16



MODULE - 5A MANAGEMENT OF LIBRARIES Notes

LIBRARY STAFF

16.1 INTRODUCTION

Human resources are the most vital resource in any service organisation. Similarly, well-informed library staff is one of the greatest assets of any library. Most of the libraries put lot of efforts into defining the competencies, i.e., skills, knowledge, attitudes, and behaviour, necessary for library staff to provide best services to their users. The staff thus constitutes the most vital resource of any library. This resource is primarily responsible for transforming all other resources into valuable products and services. It is, therefore, necessary to build up this resource with great care and attention.

Different categories of staff, at various levels, are required to operate several functions of a library. In this lesson, you will learn the processes involved in building staff strength of a library.

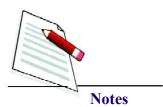


16.2 OBJECTIVES

After studying this lesson, you will be able to:

- recognize the staff of an information organization as a vital human resource;
- explain requirements of staff in Academic, Public and Special libraries;
- list the categories of library staff and explain their functions;
- outline a staffing framework on basis of activities of the libraries;
- identify different types of staff required for a library;
- list various stages of recruitment process; and
- describe the evaluation of staff performance at all levels.

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16.3 STAFFING

In lesson 15 of this module, you have learnt the seven elements of management. Here, we will discuss staffing, the most necessary element of management.

Staffing includes manpower planning that determines the quality and quantity of employees of libraries. This exists at all levels in relation to size and scale of operations of a library. Staff of the library is not only a vital resource but also an invaluable asset. It is the live human resource that uses all other resources optimally to achieve the goals and objectives of a library. The performance of the staff is entirely dependent on the quality of the staff. Building up the staff strength, therefore, should be given the highest attention. It involves a series of steps as given below.

- Manpower planning that determines the quality and quantity of employees of a library, at all levels in relation to its size and scale of operations
- Recruitment and Selection
- Employment and Induction
- Roles and Responsibilities
- Performance Appraisal
- Staff Training and Development

16.3.1 Manpower Planning

Manpower planning is concerned with employing persons for performing various activities of libraries. Its objectives are to ensure that right persons are employed for different positions at the top, middle and lower levels of management. It is, therefore, necessary to determine the categories of staff and their number(s) required at each of the three levels. At each level, functions, duties, responsibilities, authority, etc. are different and varied. Hence, competent persons with appropriate qualifications and years of varied experience, should be employed to obtain the best results.

The staff employed for a library can be categorized into 4 groups as given below:

- Professionals
- Semi professionals
- Non-professionals
- Support staff

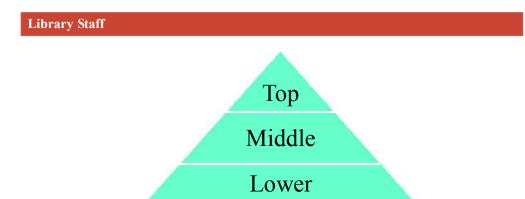


Fig 16.1: The Three Levels of Management

16.3.1.1 Professional staff

The categories of staff to be employed in the libraries are usually at the three levels of management as indicated in the above figure. Their functions, responsibilities, authority, etc. are explained below:

At the top level, qualified library and information professionals are required. They are usually professionals with experience. They carry out functions in various roles, hold responsibilities and are in a position of authority. They are involved in planning, policy and decision making. They set procedures and practices of functions and operations of a library, exercise control and discipline in the library. Designations of this level may vary, but in general, there would the Chief or a Deputy librarian(s) functioning at the top level.

At middle level, assistant librarians and many of the senior professional assistants function. They usually take care of the technical activities. They also act as a link between the top and the lower level.

At the lower level, junior professional assistants and semi-professionals function. This level takes care of the various routine activities of the library.

The number of professionals at the top level are few in number, more at the middle level and many more at the lower level. This depends on the size of the library in terms of its collection strength, various activities and number of users.

16.3.1.2 Semi-professional staff

The semi-professional staff of the library are engaged in performing library routines and techniques under the guidance of the professional staff. They are personnel with training in library science usually a diploma or certificate in library and information science (LIS). Their designations may be library assistant, technical or professional assistant, junior cataloguer or equivalent. They usually perform the routine professional and technical activities. In many

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libraries, this category of staff works as support to professional activities under the direction of a senior professional.

