
UNIT 12 USER EDUCATION

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12.0 OBJECTIVES

After reading this Unit, you will be able to :

- Understand the concept and meaning of user education;
- Define its purpose and trace its development;
- Explain the role of user education in the broader perspective of educational processes; Identify different components of user education;
- Plan, design and conduct user education programmes for different levels of target audience;
- Identify suitable teaching methods and appropriate media for conducting user education programmes;
- Critically evaluate the effectiveness of user education programmes; and Conceive ways and means to integrate user education and the library.

12.1 INTRODUCTION

Education is a life long process. However, formal education starts at the elementary school level and is said to be complete at the university level after one acquires the highest degree in some discipline. In earlier days, it was the belief that knowledge regarding the use a library was an essential part of 'education-for-life' in order to prepare the students for the continuing process of self-education.

In 1926, Coming, discussing the organisation of a university library in an article in the,



Library Association Record, expressed the view that to learn how to use a library and to acquire a disinterested love of reading were important elements of education.

The education-for-life aspect is more important to-day when the rapid growth of information places greater stress on the ability to continue to learn throughout life. Students are encouraged to develop logical, creative and critical approaches to the subjects studied. In order to do this, they must be taught to be independent. In order to be independent, students need knowledge and skills to find their own way.

The emphasis on self-education has led to increased use of seminars, tutorials, projects, etc. as teaching methods and less reliance on formal lessons and classroom lectures. There is an implicit assumption in this educational change, that learner is capable of finding material relevant to his needs. However, in practice, such an assumption is not valid. In other words, the learner requires to be taught that capability. Only then, student is able to prepare for taking full and active part in the new ways of learning. Another factor which necessitates library use instruction to the student, is the growth of interdisciplinary courses, particularly in institutions of higher education, such courses which cut across the traditional boundaries of subjects, create problems for the student in the location, selection and organisation of the material for study. The mere, quantity of material to be searched, because of the various disciplines involved, requires that the student should be helped to find his or her way. Not only quantity, but the diversity of sources and formats, make the need for help essential. Without suitable training the student would be unable to make efficient use of all the information that is available and potentially useful.

In the beginning of the twentieth century; the service library was regarded as a reactive library providing excellent service for a relatively small group of actual users. Libraries cost a great deal of money to be equipped and run. These expensive institutions are only being used by a small proportion of the potential users. This fact has been reported by Committees such as Parry Committee. The Parry Committee report mentioned that many students were not active users of their academic libraries in U.K.

On the other hand, the concept of a proactive library advocates that an attempt should be made to attract all potential users into the library. In all types of library, it is important to attract as many users as possible. It is no use buying literature, carefully processing and storing it, if no one uses it. Therefore, it has been stated' that money spent on educating and training users is a good investment if this effort increases the use and appreciation of the library: The purpose of user education was not solely to stimulate library use as this is but one of the sources of information. User education- is concerned with the whole information and communication process and one part of this involves the total interaction of the user with the library. User education is central to the whole purpose of library and the effective utilization of information resources. In this Unit, we intend to discuss the concept of user education, the need for such education, the components of user education, the methods by which user education programmes are designed and imparted to different categories of audience, and the techniques relating to the evaluation of user education programmes together with other aspects concerning the subject.

The detailed discussion contained in this Unit on different facets of the theme, the self check exercises and the model answers will enable you to easily grasp the concept of user education and its intended purpose. On the whole, the material contained in this Unit, will enable you to acquire skills relating to different aspects of 'user education' and make better 'information professional' out of you.

12.2 USER EDUCATION

A number of user studies conducted in different countries have established the fact that only a few scientists make the optimum use of libraries and are aware of the various bibliographical tools. "The inference is that, contrary to the opinion of some academics, knowledge of the structure and use of scientific literature is not gained intuitively, but has to be taught". Training in the use of scientific information has been officially recommended by the Royal Society Scientific Conference. The Perry Committee Report included a survey of the undergraduate use of the university libraries in the United Kingdom. The survey showed that: many students were not active users of academic libraries. All these factors



establish firmly the need for imparting training to the users in the use of libraries and information resources. Several attempts have been made all over the world to design and develop programmes for training and 'educating the users in the use of libraries and information resources. Imparting of such knowledge to the users is commonly referred to - as user education'.

12:2.1 Definition

User education may be defined as a process or programme through, which the potential users (may be scientists, engineers, technologists, academics and students) of information' are made aware of the value of information and are motivated to use information resources. In her book on reader instruction, Mews defines this as instruction given to readers to help them make the best use of library. Gordon Wright opined that a student cannot be taught the use of library in splendid isolation, but must be made to see it as continuous process of education in which the various facets of communication are inextricably mixed: Jacques Tocatline(UNESCO) defined `user education' to include any effort or programme which will guide and instruct existing and potential users, individually or collectively with the objectives -

- a) the recognition of their own information needs;
- b) the formulation of these needs;
- c) the effective and efficient use of information services; and
- d) assessment of these services.

