning than he/she was used to;
- ii) wider choice of both the content and the methods has to be provided to the learner;
- iii) individual differences among the learners have not only to be recognised, but also catered to;
- iv) learners have to be allowed their own pace to complete work through the courses — they may start, stop and/or complete the courses according to their own convenience and abilities;
- v) evaluation of student performance should be independent of the consequence, methods and place;
- vi) teachers should concentrate on educational tasks by withdrawing from social and administrative tasks — they should function more as managers of educational materials than as the traditional sources of all correct information and/or knowledge;
- vii) teachers should accept the role of media as a role complementary to their own — the implication is that the courses materials have to be reconceived and designed afresh;
- viii) the educational operation should effect a judicious media-mix — using all the media and methods should be one of the major principles of course design and production; and
- ix) the system should operate wherever the learner(s) may be — it should be independent of the domicile and grouping characteristic of the learners.

Thus, according to Wedemeyer, a system of education that is structured to incorporate the above characteristics is *an independent study system*.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

4) Write two reasons why an ‘independent study system’ is claimed to have the potential to change the ‘cultures’ of learners and teachers.

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Having completed this exercise, let us now turn to the second significant line of thought.

2.4.3 Theory of Transactional Distance and Learner Autonomy

This is in fact European Theory of Independent Study, or Reformulated independent study or Independent Study Revisited or Theory of Independence and Control. Michael G. Moore, the proponent of this theory, has worked at the University of Nova Scotia and the University of Wisconsin at Madison. His contribution to the theory of distance education does not consist in the presentation of a new concept thereof, but in a more insightful and analytical model which while essentially confirming the notions of Wedemeyer, sharpens them to build broad taxonomies to quantify the various degrees and types of independent study.

Moore's notion of independent study

For Moore, independent study is a generic term which describes all such educational transactions as may be distinguished from the traditional formal education in terms of the variables of 'distance' or/and 'autonomy'. For him, all educational transactions which allow these two variables are forms of independent study, be they open university programmes, correspondence courses, external degree programmes or teach-yourself programmes. Thus, all educational transactions can be classified in terms of these two variables, which can be expressed / represented as continua on the basis of two critical characteristics of the system of independent study, namely,

- dialogue, and
- individualisation

It is the difference in the degree of 'dialogue' and 'individualization' that differentiates a distance learner, a distance teacher, and distance teaching / learning from their counterparts in the traditional formal education. We shall elaborate on this.

- i) **Dialogue:** The term 'dialogue' is used to describe an interaction or series of interactions having positive qualities that other interactions might not have. A dialogue is purposeful, constructive and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor, and builds on the contributions of the other party or parties. There can be negative or neutral interactions; the term 'dialogue' is reserved for positive interactions. The direction of the dialogue in an educational relationship is towards the improved understanding of the student (Moore, 1997). It is thus a broad term which may best be interpreted by the expression 'academic interaction' aimed at effecting teaching and learning; teaching as far as the teacher or the institute is concerned, and learning as far as the learner is concerned. This 'dialogue' may take place in a face-to-face situation, by individual or group telephone, individual or group correspondence, or may be mainly one sided, as in the case of computer assisted instruction, programmed instruction, television, radio and text materials.
- ii) **Individualisation:** An educational programme is said to be highly 'individualised' if its curricular components namely objectives, methods, materials and evaluation have a very high correlation with the curricular components of the learner's learning programme. We understand that

structure expresses the rigidity or flexibility of the programme's educational objectives, teaching strategies, and evaluation methods. Traditional academic programmes are thus highly 'structured', i.e., their curricular components, namely, objectives, methods, materials and evaluation are usually predetermined irrespective of what the needs of a particular learner may be. On the contrary, an academic programme which is flexible enough to cater to diverse learner-characteristics and needs cannot have a rigid structure; and a programme that lacks structure (in the sense in which the term has been used above) will make 'individualisation' of learning possible. It means, 'lack of structure' assures 'individualisation'. In other words, it describes the extent to which an education programme can accommodate or be responsive to each learner's individual needs.

According to this theory, *transactional distance* in distance education is thus not simply a geographic separation of learners and teachers, but, more importantly, it is a pedagogical concept. It is a concept describing the universe of teacher-learner relationships that exist when learners and instructors are separated by space and/or by time. This universe of relationships can be ordered into a typology that is shaped around the most elementary constructs of the field — namely, the 'structure' of instructional programmes, the 'interaction' (dialog) between learners and teachers, and the nature and degree of self-directedness or 'autonomy' of the learner. Whether *instructional dialogue* occurs its extent and nature is determined by the educational philosophy of the individual or group responsible for the design of the course, by the personalities of teacher and learner, by the subject-matter of the course, and by environmental factors. One of the major determinants of the extent to which the transactional distance will be overcome is whether instructional dialogue between learners and instructors is possible, and the extent to which it is achieved. As with dialogue, structure is a qualitative variable, and the extent of structure in a programme is determined largely by the nature of the communications media being employed, but also by the philosophy and emotional characteristics of teachers, the personalities and other characteristics of learners, and the constraints imposed by educational institutions. *Programme structure* variables constitute the second set of variables that determine transactional distance and these include the elements in the course design, or the ways in which the teaching programme is structured so that it can be delivered through the various communications media. Structure expresses the rigidity or flexibility of the programme's educational objectives, teaching strategies, and evaluation methods. It describes the extent to which an education programme can accommodate or be responsive to each learner's individual needs (Moore, 1997, See <http://www.c3l.uni-oldenburg.de/cde/found/moore93.pdf>).

Within the family of distance education programmes there are many different degrees of transactional distance. Transactional distance is a relative rather than an absolute variable. The extent of transactional distance in an educational programme is a function of three sets of variables — in teaching, in learning and in the interaction of teaching and learning. These clusters of variables are named *Dialogue*, *Structure*, and *Learner Autonomy* (Moore, 1997, op cit).

Moore contends that a need for reformulation of conventional socio-academic norms is not only desirable but also imperative. This aim can be achieved through the practice of distance education as it promotes 'learner autonomy'. He suggests that '*physical distance*' alone is not significant in conceptualising 'distance


education'. What matters, besides, are the variables of 'individualisation' and 'dialogue', as a very high degree of both these variables makes a course / programme *less distant* pedagogically and, conversely, a very low degree of both the variables will make a course / programme *greatly distant*. In this context, we explain what Moore means by dialogue, and individualization.