16.3.1.3 Non-professional staff

Non-professional staff may be subject specialists, computer hardware and software technologists or other technical experts, appointed for specific purposes for shorter duration. They may not form part of the regular staff. Their role is advisory and they are not assigned or entrusted with any managerial or routine responsibility. They function under the supervision and control of the Chief Librarian and occasionally under Deputy Librarians, depending on the department/ section they serve. Only in large libraries with a number of functions, non-professional staff may be employed permanently.

16.3.1.4 Support Staff

Support staff usually comprises of administration and accounts personnel, who take care of the office functions, such as personnel, purchase and store, office maintenance, and similar other responsibilities. Besides this, staff is also required for cleaning work, sanitation, security, gardening, driving vehicles, etc. This staff has the respective appropriate qualifications and experience related to their nature of work.



- 1. What do you understand by staffing?
- 2. Elucidate various steps in manpower planning?
- 3. Describe the three levels of management?
- 4. List the various categories of staff?

16.3.2 Recruitment and Selection

Recruitment is the second step in the process of building up the staff strength of a library. Usually the recruitment process starts with advertisements in daily newspapers, employment news publications, professional periodicals and on internet. Applications are invited from suitable candidates in a prescribed format. At times, TV channels and radio broadcasts announce news/information on jobs and positions for an organization.

In general, the applications in a prescribed format are required for the sake of convenience of screening and scrutinizing. Usually, advertisements seek data

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related to the applicants, i.e., name, age, contact address, telephone number, e-mail id, academic and professional qualifications and prescribed years of experience for the posts. The advertisements carry the name(s) and/or designation of the vacant position(s), job description, number of posts, salary scale and total emoluments, terms and conditions of service, last date for the receipt of applications, etc. Sometimes career prospects are also indicated.

Registrations by persons seeking jobs in employment exchanges of government, private placement services are other means through which persons can be recruited by organizations.

Libraries of academic and research institutions usually follow the conventional patterns of recruitment procedures, except under special conditions of recruitment for senior positions. Libraries attached to smaller institutions follow their own respective general recruitment practices of the parent organizations for filling up positions in libraries. Public libraries under government follow their usual procedures of recruitment.

16.3.2.1 Selection

Selection of suitable candidates for specific positions in all types of libraries deals with identifying and matching right applicants with the requirements of positions to be filled. Screening and short listing applicants for personal interviews are the next step. For positions at the middle and lower categories, written tests may be conducted to filter applicants before making the final list of persons to be called for personal interviews.

16.3.2.2 Personal Interview

The candidates who are shortlisted are called for interview to assess their personality in terms of attitude, aptitude, approach, communication skills, behaviour and other traits that ensure the candidates 'suitability for the position. For senior level positions, besides qualifications, the candidate is judged on the basis of individual's ability to lead, take decisions and work in coordination with the junior staff. For the top position, i.e., to head the library, candidates, at times, are required to make an oral or a formal presentation on a topic of current interest.

16.3.3 Appointment and Induction

The selected candidates are issued appointment letter, according to their placement in the selected panel with all terms and conditions of employment.

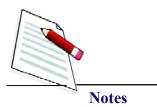
The next important aspect is to make the appointed candidate feels that he/she has joined the right organization. This is termed as 'induction' which refers

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to inducting the candidate into the organization that he/she has joined. The person is introduced to other staff members at various levels. Rules and regulations of the organization, duties and responsibilities, discipline, etc. are aspects that the appointed persons should know from the beginning. The induction responsibility is usually assigned to an experienced professional at middle level to make the new employee feel at home in the new organization.

Orientation of new entrants is required not only to the immediate environment but also to the whole organization's activities, functions, culture, etc.

16.3.4 Roles and Responsibilities

The top level person, usually the chief librarian should have the highest professional and academic qualifications with experience, abilities and competence to set achievable goals and objectives. He should have ability to set targets to be obtained in a particular period, establish measurable standards and norms for every operation, exercise authority and enforce discipline.