It may be stated that user education' is concerned with the- whole information and communication process, and one part of this involves the total interaction of the user with the library. This (user education) should be a continuous process starting with school and public libraries and with the possibility of extension into academic and special libraries. User education is central to the whole purpose of the library and the effective utilization of information resources. The pattern of many academic user education programmes is similar to that proposed at the Royal Society Scientific Information Conference in 1948. It should have one of the courses given to new students to introduce them to library use followed by courses for advanced users on the structure of the literature of given subject fields.

12.2.2 Components

Ideally, "user education" should be a continuous process with the two components, orientation, and instruction, combined as necessary to the needs of the user:

Orientation is basically concerned with ways of introducing the user to the general methods of library usage and services available, and to the organisation, layout and facilities of a particular library: Orientation is related to both cognitive objectives (i.e., understanding) and affective objectives (i.e., feelings and attitudes). In orientation, it is important to try and create the right kind of environment for effective communication between user and the library, staff and to present an image of the library as a pleasant, friendly institution, where help can be obtained. As a result of orientation, the user should feel confident that the library staff is competent and is always willing to help him.

The second component of user education, namely instruction, is concerned with learning to make use of the information resources available in a specific library. This aspect is also known as bibliographic instruction and is concerned with the problems of information retrieval and the techniques of exploiting information sources to the maximum extent. Bibliographic instruction may be given at two stages: as an introductory course, and as an advanced course depending upon the level of the users:

At a practical level, `user education' relates to the organisation of courses - timing, timetabling, deciding the size of group, optimum period of the course, etc. as well as the context of the course itself. Also, as a practical difficulty the basic lack of guiding in libraries has been mentioned in addition to the prevalence of jargon which not only perpetuates the mysteries of librarianship but also does little to create a good image of the librarian: It is not just enough for the student to be stimulated by the librarian to make use of the library. His teachers must provide him with experiences convincing him that using the library is a necessary and rewarding part of education. In other words, to tackle this problem effectively



the user education programme must be integrated with academic teaching programme involving closer cooperation between the librarian and the teaching faculty. As an outcome of such cooperation relevant practical work can be incorporated into user education programmes.

The concept 'course-integrated' user education implies close relationship between library and academic programmes. Different forms of user education programmes have been suggested along the lines of ideal librarian/faculty cooperation. In this context, mention must be made of the concept, of the 'library college' in which the student's dominant learning mode is "independent study in the library, bibliographically guided, intellectually aroused, and spiritually stirred by the faculty".

12.3 DEVELOPMENT OF USER EDUCATION

The history of development of user education has been well-documented. For example, Bonn's 'Training laymen in the use of the library' furnished a survey of the whole field of user education covering upto the period 1958. This was updated through the efforts of Mirwis covering the academic instruction in the USA in the form of a bibliography for the period (1960-1970). Lockwood's (1979) 'bibliography of library instruction contains as many as 934 items arranged in three sections: i) general, ii) types of libraries, and iii) teaching methods and formats'. Apart from such efforts; Tindmarsh described developments in theory and practice of user education in academic libraries in the United Kingdom.

Apart from this well documented record, the concept of user education evolved itself and has been widely-accepted due to the initiative and systematic work of some great persons. The pattern of development is briefly discussed in the following paragraphs.

12.3.1 Pioneering Efforts

The systematic use of the concept of user education owes its origin to Patricia B. Knapp and her 1964 report which mainly attempted at "exploring methods of developing a more vital relationship between the library and college teaching". This project was sponsored by the Monteith College of Wayne State University. Earlham College also tried to provide user education programmes more or less on the same lines. It was during this period that user education was identified with bibliographic instruction and/or course-related library instruction with its own strategy. Bibliographic instruction comprised two components, one concerning the sources for imparting of knowledge; and the second relating to the development of skills essential for imbibing bibliographic instruction which consisted of the following aspects: a) general types of reference works, b) indexing and abstracting periodicals, c) library catalogue's, d) principles of knowledge organisation, e) search strategy, and f) subject analysis.

The role of library in higher education has been a subject of debate for long. In 1934, Louis Shores brought in the concept of 'Library Arts College'. This concept gradually changed to 'Library College'. The purpose of 'Library College', is to increase the effectiveness of student learning, particularly through the use of library centred independent study with the help of a bibliographically expert faculty. The Library-college is concerned with changing the mode of instruction from the class room lecture arrangement with the library as a supporting agency, to the carrel or room in the library with the teaching/learning process dependent upon the individual and the independent efforts of the student. The pioneers i.e., Louis Shores, Patricia B. Knapp, and Thomas G. Kirk were essentially loners, despite the fact that they received some institutional support for their experimentation in this direction:

12.3.2 Institutionalisation of User Education

In the, process of institutionalisation of user education the lead was taken by the Council of Library Resources and Association of College and Research Libraries in USA. Actually, it was the British Library Research and Development Department and the centre for Research in user studies which promoted and gave impetus to the development of user education



programmes in U.K. This institutional patronage was mainly responsible for a number of important user education projects.