For him *dialogue* is 'a measure of the degree to which the communication medium in a distance education programme permits learner-teacher interactions', and *individualisation* is 'a measure of the extent of the responsiveness' of a teaching programme to the objectives of an individual learner. Thus, an educational programme, in which the *learning programme* occurs separately in terms of time and place from the *teaching programme* allowing the learner control (of varying degrees) over the objectives of learning, learning tools, methods and evaluation, is an 'independent study' programme. Having studied Moore's notions of dialogue, individualisation and structure in his analysis of the notion of 'independent study' we show you how he uses these notions to expound his concepts of '*distance*' and '*autonomy*'.

A) Distance: a function of 'dialogue' and 'Individualisation'

A particular combination of the features of 'dialogue' and 'structure' in an academic programme will give it a character of its own. And different combinations of these features will give us differing categories of academic programmes. Using letter symbol +D for high dialogue, -D for lack of dialogue, -S for lack of structure, and +S for highly structured, Moore categorised the possible educational programmes as follows (See Table 2.2).

Table 2.2: Programme types in terms of 'dialogue' and 'structure'

Distance as the variable	Type	Programme Type	Examples
	-D +S	1. Programmes with no dialogue but with structure.	Programmes in which the communication method is radio or television.
	-D -S	2. Programmes with no dialogue and no structure.	Independent reading/study programmes of the 'self directed' kind.
	+D +S	3. Programmes with dialogue and structure.	Programmes using the two-way communication methods
	+D -S	4. Programmes with dialogue and no structure	A tutorial programme.

Thus, Moore used these variables, *dialogue* and *individualisation*, not only for the purposes of categorizing or classifying the academic programmes, but also to formulate his notion of *distance*. According to him, the actual distance between the learner and the teacher / institution should not be measured in terms of the spatial distance between the two, but in terms of the degrees of *dialogue* and *individualisation* which the academic programmes offer. This classification of

distance teaching/learning methods *on the basis of variability* of ‘dialogue’ and ‘individualisation’ makes it clear that the term ‘distance’ is not to be confused with the degree of physical ‘contiguity’. For example, learner X may be 400 miles away from his/her distance teaching institute, and learner Y just 4 miles away from his/her distance teaching institute; but there are arrangements which make it possible for learner X to interact with his/her institute and/or the teachers by telephone as many times a day as he/she would like to, as against learner Y who has to depend entirely on text materials sent to him/her by his/her institute which does not make any arrangements for additional academic interaction. In such a case, we shall say that relatively learner Y is more distant from his/her institute than learner X. Thus ‘distance’ in this context is to be seen as a function of ‘dialogue’ and that of ‘individualisation’. That is to say, the higher the degree of ‘dialogue’ and ‘individualisation’ the less distant the learner is from his/her teacher/institute, and the lower the degree of ‘dialogue’ and ‘individualisation’, the more distant the learner is from his/her teacher/institute.

So far, we discussed Moore’s concept of ‘distance’ as one of the characteristics of distance education. Now, we turn to its second characteristic namely ‘learner autonomy’.

B) Learner autonomy

According to Moore, learner autonomy is the extent to which, in the teaching/learning relationship, the learner rather than the teacher determines the goals, the learning experiences, and the evaluation decisions of the learning programme. Distance education programmes can be examined to see to what extent the teacher or the learner controls the main teaching-learning processes, and can then be classified according to the degree of learner autonomy permitted by each programme. He found a relationship between transactional distance and learner autonomy. Students with advanced competence as autonomous learners appeared to be quite comfortable with less dialogic programmes with little structure; more dependent learners preferred programmes with more dialogue; some wanted a great deal of structure; while others preferred to rely on the informal structure provided in a close relationship with an instructor.

It will be a good idea to have quick glance at where we have very briefly explained what learner autonomy is. In the traditional educational system, education is thrust upon learners from the above, in which sense it is a top-down model. The curricular components are chosen and/or decided upon by the institute and/or the teacher, which/who prescribes the line to be followed by the learner. Let us elaborate on this point.

We have indicated earlier that a curricula unit is constituted by the statements of objectives of an academic programme, the methods that may be used to achieve those objectives, the materials which may suit those methods, and the evaluation-system which may help achieving those objectives through the agencies of the suggested methods and the prescribed materials. Accordingly, an academic programme for which the objectives, methods, materials and evaluation are decided by the institute/teacher may be termed *‘institute/teacher-determined’*. Against this background, it should not be difficult to visualise a programme which may be called ‘learner-determined’. We shall call a programme *‘learner-determined’* if its objectives, methods, materials and evaluation (all the four

curricular components) are determined by the learner himself/herself. Put differently, a learner-determined programme may be said to allow *'learner autonomy'*. Depending on the degree of 'learner autonomy' -which a particular programme may allow, we can classify it in a typology ranging from learner-determined' or 'autonomous' to 'institute/teacher determined' or 'non-autonomous'. What follows is an illustration to exemplify what we have said above.

Table 2.3 shows that learning programmes may range from 3N types to 3A types. Let us explain this further by taking a B.Ed programme as an example. The objectives of this programme are predetermined by the NCTE and university concerned. Thus, as far as the objectives of the programme are concerned, they do not allow autonomy to the learner and we indicate it by the letter 'N' (non-autonomous). The methods adopted and the materials used to effect teaching too are determined by the university and/or the teacher; so, on this account either the learner is not allowed any autonomy and again we indicate it by the letter 'N'. The same is the case with evaluation which is determined by the university. Thus, a B.Ed. programme is through and through a 'non-autonomous' programme, i.e. 3N type. On the other hand, a qualified engineer may join a course for purposes of his/her personal improvement in his/her profession, i.e., to keep himself/herself abreast with what is the latest in his/her field of specialisation. Assuming that many such courses are available, this engineer will choose a course, keeping in view his/her requirements and/or interests, i.e., he/she will decide on the objectives of the course, he/she will also decide on and follow the methodology and the materials according to his/her choice, and finally he/she will decide whether his/her objective is achieved. A course of this kind is completely 'autonomous' and we may call it a 3A type programme. And between the two types illustrated above there can be a range of course/programme types — some more and some less autonomous than others.