The middle level persons, should have the professional and academic qualifications with experience to operate as heads of departments. They should be able to get the different operations executed efficiently to achieve set targets.

The lower level staff should be more in number compared to middle level, who should perform at operational level which includes routines and repetitive duties related to various work tasks.

Each of the above levels of staff must perform at the highest performance level as per standards to ensure the expected results.

The main functions of almost every library are:

- Collection development (Acquisition)
- Technical processing (Classification and Cataloging)
- Circulation of documents
- Stack room maintenance
- Maintenance of readings rooms
- Display of selected reference books for consultation and use
- Reference and Information services
- Office management

The staff is distributed to these units, taking into account the attitude, aptitude, interest and experience of the staff while allocating different duties and

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responsibilities. This is to ensure not only best performance by the staff but also to their satisfaction.

Every position in an organization and the person who functions in that position has a role to play in achieving the targets set in tune with the goals and objectives of the organization. Appropriate duties with responsibilities and the necessary authority to execute the operational functions are assigned to every supervisory position. Authority and responsibility should go together.

A library primarily is a service-oriented organization and the users are its customers who should be served just as a business house handles its customers. The library, therefore should give the highest priority to customer satisfaction. Every department of a library and its sub-divisions must keep this as a basic principle and duty, to serve the users of the library. Even the housekeeping activities such as collection development, technical processing that do not have any direct contact with users, must understand that the library functions for the satisfaction of users which is its primary goal. Everything they do will have a direct bearing on the use of the library. The technical processing division, should focus attention on the library catalogue as a reliable user guide. These policy decisions will help the service divisions of the library in projecting the image of the library as an excellent service center.

The staff in service units, having direct contact with users, have to be ready for users of all temperaments. At times, there may be provoking situations that may result in their patience being tested. For instance, a privileged user, may sometimes seek special concessions for a liberal extension for returning a book which is in great demand, or seek exemption for non-payment of overdue charges, or a reference book to be lent and so on.

INTEXT QUESTIONS 16.2

- 1. List the steps in recruitment procedure.
- 2. Why is induction necessary?
- 3. What is the need of public relations characteristics by service staff of a library?

16.3.5 Performance Appraisal

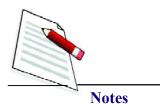
The library and information service activities are not one-time activity but are continuous ones. The performance of the library staff at all levels has to be assessed periodically to keep the staff strength at optimum efficiency. Their future growth and development is also an important aspect. This assessment

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is known as performance appraisal, irrespective of the position of the staff in every organization. Performance appraisal is measurement of performance and efficiency of every employee with regard to their assigned duties and responsibilities. There are norms and standard yardsticks designed to assess the performance efficiency at optimum levels for every type of work. While it is much easier to measure quantity of work done, measuring quality of work is far more complex.

In libraries there are many tasks that can be quantitatively measured such as items of documents classified, catalogued, shelved and serviced, number of documents issued during a day and so on. But how well these jobs are done is a qualitative assessment.

Performance appraisal is not only important but also intricate for developing appropriate yardsticks, particularly in the changing context of information work and services. It is indeed necessary that performance strength of the staff has to be constantly and systematically enhanced to reach the highest level of efficiency and user satisfaction.

16.3.6 Staff Training and Development

Staff development is an essential activity to keep performance at the maximum level in the present and in the future. The staff at all levels are required to keep their professional knowledge, technologies, techniques constantly updated. Staff development implies acquisition of new knowledge in areas of relevance in the work situation. This enhances the capacity to perform at a higher standard of efficiency. Education and training at all levels are necessary without distinction of position or activity. In large information organisations, training and development are an in-built activity.

16.3.6.1 Training

In-house training is necessary for the new employees to enable them to be part of the new organization and blending them into the organizational environment. Existing employees very often get in-service training within the organization by senior staff this is to provide them hand-on experience on the assigned job as well as get exposure to other jobs so that they can work if they are transferred from one section to another.

Short duration programmes on new techniques and application of emerging technologies are offered by professional associations and other institutions. These courses are useful to those who wish to acquire new skills or update their knowledge in the fast changing fields.