12.3.3 UNISIST Programme: User Education

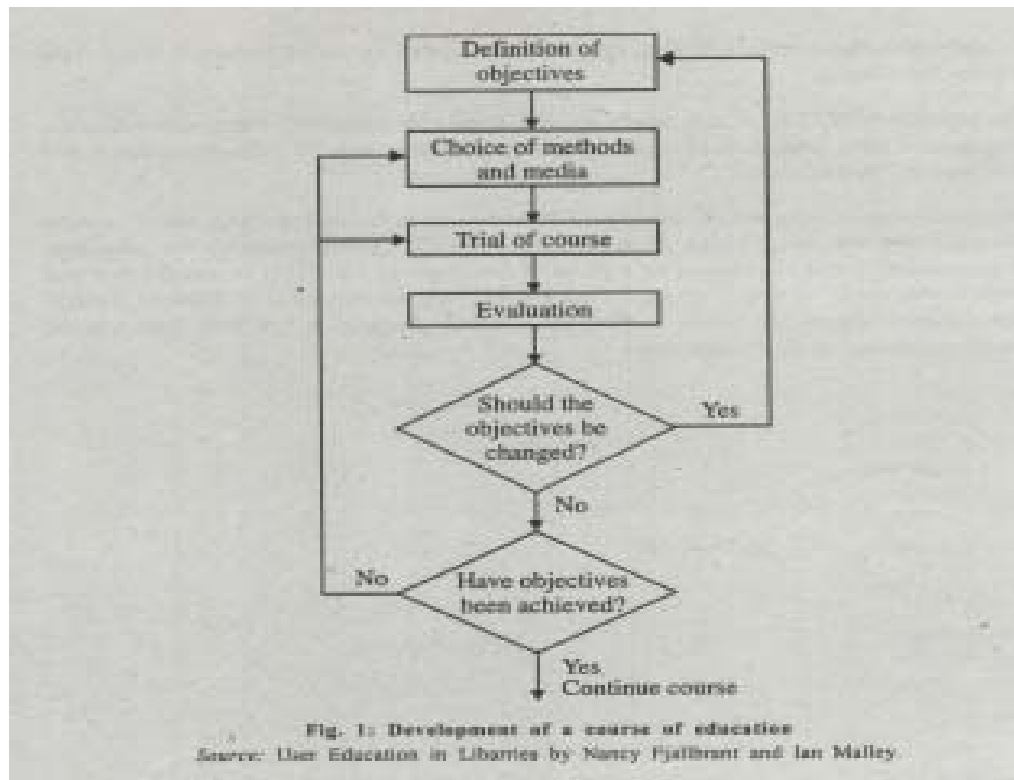
The basic focus of user education programmes has all along been in the direction of academic institutions, with the American activity being concentrated towards under-graduates and the British programmes emphasising on post-graduate and research students. In the case of less developed countries user education programmes have got to be geared towards developmental processes. UNESCO under the UNISIST Programmes, attempted to make user education programmes initiated in less developed countries. UNISIST promulgated the UNESCO General Information Programme (PGI) in 1975. The UNISIST Information Policy objectives lay stress on user education. The UNISIST document notes: "basic training in the use of - existing information sources, obtaining feedback from users on the results of information needs, studies, and involving, as wide range of users as possible in any new experimental services". The Bangkok and Rome Seminars (UNISIST) 1976 considered user education as an important factor in the National Information Policy of any country. The Rome seminar recommended that National Policy on User Education should be formulated as an integral part of the national policy and in correlation with the national education policy.

There have been many conferences and seminars at both international and national levels on the theme of user education. One of the earliest conferences on the subject was the Fourth Triennial Meeting of IATUL (International Association of Technological University Libraries) held at Loughborough, U.K. in 1970. The theme of this meeting was 'Educating the library user'. The first international conference on Library User Education was held at Cambridge in 1979 with the theme 'Library User Education: are new approaches needed?' This was followed by the second conference held at Oxford in 1981. This conference covered user education in different types of libraries. Other examples of international seminars on various aspects of user education are the Anglo-Scandinavian seminar on library user education held in Gothenburg, Sweden, in 1976; Workshops held at Essen, Federal Republic of Germany in 1981 and at Cranefield Institute of Technology, Melbourne, Australia in 1981 and a seminar on user, education in the online age' held in Gothenburg , in 1982.

It may be stated that the early development of user education was largely concentrated in English speaking countries - mainly Britain, USA, Australia and Canada. However, during the last two decades there have seen a rapid growth in user education programmes in Scandinavia. During the last 10 years or so other European countries have been concerned with the development of user education and have been paying increasing attention in this direction. Japan is actively concerned with the user education movement and in China; end-user training has been a successful activity.

Indian Scene: There has been some activity in India too, as far as development of user education is concerned. For example, the INSDOC, New Delhi and the DRTC, Bangalore, ' have organised seminars and workshops for the promotion of user education. The IASLIC, Calcutta organised a national conference on User Education at Waltair (AP) in 1981 and produced a volume of papers on the subject. 3ARI (New Delhi) has made efforts to organise a special course on "library use, reference compilation, scientific paper writing and proof correction": This course is not based on any standard guidelines such as UNISIST guidelines. Except for some voluntary efforts on a sporadic basis, no systematic effort has, been 'made for institutionalisation of user education in India.