Table 2.3: Programme Types in terms of Learner Autonomy

Range of programme types	Sl. No.	Programme types	Setting of objectives	Procedure (Methods + Materials)	Evaluation
Teacher-determined (non-autonomous) (N)	1.	Most correspondence courses in India	N	N	N
	2.	Many private study courses	N	A	N
	3.	Studies in which learner controls evaluation only	N	N	A
	4.	Studies in which learner controls course content and evaluation	N	A	A
Learner-determined (autonomous) (A)	5.	Learning car driving	A	N	N
	6.	Learning sports skills	A	N	A
	7.	Studies for personal improvement	A	A	A

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

5) Why has item 5, i.e., ‘learning car driving’ (in Table 2.3), been categorised as an ‘ANN’ type programme?

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2.4.4 Theory of Industrialization of Teaching

Theory of Industrialization of Teaching or Industrialised form of teaching and learning was propounded by Otto Peters. He was the first Vice-Chancellor of the Fern Universitat (the open university of the erstwhile West Germany) in 1975. Earlier he had worked at the German Institute of Distance Education in the former Federal Republic of Germany, where he developed significant insights into the process of distance education. His belief was that highly developed industrial societies had generated a vast variety of need for education. This fact coupled with the phenomenon of population explosion according to him, had rendered the conventional system of education inadequate to fulfill the educational needs of the ever growing number of learners. He, therefore, contended that new approaches have to be explored, new techniques developed and made available for application — all these have to be ‘industrial’ in character as the very need for them has arisen as a result of industrialisation.

Rationale behind the theory: Phenomenal change in education

Peters (1973) made his major contribution to the theory of distance education through a book entitled ‘The Didactical Structure of Distance Teaching: Investigations towards an industrialised form of teaching and learning’. (It was written originally in German). He concluded that *distance learning / teaching was an industrialised form of teaching and learning*. However, he did not ignore the conventional theoretical concepts in arriving at such conclusions. He used these inputs to strengthen his view that distance education is an ‘industrialised’ form of education. For example, the concepts developed by the German educational theorists like Heinmann and Schultz for traditional education namely ‘intention’, ‘content’, ‘methodology’, ‘choice of medium’, ‘personal characteristics’ and ‘socio-cultural situation’, when applied to the process of distance education, show that distance education is a phenomenon that is very different from conventional education. We shall elaborate on this point here:

- i) The didactical *intention* of a distance teacher is bound to be of a higher cognitive domain, but of lower degrees in psycho-motor and affective domains.
- ii) The choice of *content* cannot be as vast and varied in distance education as may be in the conventional system (Face-to-face components have to be introduced, if practicals of various types constitute parts of the content).
- iii) Teaching *methodology* and the selection of media also undergo major changes, as very many conventional methodologies cannot be used at a distance.
- iv) Differences in *personal characteristics* and *socio-cultural backgrounds* of the learners are also non-conventional — first generation learners compete with traditionally elite groups, middle-aged learners find themselves grouped with younger learners, etc.

This analysis made Peter conclude that the categories proposed for analysing conventional didactical structure are not adequate for analysing the structure and/or process of distance education.

Peters (1988) analysed distance education with the help of categories to ‘industrial’ theory and practice and concluded that for distance teaching to be effective, the *principle of division of labor is a critical element*. In his theory of industrialization, *the teaching process is gradually restructured through increased mechanization and automation*. Peters noted the following:

- The development of distance study courses is just as important as the preparatory work that takes place prior to the production process.
- The effectiveness of the teaching process is particularly dependent on planning and organization.
- Courses must be formalized and expectations from students standardized.
- The teaching process is largely objectified.
- The function of academics teaching at a distance has changed considerably vis-a-vis university teachers in conventional teaching.
- Distance study can only be economical with a concentration of the available resources and a centralized administration.

According to Peters, when decisions about the process of teaching and learning in distance education are made, the industrial structures characteristic of distance teaching should be taken into account.

Industrial characteristics of distance education: Parallelisms

Here, we shall discuss some of the characteristics of distance education which have parallels in the industrial sector.

- i) **Division of labour:** The production of teaching materials for purposes of distance education is an industrialized process. A whole range of experts from subject specialists, course writers and editors to instructional designers, printers, etc., work on industrial lines to produce materials to be used in ways different from those that are used to learn from conventional books. Basic industrial principle that is seen involved here is ‘division of labour’. This principle is not only applicable to the production of materials, but also

to the rest of the pedagogy processes — those who prepare the information and academic tasks are not the ones who supply or transmit them, those who supply/transmit them are not directly concerned with tuition and counselling, those engaged in tutoring and counselling can be different from those who evaluate learners' progress or assess their performance. In essence, each function is taken care of by a specialist.

- ii) **Mass production of teaching materials:** 'Mass production', obviously is a phenomenon of industries. When looked at from historical point of view, clear parallels are identifiable between industry and distance education. For example, the growth of industry is seen from individual labour to group effort, and manufacture to mass production to meet higher demands. So has been the case with the emergence of distance education. We can also see parallels in the progress from the initial use of tools, through simple mechanisation, to automation and computerisation and the parallel is quite striking.
- iii) **Systematisation of work procedures:** There are identifiable parallels between the consequences of industrialisation and those of distance education. For example, it has been realised that as in industrialisation, in distance education too, success depends, to a great extent, on:
- 'planning' which has to be scientific in nature,
 - formalisation of procedures,
 - standardisation of products,
 - systematisation of the overall process,
 - mechanisation which has implications for social and attitudinal changes in the manpower used for the purpose, and
 - heavy dependence on centralisation.
- iv) **Layout:** It may appear trivial to find a parallel even in the design of buildings, yet it is vital. What we are driving at is that the 'campus' of an open university is markedly different from that of a typical traditional university. In the former, the structures are more or less similar to those of an industry in the sense that it has separate sections for 'production', 'design', etc. And the role of teachers more often than not is similar to that of managers.

It is possible that one can add a few more parallels here. The intention, however, is not to present an exhaustive list. Those which are presented here are illustrative of the point that Peters tried to impress on. Having seen the parallels between distance education and industry, we should also know this industrialised form of education differs from the face-to-face system of education.

Peters rated these parallelisms high in his theorisation of distance education.

Distance Education — Most industrialised form of education

Peters' conclusion is that, of all forms of education, distance education is the most industrialised one, and that along with the theory of industrialisation, the heuristic categories used therein are the best means to explain this new educational phenomenon. Peters differentiates educational communication as it obtains in the conventional education, which is supposed to be based on interpersonal

communication, and in distance education wherein communication is indirect, i.e., communication which is mostly effected through various media.