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Workshops, seminars and conferences organized at national and international levels by professional organizations are another method of staff development. This provides opportunities for staff at all levels to interact or exchange ideas and experience with professional colleagues from different institutions. Delegation to such professional events should be a policy of all libraries. This is to give exposure to their staff to new ideas and professional practices.

Psychological traits which contribute to successful staff performance are leadership qualities, motivating persons or examples of self motivation, communication skills in personal relations, etc.

INTEXT QUESTIONS 16.3

- 1. Discuss the need for performance appraisals.
- 2. Explain the purpose of staff training.
- 3. What are the different forms of staff training?

16.4 SALARY AND BENEFITS

Salary is an amount paid to library staff in return for work for a particular period, usually a month. Salaries for library staff varies depending on a number of factors including the type, size of the library and staff position, qualification and years of experience, etc. In most of the libraries, salaries and other benefits are as given below:

- Salary: Basic salary plus allowances, total salary, total remuneration
- Salary scales –overlapping and non-overlapping
- Salary structure based on: Length of service, Merit, or Combination of both
- Fringe Benefits Employee insurance, retirement benefits, bonus, conveyance allowance, medical benefits, etc.
- Monetary rewards

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16.5 OFFICE MANAGEMENT

Every organization normally has administrative and finance units to take care of the general maintenance of its physical premises. Management of office, requirements of purchase and supply, personnel management, watch and ward, finance and accounts and other office functions are also required. These units function under the supervision and control of administrative and finance officers with administrative and finance/accounts assistants and section officers. They serve under the supervision and control of the Chief Librarian or Head of the organization and report to him/her.



WHAT YOU HAVE LEARNT

- This lesson focuses on human resources as the most valuable of all resources that have the potential to transform all other resources into tangible products and services.
- Staffing is an element of management that builds up the manpower strength of any organization.
- The three levels of staff are: Top, Middle and Lower level.
- The different categories of library staff are: Professional, Semi-professional, Non-professional and Supporting staff.
- Staffing involves a series of steps such as manpower planning, recruitment and selection, employment and induction, roles and responsibilities of persons in different positions, performance appraisal, staff training and development that includes continuing education.
- Induction is necessary to introduce the new staff to their co-workers, superiors and to the other staff of the library. This is to make them feel at home in their new environment.
- Office functions takes care of all administrative and financial functions of the organization



- 1. How is staff strength built in a library?
- 2. Define induction. How does induction of new employees help?
- 3. What would be the result if there is no performance appraisal in a Library?
- 4. Staff training and development should be an in-built facility. Why?



ANSWERS TO INTEXT QUESTIONS

16.1

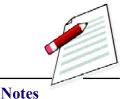
- 1. Staffing is an element of management to build up staff strength of a library to achieve its goals and objectives.
- 2. Manpower planning includes provisions of staff strength, both in quality and quantity and quality in relation to the different functions, recruitment and selection, appointment and induction, performance appraisal, staff training and development.
- 3. The three levels of staff are: Top, Middle and Lower.
- 4. The different categories of library staff are: Professional, Semi-professional, Non-professional and supporting staff.

16.2

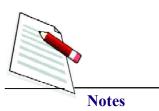
- 1. The steps in recruitment procedure are:
 - Advertisements in newspapers and other communication media, inviting candidates suitable for different positions
 - Recruitment and Selection
 - Appointment and Induction.
- 2. Induction is necessary to introduce the new staff to their co-workers, superiors and to the other staff of the library. This is to make them feel at home in their new environment
- 3. Library services have to be based on more interactive relations with users to determine and understand their information needs, depending on the type of users in libraries.

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16.3

- A library has to always maintain its standard of performance efficiency, irrespective of any change. Performance appraisal helps to maintain the high standard of efficiency by periodical assessment of staff. Those who fall short of the standard efficiency are to be given special attention to raise them to the standard quality.
- 2. Training to update professional knowledge and trends in the field makes the staff get prepared for the changes that constantly take place in professional fields. This ensures the highest performance standards.
- 3. The different types of staff training is: in-service training for new employees, continuing education to keep abreast of new developments and trends, higher professional qualifications for those who need to qualify at higher levels. Besides these, participation in national and international conferences, seminars, workshops and such other meeting give an exposure to the staff to exchange knowledge and experience and keep them updated with current trends.