It may be mentioned here that the concept of user education caught the imagination of librarians and information professionals all over the world: There have been three streams of experience so far as user education is concerned . Historically speaking, the American experience is said to be innovative, because it has laid the basis for others to follow. '17re names of Louis Shores, Patricia B. Knapp and Thomas Kirk would be remembered as pioneers. It was through their initiative and leadership that user education came to be accepted widely in USA. The next step in the development was the institutional framework pioneered by Eastern Michigan University through its various activities. Yet another major step in this direction was statement of objectives of the Association of College and Research Libraries in which user education received attention. This process of



12.4.1 Goals and Objectives

Goals and objectives can be grouped for the purposes of convenience into three main groups: cognitive, affective and psychomotor. In library user education, the objectives are to be found mainly in the cognitive and affective domains.

Cognitive goals and objectives are concerned with understanding various concepts. Within cognitive domain (area) the goals and objectives can be arranged according to degree of complexity - from complex to simple and from abstract to concrete.

Affective goals and objectives are concerned with feelings such as whether the student wants to and subsequently, does behave in various educationally desirable ways, as for, example the pleasure involved in making use of library resources in order to find information.

Psychomotor goals and objectives are concerned with coordinated physical activity such as the use of a computer terminal. There is usually a close relationship between cognitive and affective objectives. Thus, in library user instruction in the cognitive domain the student should know how to make use of specific library tools, such as catalogues and abstracts, when asked to do so. In the affective domain the student will feel confident in using appropriate library resources in connection with his information needs. It is always better to involve students in the process of decision about educational goals and objectives.

12.4.2 Goals and Objectives of Library User Education

One of the important developments of user education has been the -growing realization that it is important to set goals and objectives, while planning library user education. Concern over the lack of guidelines for instruction in library skills has been expressed by some authors like Lubans and Stevenson. In the United States, the Tull name ACRL Task Force on Bibliographic Instruction played an important role in increasing awareness of the importance of instructional goals and objectives and a set of model objectives have been" included in the ACRL Bibliographic Instruction Handbook, 1979.

It may be mentioned that the goals and objectives for programmes of library user education must be in agreement with the general aims of the university library; these aims must in turn,



be related to the goals and objectives of higher education: "The general" goals of a university library may be expressed in the following way:

- 1) To contribute to the realization of the aims of the university with regard to teaching learning and research by acquisition of printed and non-print material necessary to cover present day and future information needs;
- 2) To register and store the material acquired in such a way that it not only permits but even actively stimulates the use of this material;
- 3) To adopt these information resources to the changing needs of the university and society;
- 4) To contribute to the integration of both national and international information resources with in the university.

It is to be noted that one of the ways of stimulating the active use of information stored in the library is by teaching the library user how to obtain information from the material available. Thus, a general goal for a programme of user education for any type of library is to create awareness of the resources available. In special libraries, for subject like science, medicine or technology, where the rate of growth of literature is very rapid, the need for user instruction is particularly critical.

Library user education is not part of a separate academic discipline. It consists of a series of-of-skills which can be made use of in connection with different academic studies. Hence, 'i education -in library use should be closely integrated with the teaching programmes which prevail in different academic disciplines. Therefore, there is a great need for cooperation between library staff, academic staff and the student community for its successful implementation.

In the past, there has been a prolonged debate relating to the goals and objectives for library user education: Organisations like ACRL in the USA and ASLIB in U.K have attempted to develop their own proposals and guidelines in this direction. Information professionals like Hutton, Scrivener and Hartz have communicated their views on the subject. Scrivener while discussing the general aims for university library user education programmes describes the following as a summary of what any programme might aim to achieve: `the details will necessarily vary in different situations but teaching should establish and promote those traditional skills without which no student can make adequate use of this library: i) an understanding of library arrangements; physical, bibliographical and conceptual; ii) a knowledge of sources which will be appropriate in any given situation; and iii) the ability , , to interpret his own peed so as to frame relevant question; iv) an awareness of search techniques including the ability to devise serviceable routines and finally the student needs skill in the art of evaluating his sources and presenting his materials".

The main goals identified for a user education programme at Chalmers University of Technology Library, Sweden have been formulated in the following way:

- the ability to apply the principles of scientific communication to the problems of information retrieval;
- the ability to use the different tools available in the library in order to obtain information useful in connection with studies and later work as and when required:

Once the broad goals for the programme are formulated, it would be possible to draw up a number of specific objectives within the broad framework: It is always beneficial to make a distinction between library orientation and library instruction. It may be emphasised that . library orientation is concerned with enabling the student to become aware of the existence of the library and the services available there, aiding the student to learn about the general use of the library; while library instruction is concerned with enabling the student to obtain information required for specific purpose by making full use of the resources and material available in the library and is concerned with problems of information retrieval.