Pedagogic aspects of Peters’ theory

Some of the significant pedagogic aspects of Peters’ theory are given below:

- i) In distance education, educational communication is artificial as the overall communication is broken up into components — print, audio, video, etc., which are effected mechanically. Such a sea-change in educational communication has assigned new roles for both the teachers and the learners. The teaching acts and the learning acts too, along with the responsibilities of the teacher and those of the learner have changed.
- ii) Teacher is more a ‘manager’ than a repository and the sole interpreter or commentator of information. The first task of the teacher, then, is to accept this new role and adapt himself/herself to the system of distance education. He/She is faced with a situation in which the entire teaching process and the teaching materials are split into many components, each of which is performed and managed by different persons and tools, which constitute the system. To adapt to this new system is to break off from a professional pattern that has centuries behind it.
- iii) Most of the learners who come to the fold of distance education have had their grounding in the conventional system of education. They find distance education attractive, for it allows them to have their own way — the instruction is not time-bound, place-bound, nor person-bound. They can choose from a vast variety of options open to them, take their own time to complete courses, choose their own places to work through the courses. These advantages notwithstanding, the responsibilities of a distance learner have not only increased, but also changed in character. Very often he/she finds it difficult to cope with this industrialised system and drops out.

These consequences of the industrialisation of education, as he viewed should, by implication, give rise to a new class of educationists who take the responsibility of making this industrialised system of education more humane, help the teacher adapt himself/herself and the learner to benefit most from this new educational situation. The process, as one can see it today, has already taken deep roots and spread all over the globe.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

6) Write four features which are common to an open university and an industry.

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2.4.5 Theory of Guided Didactic Conversation

The fourth significant contribution to the theory of distance education is the concept of ‘guided didactic conversation’ propounded by Borje Holmberg. He started as a lecturer in English and turned to distance education in 1956 on joining Hermods, the leading Swedish correspondence institution at Malmo, of which he became the director in 1965. He was a professor of distance education at Fern Universitat, Hagen, before he retired.

Guided didactic conversation — an explanation

A prolific writer and a sound theoretician, Holmberg takes the view that the core of education is *learning by individual learners*. Having taken this stand, he believes that distance education should be accepted as an appropriate mode of education particularly suitable for *individual learning*, as it makes it possible for the learner to depend on his/her personal work which is essentially independent of face-to-face direct teaching. The distance learner is free to choose from the various support facilities made available to him/her — radio and TV programmes, audio and video cassettes, telephone and computer, even face-to-face teaching in contact programmes, etc. — but the onus of learning or achieving the academic objectives is on his/her own shoulders. He/she is engaged in what is being called ‘self-study’ or ‘independent study’. The significant point to be kept in mind is that a learner engaged in ‘self-study’ is not a loner. He/she does not go about his/her studies all alone. He/she has a whole team of administrators, writers, media producers, teachers, evaluators, tutors, educationists, counsellors, etc., working with him/her but all of them have supportive roles; they support individual learning or self-study. (A word of caution is necessary here. In the Indian situation, one can come across candidates who appear at university examinations privately, at some places they are called ‘external candidates’. Such private/external candidates are not to be confused with the kind of learner we have tried to define above. For Holmberg, a private external candidate is entirely on his/her own, he/she is a loner, but a distance learner, on the other hand, has all the support available for his/her ‘self-study’).

The support we have talked about earlier should be made available by the open university / correspondence institution or whatever name we may choose to give it. The essence of this academic support is to *build an academically fruitful relationship* between the individual learner and the supporting institution, and this relationship, according to Holmberg, is characterised by what he calls ‘*guided didactic conversation*’.

Types of didactic conversation

Outlining this notion of ‘conversation’ in his book *Status and trends of distance education*, Holmberg (1981), says:

“A kind of conversation in the form of two-way traffic occurs through the written and telephone interaction between the students and the tutor and others belonging to the supporting organisation. Indirectly, conversation is brought about by the presentation of study matter, as this one-way traffic causes students to discuss the contents with themselves. The conversation is thus both real and simulated. The simulated conversation is not only what Lewis calls internalised conversation caused by a study of a text, but is a relationship between the course developers and the students, created by an easily readable and reasonably colloquial style of

presentation and the personal atmosphere of the course superficially characterised by, for instance, the author(s) referring to himself / herself / themselves as 'I' or 'we' respectively and the students being spoken to as 'you' ('I recommend that you...'). Questions and replies, suggestions and references to problems known to the students belong here. This style of presentation stimulates activity and implies reasoning, discussion for and against, referring to the students' previous experience and thus avoiding omissions in chains of thought. Revision tasks and self-checking exercises also belong to the simulated conversation".

In the above excerpt, among other points, Holmberg identifies two types of didactic conversation.

- i) real, and
- ii) simulated.

They can be represented diagrammatically as follows (See Figure 2.3):

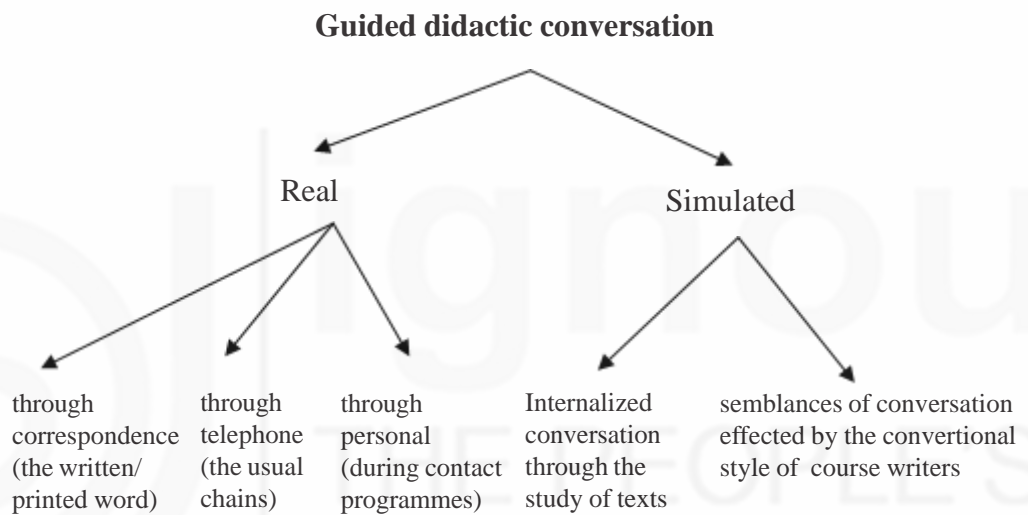


Fig. 2.3: Guided didactic conversation

Features of didactic conversation

According to Holmberg (1981), didactic conversation has the following features or characteristics:

- i) Easily accessible presentations of study matters; dear, somewhat colloquial language, in writing easily readable if the text is printed; moderate density of information.
- ii) Explicit advice and suggestions to the student as to what to do and what to avoid, where to pay particular attention and when ...
- iii) Invitation to an exchange of views, to questions, to judgements of what is to be accepted and what is to be rejected.
- iv) Attempts to involve the student emotionally so that he or she takes a personal interest in the subject and its problems.
- v) Personal style including the use of the personal and possessive pronouns.
- vi) Demarcation of changes of themes through explicit statements, typographical means or, in recorded, spoken communication, through a change of speakers, e.g. male followed by female, or through pauses (this is a characteristic of the guidance rather than of the conversation).

The above features of ‘guided didactic conversation’ suggest explicitly what the course designers and course writers should do in order to effect distance learning successfully.

Having thus presented the concept of ‘guided didactic conversation’ and also the implications thereof for planning and developing the course materials, Holmberg (1981) summarises his hypothesis as follows:

“The stronger the characteristics of guided didactic conversation, the stronger the students’ feelings of personal relationship between them and the supporting organisation. The stronger the students’ feelings that the supporting organisation is interested in making the study matter personally relevant to them, the greater their personal involvement. The stronger the students’ feelings of personal relations to the supporting organisation and of being personally involved with the study matter, the stronger the motivation and the more effective the learning.”

Thus, with the help of the concept of ‘guided didactic conversation’, Holmberg suggests what he thinks distance education is, what the nature of distance teaching materials should be, and finally what kind of distance teaching methodology will prove successful.

In 1995, Holmberg significantly broadened his theory of distance education. This comprehensive theory is divided into a number of parts encompassing the theory just stated previously and the belief that distance education serves diverse individual learners who cannot or do not want to make use of face-to-face teaching. Distance education thus promotes students’ independence and freedom of choice. Society benefits from distance education’s provision of, on the one hand, liberal study opportunities for individual learners, and, on the other, professional/occupational training. Distance education is an instrument for recurrent and lifelong learning and for free access to learning opportunities and equity. According to Holmberg, distance education is characterized by the following statements:

- All learning concerned with the acquisition of cognitive knowledge and cognitive skills, as well as affective learning and some psychomotor learning, is effectively provided for by distance education.
- Distance education is based on learning as an individual activity. Learning is guided and supported by non-contiguous means.
- Distance education is open to behaviorist, cognitive, constructivist, and other modes of learning.
- Personal relations, study pleasure, and empathy between students and those supporting them (tutors, counselors) are central to learning in distance education. Feelings of empathy and belongingness promote students’ motivation to learn, influencing learning favorably.
- While it is an effective mode of training, distance education runs the risk of leading to mere fact learning and reproduction of accepted ‘truths’. However, it can be organized and carried out in such a way that students are encouraged to search, criticize, and identify positions of their own.

Holmberg’s expanded theory represents not only a description of distance education but also explanatory power. It is useful to identify a general approach favorable to learning and to the teaching efforts conducive to learning.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

7) Why Holmberg called the conversation ‘guided’ and ‘didactic’?

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2.4.6 Theory of Two-way Postal Communication

John A. Baath of Sweden who worked at Hermods in Malmo is mainly associated with the concept of ‘two-way communication in correspondence / distance education’. However, we also shall briefly touch upon his insights into the models of distance education as well.

It should be stated at the very outset that Baath’s views do not differ from those of Holmberg in essence; the difference, if any, lies in specific emphasis which Baath places on “two-way communication” *vis-a-vis* the models of distance education materials. Baath accepts that correspondence/distance education has become a means of mass education by ‘industrialising education’ and also that distance study is essentially ‘individual study’. However, his experiences as a course writer, editor, tutor and course designer impressed upon him that “a correspondence tutor could stimulate his students to most remarkable improvements, by means of constructive criticism, encouragement, and personal involvement in the individual student’s learning problems” (Baath, 1980). He also notices that “there was a clear tendency to reduce the amount of postal two-way communication in the teaching system”. We shall elaborate on what we have presented in sub-section 4.4.5 above.

Pedagogic significance of tutor-comments

It is obvious that in correspondence /distance education, tutor’s comments pertain to assignments meant to be worked on by the distance learners. The suggestion is that for bringing about “most remarkable improvements” in learner performance, tutor-comments (stimulated by assignment based tasks) play a very significant role in distance education. Thus, tutor-comments constitute a highly desirable pedagogic component of distance education. But, tutor-comments do not find a place in the overall plan of the “industrialised” kind of academic support provided to the distance learner. Tutor-comments may come in only as a link in

a chain of two-way communication, which is started by the correspondence / distance institution through the course materials. If there is a provision for compulsory assignments to be worked through, the learner is obliged to provide the second link in the chain of two-way communication by working through the assignments and submitting them for assessment by the correspondence / distance tutor(s). The assessment made by the tutor(s) is the third link in the chain of two-way communication. The fourth link could be the questions and doubts raised by the learner(s) in response to the assessment made by the tutor(s). But, let us take a second look at the third link mentioned above.

Experience has shown (and this applies invariably to most cases, for example, in the Indian context of correspondence / distance education) that the only overt indicator of tutors having gone through the learner-response is a grade (on point-scale) or mark (per cent) put on top of the response sheets. Such a grade or mark may stimulate some communication or reaction on the part of the learner, but it cannot go far pedagogically, as in such a case, the tutor has functioned more like an ‘examiner’ than as a correspondence / distance tutor. His tutorial input, the actual third link in the chain of two-way communication, should consist of ‘constructive criticism, encouragement, etc.’, for it is comments and not mere grades / marks that improve learner performance.

Baath emphasises the pedagogic significance of tutor-comments which form the crucial link in the chain of two-way communication in correspondence / distance education. Secondly, his realisation is that, in spite of the pedagogic significance of assignments, etc., there is a tendency “to reduce the amount of postal two-way communication”. We may be inclined to believe that this is a dangerous tendency. It might be that alternatives will be found, as Baath did by way of building in “some kind of two-way communication within the material” in terms of self-check exercises, detailed model / specimen answers, etc., but the significant point that emerges from this discussion is that *two-way communication is needed* for improving learner performance.