GLOSSARY

Career development: The process by which individuals establish their current and future career objectives and assess their existing skills, knowledge or experience levels and implement an appropriate course of action to attain their desired career objectives.

Continuing education: Upgrading already acquired knowledge of the staff of an organization

Ethics: A philosophy principle concerned with opinions about appropriate and inappropriate moral conduct or behaviour by an individual or social group.

Fringe benefits: Employment benefits granted to employees in addition to their current base salary or wages (i.e., cash, facilities, health insurance, pension plans, holidays, paid vacations, etc.).

Induction programme: Programmes designed to introduce and acclimate newly hired employees into the organization.

Salary structure: A structure of job grades and pay ranges established within an organization.

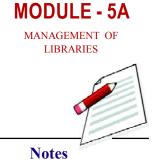
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WEBSITES

http://en.wikipedia.org/wiki/Human_resource_management

http://www.managementstudyguide.com/human-resource-management.htm

http://en.wikipedia.org/wiki/Human_resources



MODULE - 5B INFORMATION RETRIEVAL SYSTEM





16

INFORMATION RETRIEVAL TOOLS: CATALOGUES, INDEXES, SUBJECT HEADING LISTS

16.1 INTRODUCTION

In the previous lesson, you have studied about information retrieval system which is designed to retrieve documents or information required by the users. You have learnt that the IRS should make the right information available to the right user at the right time. Information retrieval tools are basic building blocks for a system that organize recorded information collected by information organizations. This is to establish control of contents for information use as well as for promotion of users' ease of access. The basic information retrieval tools include: bibliographies, catalogues, indexes, finding aids, registers, online databases, etc. In this lesson, you will be introduced to information retrieval tools, viz. catalogues, indexes, subject heading lists and thesauri with examples.



16.2 OBJECTIVES

After studying this lesson, you will be able to:

- explain the use of various information retrieval tools, viz. catalogues, indexes and lists of subject headings;
- define subject cataloguing;
- describe the controlled indexing language;

- illustrate types of controlled indexing languages like lists of subject headings and thesauri; and
- explain different types of indexes, viz. book index, author index, title index, and subject index.

16.3 INFORMATION RETRIEVAL TOOLS

In order to organize knowledge, librarians and information professionals have to create a variety of tools. Traditionally, the tools of information retrieval have been catalogues, bibliographies and printed indexes. Presently, computerized databases and their indexes are also important in the organization of knowledge. These are gradually replacing the traditional tools in a number of applications. At this point, the traditional tools and the computer based tools provide a unified approach to the organization of knowledge which are discussed in the following sections.

16.3.1 Catalogues

Catalogues are the windows to the library collection. A catalogue is the record of the collection in the library. It is also a systematic arrangement of items in an alphabetical or other logical order including brief description. A library catalogue is a list of books and other reading material available in a particular library. The card catalogue has been a familiar sight to library users for generations. But it has been effectively replaced by the online public access catalog (OPAC). The library catalogue of one particular library alone may be available in different physical forms to cover different periods of time. For example, an early catalogue may be in card form, and later superseded for recent documents by an online catalogue.

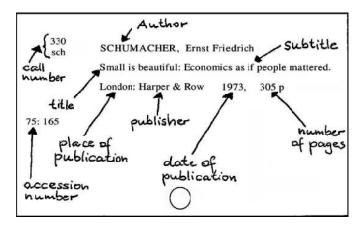
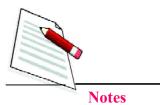


Fig 16.1: Snapshot of Library Catalogue Card





MODULE - 5B INFORMATION RETRIEVAL SYSTEM



A library catalogue comprises of a number of entries, each entry representing or acting as a surrogate for a document as shown in Fig16.1 There may be several entries per document, or merely one. The types of catalogues found in libraries include the author, title, author/title and subject catalogues as given below.