12.5 TEACHING METHODS AND MEDIA

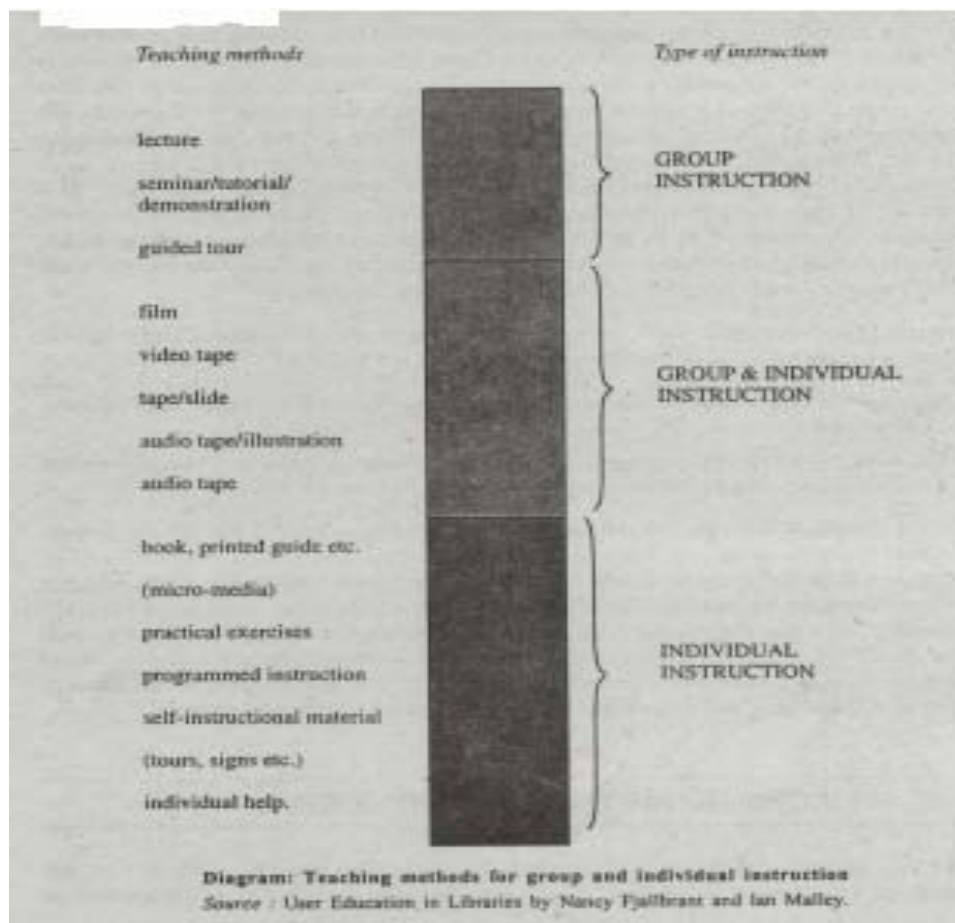
Education has been defined 2s a process which changes the learners. This process can be affected by a variety of factors. There are four basic factors that affect learning in



practical situations. They are: motivation, activity, understanding and feedback. These factors might be considered in relation to library user education programme as well. Choice of teaching methods and media depends on the learning/teaching situation, the subject material; the students and the teachers. No single method will be suitable for all situations. However, teaching methods may roughly be categorised into those which are suitable for group instruction, those suitable for individual instruction and those suitable for both. These methods are depicted in the diagram given below.

Teaching methods may use visual or auditory stimulation or a combination of both. It is stated that methods which make use of a combination of sensory inputs are likely to be more effective than those which rely on a single channel of communication. In fact, interaction between individuals concerned in the learning/teaching situation also affects the learning process. The interaction may be categorised into teacher-student and student-teacher interaction: Revill is of the opinion that in programmed instruction students work as isolated individuals. Therefore, there is little or no interaction with other students or with teacher. This situation might be advantageous to introvert students but may not favour the extrovert students who prefer the companionship and the competition of the classroom. Described below are various teaching methods for library user education and indicates the factors affecting the learning process along with the number of sensory inputs utilised and students-teacher, and student-student interaction. From the description it might be observed that no single method is suitable for all learning/teaching situations or, for all individuals: In fact, various methods and media should be used to supplement each other in any given programme of education: However, traditional library instruction has made considerable use of the lecture method for large groups, the guided tour for smaller groups and individual help for those who ask for this at the information desk.

In the following sections the use of various methods and media for library user education are briefly discussed.





The Lecture

Lectures are the most common method of instruction. They are used for teaching large groups of students. In lecture method of teaching both auditory as well visual sensory inputs (via blackboard or overhead projector) are made use of. The lecture as a form of communication in education has been strongly criticised: The great disadvantage of this method is that the speed of delivery of information can not be controlled by the receiver and repetition is not possible without the provision of printed hand outs. However, lectures provide an opportunity for personal interaction and some feedback could be obtained from the students. Lecture is an unsuitable method for conveying information about bibliographic data. It is only suitable for providing a general introduction to a course on information retrieval. The lecture method may be more advantageous to a mature group of audience rather than beginners.