Now we turn to yet another important point made by Baath.

Pre-enrolment counselling

In his significant work on the analysis of distance education on the bases of some of the well-known teaching models (such as the ones presented by Skinner, Rothkopf, Ausubel, Bruner, Rogers, etc.). Baath suggests, among other things, that we could very broadly talk of two distance teaching models:

- i) the models which display stricter control of learning towards fixed (academic) goals, and
- ii) the models which display less control of learning towards fixed (academic) goals.

Having identified these two broad models, he finds that the former tends to focus on teaching/learning materials — making them self-sufficient in as many ways as they possibly can be — and relegate two-way communication between the learner and the tutor/institution to an insignificant position in the overall teaching/learning process, while as the latter assigns a significant role to two-way academic communication in their teaching/learning schemes. Without passing any value judgement on either of these models, Baath is pragmatic in suggesting that the

design of teaching/learning materials, of course, is important (as two-way communication can be built into them) but no less important is two-way communication, on its own merit, be it by mail, telephone or in a face-to-face situation. To these two prime factors responsible for the success of distance education, he adds one more, namely ‘pre-enrolment counselling’. He adds this factor as his analyses of learning strategies show that learners, especially adult learners, need help in:

- i) defining and identifying their learning goals,
- ii) selecting suitable materials to achieve those identified goals, and
- iii) resolving their academic difficulties and promoting or sustaining their motivation.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

8) How does the distance tutor operate to effect ‘two-way communication?’

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2.4.7 Theory of Continuity of Concern

In this sub-section we shall touch upon the view of David Sewart, who entered the area of distance education in 1973 at the British Open University. His experiences in tutorial services, made available at the regional and study centres of the University, have convinced him about the immense significance of these services to such an extent that he believes that the crux of distance teaching is a ‘continuity of concern for students learning at a distance’. The expression ‘continuity of concern’ proposes a human element in an otherwise “industrialised” form of education. In a sense, Sewart reinforces the view of Baath, but with greater emphasis. The strength of his conviction lies in the pragmatic approach he suggests. We shall discuss it below.

Vital need for human support: Sewart argues that distance education institutions / universities are essentially institutions of mass education, and a particular package of materials is served to hundreds of students, and in many cases to thousands of them. Can such a single package perform all the functions of a teacher (who in the worst situations has to adjust his/her reach to say about a hundred or more students) on the one hand, and cater to the vast variety of the needs and the idiosyncracies of distance learners on the other? Sewart’s answer to both the questions seems to be a clear ‘no’.

If a package of materials with such qualities is to be produced it will formidably be expensive, as it will have to display all the interactive processes which obtain between the teacher and each individual learner. The implication is that, however sophisticated the design and vast the reach of such materials may be, the learner body will always need additional human support which alone can match the infinite variety of problems that non-contiguous teaching/learning gives rise to. The distance teaching institutions will have to provide this advisory and tutor support through a human agency which alone can guarantee the 'continuity of concern for students learning at a distance'. The pre-planned package of materials is a constant. It needs human versatility to help the distance learners exploit this constant to satisfy an infinite variety of their needs and difficulties.

Major issues and compromises: The major issues that Sewart addresses to himself are:

- i) the lack of immediate feedback, and
- ii) near total absence of peer group interaction.

It is not as though other thinkers have not considered these issues, but they have not chosen to be so emphatic about their pedagogic significance as Sewart is. It is primarily on the bases of the attitudes towards the issues which Sewart has been emphatic about, that the educationists are divided into two camps:

- i) those who are not ready to recognise a system of education that is bereft of all important human element, crucial in any process of learning — lack of esteem for distance education is mainly a consequence of this attitude of suspicion; and
- ii) those who are all out for distance education, and would like to reduce the human element in distance education to the minimum.

Sewart rejects both the views. He is not with the former as he justifies distance education with three very strong arguments:

- i) Education should benefit from new communication technologies and exhibit their potential maximally. Distance education depends on and provides for the utilisation of such technologies.
- ii) Education has to be democratised, the left-outs have to be taken care of, steps have to be taken that no societies allow left-outs of any kind. Only distance education can meet this challenge.
- iii) Given the limited human, economic and spatial resources, the only viable mode of education is distance education.

Nor is he with the latter group, for he emphasises the role of the human element in distance education. As he characterises distance teaching / learning packages essentially by their constancy, he would like to provide for:

- i) the infinite variety of learner problems,
- ii) immediate feedback, and
- iii) peer group interaction.

To resolve all the three issues effectively, Sewart emphasises the introduction of the human element in distance education, whereby a continuity of concern for students learning at a distance can be maintained. It may be noticed that Sewart

is presenting a compromise between the two extreme views mentioned above. And compromises, in their wake to bring in additional problems, both theoretical and practical.

The theoretical problems raised by Sewart’s views pertain to the very basic notion of distance education. A heavy component of face-to-face teaching in distance education programmes might sound to be a contradiction in terms. And secondly, the provision for such extensive human support will falsify some of the economic theories about distance education. On the practical front, to establish and maintain a vast network of such human support he brings in immense operational complexities in the overall management of distance education. Sewart provides answers to these problems. He contends that face-to-face elements in distance education should be regarded as its legitimate constituents like all other media constituents, and any legitimate obligatory expenditure to effect such inclusion of human support, its operational complexities notwithstanding, should not be grudged against, as the overall cost, i.e., that of the package of materials and human support put together, will still be less than what the conventional system will incur for a given large number of learners.

Check Your Progress

Notes: a) Space given below the question is for writing your answer.

b) Check your answer with the one given at the end of this unit under “Answers to ‘Check Your Progress’ Questions”.

9) List the main issues raised by Sewart. What are his suggestions for resolving the issues?

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2.4.8 Theory of Communication and Learner Control

The next contribution to be discussed here explicitly places sustained real two-way communication at the core of the educational experience, regardless of the separation of teacher and student. While mediated communication is a defining characteristic of distance education and an important design concern, this framework proposed by Garrison and Baynton (1987) and updated by Garrison (1989, cited in Garrison 2000) did not redefine the essential nature of the teaching-learning transaction. According to him:

- The central concept is that educational transaction is based upon seeking understanding and knowledge through dialogue and debate.
- The learning process requires two-way communication between the learner and the teacher.