Seminars, Tutorials and Demonstrations

These are organised for small groups of students/users. Compared to lecture method, seminars, tutorials and demonstrations are methods which provide opportunity for active involvement of users in learning process through greater interaction between the teaching staff and students. In seminars, the atmosphere tends to be less formal and more congenial for integration between the teacher and the taught. It is possible to provide motivation and to see that students are actively involved by means of practical exercises. During the practical sessions the students receive feedback as to their progress. For example, an attempt can be made to relate new information to existing knowledge. It is rather difficult to explain the use of various specific tools for information retrieval in absence of source materials. It will be ideal to conduct seminars relating Library user education in libraries. This would facilitate demonstration of specific tools for information retrieval. Demonstrations might prove to be a good way of teaching small groups of students/users the use of various tools used for information retrieval. They may be provided with an opportunity of actively searching for information about some topic in which students/users are interested.

The Guided Tour

This is one of the traditional approaches commonly followed to orient the freshmen to the use of the library. This type of orientation is often given when the students have little or no motivation actually to use the library. From the point of view of library administration the guided tour type of library orientation makes heavy demands of library staff time.

"A better programme for short library orientation is the self-paced printed or audio tour followed by appropriate exercises. This method brings library users into the actual building where they carry out a series of practical tasks concerned with the location materials, photocopying, use of catalogues and other routines. Self guided tours have been used successfully in many libraries".

Audio-Visual Methods

In recent years, there has been an increasing interest in the use of audio-visual media in teaching and learning process in general and for library user education in particular. A catalogue of AV media and CAI software for user education and librarianship have been published in 1982. They contain useful information in this field. It is stated that there are few areas in library education where it is necessary to use moving images. As a result, the information can be conveyed in a series of units such as slides or overhead transparencies or printed illustrations. This would suggest that the tape/slide medium or the use of audiotape in conjunction with printed material would be suitable for library user education. The advantages of tape/slide productions are: flexibility, constant availability, speed of presentation and the clarity associated with the exposition apart from being easy to update:

Video-tapes

Videotapes like films can be used to convey both motion, and in some cases, colour. It is possible to re-use the tape thereby making and updating less expensive. However, updating of video tapes is a time consuming activity. Video-recording can be used to create an atmosphere of reality and convey moving images but these requirements are not usually met with in library instruction. Video recording can make use of tape, film or discs for actual storage of recorded material. But, one of the problems facing libraries in the use of video materials has been the lack of standardisation between different systems. It would appear



that cassette systems are more appropriate in the context of library education. There are at present two types of TV cassette systems; for playback alone, and systems for both recording and playback: But the main problem is lack of compatibility between different systems. The advantages of these methods are that they allow for careful preparation of material and can make use of the best teachers repeatedly available as the recorded material can be used many times. Internal TV systems can use displays suitable for audiences of different sizes; whereas the personal contact of teacher or seminar is lost in this method. The students cannot stop in the middle of the programme and ask questions and discussions cannot be organised. In other words; the instruction tends to place the student in a passive atmosphere.

Programmed Instruction

The programmed instruction can be carried out by the use of a variety of media such as printed books, automatic projection of slides or by means of a computer-aided instruction (CAI). Programmed instruction is associated with many advantages for library instruction. For example: student/users can work at their own pace. They can actively participate in the learning process and receive direct feedback in respect of their progress. It is also possible for the teaching staff to obtain a record of the student's progress.' Of course, the disadvantage is that of the isolation factor on the part of the student. Extrovert students who like `companionship and competition of the classroom might not prefer this method of learning. CAI instruction is largely developed in the USA.

Signs and Informational Graphics

Sign systems and informational graphics are one of the most basic methods available for providing orientation about the use of the library. A study of British libraries conducted by Graphic Information Research unit at the Royal College of Art revealed that the general standard of graphics was poor, signs in particular tended to vary in design and construction. " However, in the US; there has been a marked increase in this important aspect of user education in recent years and a number of handbooks and guides have been produced in this area.

"Librarians started to apply systems approach in which different types of signs are used to illustrate different functions such as orientation, direction, identification, instruction, prohibition or regulation or current awareness. These functions fall into two main types: signs related to direction finding and signs related to the use of library resources. If signs are to be effective for user orientation, they must be carefully planned with regard to position, content and presentation". Well designed signs are expensive but this expense becomes a good investment in that the signs will last for a long time and help to overcome the physical barriers of the library.

Individual Instruction at the Reference Desk

It is believed that the best form of library instruction can be imparted by personalised service at the reference desk: This is because a user asks a question about the use of some part of the library when he is motivated to learn that aspect. The student/user is actively involved in the learning process and is receiving tuition from an expert. The difficulty associated with this type of individual help is that it may provide immediate relief to the students/users, but not necessarily the understanding and background knowledge to cope up with similar situations that the student/user might face in future.

In summary, it might be said that choice of teaching methods and media depends on the learning-teaching situation; the subject material and people to whom training has to be imparted and the staff involved in the training process: The methods and media for library user education should preferably involve the active participation of the student/user at a point when he/she feels motivation. In practice, a combination of teaching methods and media might provide the ideal basis for programmes of library user education.

Self Check Exercises

- 3) What are the goals and objectives of library user education?
- 4) Mention the various methods and media used for library user education.

Note: i) Write your answer in the space given below.



- ii) Check your answer with the answers.

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12.6 INFORMATION TECHNOLOGY AND USER EDUCATION

During the last two decades computers are increasingly being used for information activities. This has resulted in rapid growth of computer-based online information retrieval systems. Databases and computer stored information files are produced by many organisations such as American Chemical Society (Chemical Abstracts) and the US National Library of Medicine (Index Medicus) etc. These databases are now widely accessible for information searching: from local terminals which are linked to the central computer via a telecommunication network. Such efforts have resulted in the development of a number of online information retrieval systems. The use of these systems depends on the education of users and the availability and functioning of this method of information retrieval: The aim of this section is to examine the goals and objectives for online user education and to suggest examples of methods, media and training programmes suitable for accomplishing these goals and objectives.

12.6.1 Groups Involved in Online Education

Different groups are concerned in online orientation, training and education. They are:

- 1) Database producers
- 2) System operators'
- 3) Institutions responsible for terminal operation for example; libraries or information centres
- 4) Library schools
- 5) Intermediaries
- 6) End users

The motivation for each of these groups is expected to vary considerably. Generally, the motivation for taking part in such training programmes might be considered partly financial, and closely linked to the sale of a specific product - database or information system: For the sake of convenience online education programme may be divided into two components: orientation and instruction. Orientation is concerned with enabling the user to learn of the existence of computer-based information retrieval and the services available. On the other hand, instruction is concerned with enabling the user to learn in detail how to carry out computerised information retrieval. The goals and objectives for online user education may be categorised in terms of the two main groups namely the end-users and the intermediaries.

12.6.2 Main Goals

- i) To enable an end-user to carry out online information searches either himself or with the help of an intermediary, within his own subject field, as and when required, in connection with information needs:
- ii) To enable an intermediary to carry out online information searches, for end-users, within many different subject fields, from the available databases, on the various information retrieval systems.



12.6.3 Methods

In the earlier section a detailed account has been provided on the teaching methods, and media appropriate to library user education in general. In addition to the methods discussed earlier, it must specially be noted that as online retrieval is an interactive process, particular attention needs to be paid to methods which permit the display and experience of this interaction.

In order to demonstrate online information retrieval, it is necessary to be able to show moving images generated in the computer search, thereby creating a feeling of reality. The ultimate aim of online, instruction, for both end-users and intermediaries, is to be able to carry out online information searches. Therefore, it is essential to practise on a real system. This forms part of 'learning by doing' concept, which is also important in other forms of library user education. The need for live online instruction has been recognised by systems operators, who have provided various aids for teaching. In MEDLINE system; for example, the user can interactively ask for instructions at the beginning of the search, or for assistance during the search, when part of the instructions are given as requested. The SDC (System Development Corporation) provides an online database over databases, DBI (Data Base Index) where the user can type in the subject area -of interest and receive information as to the appropriate databases ranked in order of suitability for searching.

One of the most common ways of providing training for intermediaries is by letting them observe and work with a trained searcher. This is considered to be an essential part of intermediary training.

Real 'hands-on' training in online searching is an important element in the education of end users in computerised information retrieval. This would enable the students/users to be motivated and involve themselves actively in the learning process.

Choice of teaching method is often dependent, not only on the learning effects, but also on availability of equipment and cost of use.

12.7 EVALUATION OF A USER EDUCATION PROGRAMME

Evaluation has been described and interpreted in different ways by educational research workers: Evaluation is concerned with the collection of information about the effects of an educational course or programme. It involves the comparison of observed effects with expectations or intentions. It is important to consider why evaluation is carried out when trying to understand what evaluation is.

"Evaluation is concerned with the collection and analysis of information about the input, in terms of educational potential, the variables affecting the educational process, and the end product or output. Evaluation can be directed towards the various aspects of the educational course or programme." The basic purpose of evaluation is to collect and analyse information that can be used for rational decision making. In the context of library, user education, evaluation is also concerned with the economic use of specific libraries and information systems in general. The goals and objectives of a successful programme of library user education must be based on the synthesis of the needs of students, academic staff and library staff. Evaluation, based on attempts to measure the realisation of prespecified goals and objectives, must be multifaceted, concerned with library use and information skills, attitudes to libraries, effects of various instructional programmes, and use of a given library or information resources.

12.7.1 The Scope of Evaluation

"Evaluation might range from the study of details such as the use of given teaching methods or media, through the effects of specific courses, whole library instructional programmes to the extreme of general educational systems".



12.7.2 Methods of Evaluation

There are three methods which are normally used for evaluation purpose. They are; i) the psychometric, ii) the sociological or management, and iii) the illuminative or responsive.