- Learner control is to replace the concept of independence or autonomy: the opportunity and ability to influence and direct a course of events cannot be established by only one party, but based on interrelationship between independence (self-directedness) and support.
- Primary focus in learning is on facilitation of educational transaction.
- Technology is required to support the educational transaction.
- Technology and DE is inseparable.

Garrison (1989) reflects the assumptions of this paradigmatic shift. This model of the educational transaction at a distance placed the concept of control at the center of the transaction. Control was defined as the opportunity and ability to influence the educational transaction. This was intended to replace the concept of independence (self-study), often a core element of distance education with a more comprehensive perspective of the educational transaction. Shared control was seen to be reflective of the transactional nature of an educational experience. Two-way communication is central to control and at variance with independence that has the effect of reducing the legitimate and worthwhile role of the teacher and, thereby, risking isolation.

The control model places within the macro-structural level of teacher, student and content the micro-level transactional elements of proficiency (ability and motivation), support (human and non-human resources), and independence (opportunity to choose). Independence necessitated by structural constraints reflects only one set of variables to be considered in a complex educational transaction. Consideration of these transactional elements will determine the appropriate balance of control which can only be assessed and constantly adjusted through sustained two-way communication.

2.4.9 Theory of Re-integration of Teaching and Learning Acts

According to Keegan (1986, 1990) distance education is not primarily characterised by interpersonal communication, but is instead characterised by the separation of the teaching acts in time and place from the learning acts. In this view he is consistent with Moore, who contrasts distance teaching and learning and contiguous teaching and learning situations. Keegan's basis for the distinction is the nature of the resulting communication. Keegan reasons that based on the industrial-like character of distance education which emphasises the separation of the student from the teaching institution, a theoretical justification for distance education is to be found in the reintegration of the teaching and learning acts. In this step, Keegan diverges from both Moore and Holmberg who seem to view separation as both an advantage and a challenge to the autonomous learner. Keegan states (See http://www.prof2000.pt/users/ajllopes/AF22_EAD/teorias_ead/Teorias_Amundsen_English.htm):

“The inter-subjectivity of teacher and learner, in which learning from teaching occurs, has to be artificially recreated. Over space and time a distance system seeks to reconstruct the moment in which the teaching-learning interaction occurs. The linking of learning materials to learning is central to this process.” (Keegan, 1986).

Keegan argues that this learning link is a given in traditional education, because the learner is in an environment created to support learning (i.e., the school and/

or university). Keegan believes that for the distance student, the recreation of the link between teaching and learning must be accomplished through interpersonal communication which is deliberately planned. The theme of interpersonal communication is similar to that of Holmberg, but rather focuses directly on the teaching or the learner; Keegan's focus is on the learning act. Like Holmberg, Keegan also considers that printed instructional materials can be designed to include many of the characteristics of interpersonal communication and he, therefore, does not limit his notion of interpersonal communication to telephone tutorials, teleconferences, or other similar forms.

Keegan reasons that the more successfully the distance education programme manages reintegration, the lower the drop-out rate, the higher the quality of learning, and the higher the status of the institution. Some support has been found for these hypotheses (Amundsen and Bernard 1989). Thus, while separation of teaching acts in time and place from learning acts is central to Keegan's concept of distance education, successful distance education, he believes, requires the reintegration of the two acts. Possibly the emphasis on making learning experiences equivalent for learners would contribute to the reunification of teaching and learning as simultaneously occurring acts.

2.4.10 Theory of Equivalency of Learning Experiences

The impact of new telecommunications technologies on distance education is far-reaching. Real-time television systems, such as the Iowa Communications Network (Simonson and Schlosser 1995), permit learners and instructors to see and be seen, hear and be heard, in almost the same way as in the local classroom. Keegan (1995) suggested that electronically linking instructor and students at various locations creates a *virtual classroom*. He continued by saying that,

The theoretical analyses of virtual education, however, have not yet been addressed by the literature: Is virtual education (interactive, live televised instruction) a subset of distance education or to be regarded as a separate field of educational endeavor? (p.18)

Education at a distance should be built on the concept of equivalency of learning experiences. The more equivalent the learning experiences of distant learners are to those of local learners, the more equivalent will be the outcomes of the educational experiences for all learners. This approach to distance education advocates a design providing for a collection of equivalent learning experiences for distant and local learners, even though these experiences may be different for each student. The objective of the instructional designer of distance education is to provide for appropriate, equivalent learning experiences for each student.

Elaborating this theory, Simonson (1995) states that it should not be necessary for any group of learners to compensate for different, possibly lesser, instructional learning experiences. Students should have learning experiences that are tailored to the environment and situation in which they find themselves. Thus, those developing distance education systems should strive for equivalency in the learning experiences of all students, regardless of how they are linked to the resources or the instruction they require. There are several key elements to Equivalency Theory; mainly they are the concepts of equivalency, learning experiences, appropriate application, students, and outcomes.

- i) **Equivalency:** Central to this theoretical approach is the concept of equivalency. Local and distant learners have fundamentally different environments in which to learn. It is the responsibility of the distance educator to design learning events that provide experiences with equal value for learners. The experiences of the local learner and the distant learner should have equivalent value even though these experiences might be very different.
- ii) **Learning Experience:** Second in importance is the concept of learning experience. A learning experience is anything that happens to the student to promote learning, including what is observed, felt, heard, or done. It is likely that different students in various locations, learning at different times, may require a different mix of learning experiences. Some may need a greater amount of observing while others require a larger dosage of doing. The goal of instructional planning is to make the sum of experiences for each learner equivalent.
- iii) **Appropriate Application:** Learning experiences suitable to the needs of the individual learner and the learning situation should be available and that the availability of learning experiences should be proper and timely.
- iv) **Students:** Students should be defined by their enrollment in a course, not by their location. They necessarily seek institutionally-based education, sanctioned by a recognized and accredited organization.
- v) **Outcomes:** The outcomes of a learning experience are those which are obvious and measurable, and these are significant changes that occur cognitively and effectively in learners because of their participation in the course or unit. Outcomes consist of at least two categories: those that are instructor-determined and those determined by learners. *Instructor-determined* outcomes are usually stated as course goals and objectives and identify what learners should be able to accomplish after the learning experience that they could not accomplish prior to participating in it. *Learner-determined* outcomes are less specific, more personal, and relate to what the learner hopes to accomplish as a result of participation.