Psychometric evaluation is based on the assumption that it is possible to expose experimental and control groups to different treatments, while all other variables are controlled, and to measure the changes by means of psychometric tests, achievement tests or attitude scales. Thus, the experimental group may be exposed to a new type of course whereas the control group follows the traditional course, in every other respect the two groups are exactly comparable. Pre-tests and post-tests are given to both groups and the analysis is concerned with establishing significant differences in performance of the two groups. This evaluation procedure is concerned with measuring output in terms of pre-specified goals and no attention is paid to unexpected effects:

The sociological evaluation method is used in the study, of changes in the structure of an organisation. This type of evaluation makes use of interviews and questionnaires:

Attention is focused on the organisation undergoing the change, rather than on comparison with any control group.

The third type of evaluation has been called illuminative evaluation by Parlett and Hamilton. It is not limited by the initial formulation or aims, but allows the expression of unexpected results. The actual implementation of an innovation is regarded as the most important part of the study, Research is focused on what is actually happening in response to the innovation, This type of evaluation is not concerned so much with testing of an educational programme, but with describing and understanding the conditions in which the programme works, and how the participants are affected by it: Observational studies and explorative interviews are used to obtain the information.

12:7.3 Need for the Evaluation of Library User Education

Of late, librarians have become more particular regarding the evaluation of programmes of library instruction. In 1976, Brewer and Hills observed that "librarians should take evaluation more seriously and to think more professionally about their teaching commitment". A critical examination of the bibliographies and handbooks on user education reveals that evaluation is not well documented as compared to other aspects: It might be mentioned that while there is a growing increase in awareness about the importance of evaluation in library user education programmes, not many examples of systematic evaluation of library, user: education programmes are presently available.

One of the examples cited in this- connection is that of the evaluation studies conducted at Chalmers University of Technology Library. A review of work done in library user education programme evaluation reveals that evaluation has been carried out in many different ways in an attempt to study the value of such programmes and the measurement of the effects of such educational programmes on those who participated in such programmes. : It might be emphasised that evaluation and the feedback received in the process will lead to the improvement of such programmes.

Self Check Exercises

- 5) How Information Technology helps in providing user education?
- 6) What is the need for evaluating user education in libraries.

Note: i) Write your answer in the space given below.
ii) Check your answer with the answers.

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12.8 SUMMARY

An attempt has been made in this Unit to explain to you the concept of user education, its purpose and the different teaching methods and media appropriate for user education programmes in library user education. In course of discussion, the impact of application of technology on user education was examined. The special requirements necessary for providing user education programmes relating to online searching and computer-based information retrieval were emphasised. The Unit concludes with a brief account of the evaluation aspects relating to library user education programmes. It is hoped that the information furnished in this Unit along with self check exercises and their model answers will enable you to gain sufficient knowledge on user education in libraries.

12.9 ANSWERS TO SELF CHECK EXERCISES

- 1) User education is described as a process or programme through which the potential users of information are motivated to use information resources. User education has basically two components such as: i) orientation and ii) instruction.
- 2) The development of user education originated since 1934 when Louis Shores brought the concept of "Library Arts College" with the objective of developing the student learning through the use of library. Patricia B.K. Knapp and her 1964 Report also attempted at "exploring methods of developing a more vital relationship between the library and college teaching". Afterwards various institutions and associations in USA, UK and India as well as UNISIST programme and user education organised seminars and workshops to promote user education.
- 3) The goals and objectives of library user education programmes are to: i) create awareness of the resources available, and ii) acquaint a series of skills which can be made use of in connection with different academic studies. '
- 4) Lectures, seminars, tutorials and demonstrations guided tour, video tapes, programmes instruction, graphics, individual instructions are various methods and media used for library user education.
- 5) Computer-based on-line Information Retrieval Systems are helpful to users to carry out on-line information searches either himself or with the help of an intermediary.
- 6) The need for evaluating user education in libraries is to study the value of different programmes and measurement of the effects of such educational programmes on those who participated.

12.10 KEY WORDS

Affective Goals and Objectives :

They are concerned with feelings whether the student wants to, and subsequently does, behave in various educationally desirable ways. They are of long term importance for the behaviour of the student.

Cognitive Goals and Objectives :

These are concerned with understanding various concepts. Within domain they are arranged according to degree of complexity.

Goal:

Used to express broad, general statements of purpose.

Illuminative or Responsive Evaluation :

This type of evaluation emphasises participant observation and interviews as means to obtain an



	overall view of education programmes.
Objective:	Used to express specific short-term aims, in agreement with the main goals.
Psychometric Evaluation:	It has evolved from the discipline of psychology and is based on the assumption that it is possible to expose experimental and control groups to different treatments, while all other variables are controlled, and to measure changes by means of psychometric tests, achievement tests or attitude scales.
Psychomotor Goals and Objectives:	These are concerned with coordinated physical activity, such as the use of a computer terminal.
Sociological Evaluation:	The management or sociological approach to educational evaluation has developed from the discipline of industrial sociology. This method is used to study changes in the structure of an organisation.

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