If teachers, learners, and the public in general identify learning at a distance as the equivalent of what they consider to be traditional learning, then distance learning will become mainstream. If equivalency is not what the public perceives, then distance education will continue to be peripheral to the field of education.

2.4.11 Evaluating Distance Education Theories

To conclude the protracted discussion on the theories of distance education, we must admit that we have not been exhaustive, and we never meant to be. However, the purpose of presenting the views of different thinkers to you was to acquaint you with the major lines of thought that seem to give direction to distance education today. As our purpose is limited, we haven't tried to evaluate each of these theories by arguing for and against them, nor have we tried to compare and/or contrast them with each other.

It may not be a mere accident that the European thinkers feel more concerned about the pedagogies of distance education, whereas the Americans feel concerned about the motivational aspects in distance education. Socio-cultural differences

may have a lot to contribute to such differing orientations. We will find occasions to see in what ways these theories are either already discernible, or may find use in your context of distance education. An environment in which technology, society, economics, politics, and approaches to learning are all in transition suggests that theories, definitions, and the practice of distance education will continue to be contested. This theme of change will both challenge and motivate distance educators and researchers as they strive to understand and develop effective ways to meet the needs of learners around the world.

2.5 LET US SUM UP

In this unit, we have presented to you an overview of the concept of distance education, certain related terms in use, and the concept and scope of lifelong education. The basic purpose of providing this overview is that you should be able to not only explain and distinguish the above terms and concepts but also to read and understand further the materials on these concepts with more clarity. Further, we discussed different theories of distance education to understand the foundations on which it is based. While discussing different theories of distance education we highlighted the contributions of seminal thinkers such as Wedemeyer, Moore, Dohmen, Peters, Homberg, Baath, Sewart, Keegan, and others to the field of distance education. In the discourse, we laid due focus on the evolutionary character of distance education and the relevant theories starting from independent study to re-integration of teaching and learning acts. We have highlighted the diversity in the theories with a view to present to you a comprehensive picture of the theoretical status of distance education and the need for and scope of further theorizing on it.

2.6 ANSWERS TO ‘CHECK YOUR PROGRESS’ QUESTIONS

- 1)
 - i) Holmberg.
 - ii) ‘Independent study’, ‘learner autonomy and ‘self-study’. All these are aimed at promoting individualized learning.
- 2) In correspondence education there is organized instruction and education mainly through written or printed material sent by post to the learners. There may or may not be a provision for face-to-face contact. Distance education employs multimedia — print, audio, video, radio, television, telephone, computers, etc. — approach to teaching-learning, including fact-to-face contact.

Open education is a philosophy that espouses openness in terms of relaxed entry qualifications, flexibility in choice of courses, learning according to learners pace and convenience of learning, use of multimedia for instruction, and so on. Distance education refers to a mode of education which may or may not be open.
- 3) Lifelong education is a broader concept and aims at education of all people of all ages and stages engaged in all walks of life. In essence it aims at paving the way towards a learning society, a society in which every individual is engaged in learning activities throughout the life. All concepts and terms – formal, non-formal, informal, correspondence, distance and open education, etc., — form part of lifelong education.

Implementation of lifelong education requires radical transformation of the very concept of education and complete overhaul of the educational system. It has sweeping implications for learners and their learning processes, teachers and the instructional methods, educational institutions and evaluation of lifelong learning.

- 4) An independent study system is claimed to have the potential to change the learner culture and teacher culture primarily because of the following two reasons:
 - i) In an independent study system, the learner has the freedom to start a programme, to go at his/her own pace and stop his/her learning activities whenever he/she wants to. That is to say, it is he/she who is responsible for his/her progress or failure. On the contrary, in a traditional system of education the learner is controlled by many variables — teacher, classroom situation, examination patterns, time schedule, etc.
 - ii) Learning in an independent study system can be made more and more relevant to individual needs and it is the learning activity which becomes more significant than the teaching effort. And so, the teacher has a completely different role to play in the teaching / learning process.
- 5) As far as learning ‘car driving’ is concerned the objectives are set by the learner himself/herself and not by any external agencies (you can compare it with any traditional teaching programme, in which the learning objectives are set by external agencies — material-designer, teacher, etc.), whereas methods, materials, and evaluation are determined by the instructor. Thus, the learner is autonomous (A) as far as his/her objectives are concerned, but non-autonomous (N) as far as the procedures of learning and the final evaluation are concerned. So, we label the programme as ‘ANN’.
- 6) Four features which are common to an open university and an industry are:
 - a) division of labour
 - b) mass production
 - c) systematisation
 - d) lay-out
- 7) The conversation is ‘guided’ and ‘didactic’ because the course developers guide the distance learners – primarily on academic and pedagogic issues – through easily readable and reasonable colloquial style of presentation.
- 8) A distance tutor helps effect two-way communication by using his/her comments as a tool. That is to say, instead of following the customary way of putting a mark or a grade on the top of the response sheets as an indicator of his/her having gone through them, a distance tutor writes constructive criticism and encouraging comments to help bring about ‘most remarkable improvements’ in learner performance.
- 9) The infinite variety of learner problems is due to:
 - a) absence of immediate feedback, and
 - b) absence of peer group interaction.

Sewart suggests that the problems can be resolved if ‘human-support’ constitutes a significant part in the system of distance education.

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2.8 UNIT END EXERCISES

Unit End Questions

You may write brief notes or full-length answers to these questions in your own interest. It might help you during your preparation for examination.

- 1) Define distance education. Trace the evolutionary trend, if any, in the definitions given by different distance educationists (1000 words).
- 2) List different terms related to distance education. Explain the similarities and differences between and among these terms and also vis-à-vis distance education (1000 words).

- 3) List different theories of distance education. Highlight their relative significance in explaining the practice of distance education (1000 words).



Questions for Critical Reflection

- 1) Do you think there is an evolutionary trend in the theories presented in this unit? Justify your answer with reference to their essential elements.

Activity



Read Section 2.3 once again with a view to: i) identify and write down the similarities and main differences among different concepts; and ii) identify and note down any specific concept(s)/term(s) that you could not understand clearly. Discuss these points with your colleagues, academic counsellors and other resource persons in the opportunities you get at the study centre during your course of study to improve your understanding of the same.

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