- Author catalogues contain entries with authors' names as the heading. Authors may be persons or corporate bodies and the term author is normally extended to include writers, illustrators, performers, producers, translators, and others with some intellectual or artistic responsibility for a work.
- Title catalogue has entries with title as the heading. Some libraries and
 information centers make title entries for all items being indexed, but in
 other situations title entries are made selectively for only one type of
 material.
- Author/Title catalogues contain both title and author entries. As both titles
 and authors' names are in alphabetical order, it is easy to file together
 authors' names and titles as headings.
- Subject catalogues have an indication of the subject of the documents being indexed as their headings. The entries are arranged in an appropriate systematic order. There are two significantly different types of subject catalogues, (i) Alphabetical subject catalogues have headings which are words or index terms designed to summarize the subject content of the document. For example, car, lawyers. These entries are arranged alphabetically, according to the subject heading, and (ii) Classified subject catalogues have headings on entries which are classification symbols, for example 020 (Library science), 200 (religion), which have been drawn from a classification scheme (Dewey Decimal Classification). In a classification scheme, each subject is allocated a piece of notation, and that notation is used to represent the subject. The headings will be arranged according to the filing sequence of the notation.

The catalogues that have been described above are in single sequence. A catalogue for a complete library collection will normally combine a number of these single sequence catalogues. As you have already studied in Lesson 10, there are two types of catalogue, namely a classified catalogue and a dictionary catalogue.

- Classified catalogue is a catalogue with three or four separate sequences,
 (i) an author/title catalogue or index (or separate author and title catalogue),
 (ii) a classified subject catalogue, and (iii) a subject index to the classified catalogue.
- **Dictionary catalogue** is a catalogue with only one sequence which has author, title and alphabetical subject entries interfiled. As all of the headings are in alphabetical order, it is possible to file together entries regardless of the nature of their heading.

16.3.2 Indexes

An index is essentially a filter or pointer, or indicator, or a systematic guide to the items contained in, or concepts derived from a collection. Another dictionary definition is that an index is an alphabetical list of terms usually at the end of a book along with the page number where the term appears in the book. Subject indexing is a classification process. On the basis of their subject matter, we group together (perhaps physically, as in the classified arrangement on library shelves) similar subject documents and separate them from other documents. Then we label these classes of related documents in order to maintain the established groups, and to refer to them. In other words, we name the classes and the names we give to them are our index terms.

16.3.3 List of Subject Headings

In traditional library practice, when a controlled vocabulary is set up in the form of an alphabetical listing of index terms, the individual terms are known as *subject heading* and the controlled vocabulary as a *list of subject headings*. Subject headings lists are useful to understand the relationship among concepts to a certain degree, besides their application in indexing.

Subject headings lists are highly valuable for indexing. Subject headings are provided in the catalogue entries to provide subject access to information. Cataloguers depend on Lists of Subject Headings from which they can assign subject headings to the catalogued documents. The conceptual relationships are indicated in the list and the choice of terms and preference are given. In recent decades, these lists have also introduced many thesaurus features. The *Library of Congress Subject Headings (LCSH) List* is one of the best tools for indexing and retrieval. The *Sears List of Subject Headings (SLSH)* is a shorter version useful for smaller libraries. *Medical Subject Headings (MESH)* and *Subject Headings in Engineering (SHE)* are some of the other specialized ones highly used. In the Social sciences, the *Public Affairs Information Service (PAIS) Subject Headings List* is extensively used.

INTEXT QUESTIONS 16.1

- 1. Define a library catalogue.
- 2. Which are the different types of catalogues commonly found in libraries?
- 3. Explain an Index.
- 4. What do you understand by the term 'Subject headings lists'?
- 5. Mention any three subject heading lists.

MODULE - 5B INFORMATION RETRIEVAL SYSTEM







16.4 SUBJECT CATALOGUING

Subject cataloguing deals with what a book or other library item is about. The purpose of subject cataloguing is to list under one uniform word or phrase all the materials on a given topic that a library has in its collection. A subject heading is that uniform word or phrase used in the library catalogue to express a topic. The use of authorized words or phrases only, with cross-reference from unauthorized synonyms, is the essence of bibliographic control in subject cataloging.

As mentioned above, subject cataloguing is the process of preparing subject entries for documents and organizing them for subsequent retrieval. It involves assignment of subject headings and references like *see* and *see also*, that helps in retrieval of documents from the catalogue in cases where users request for documents on specific subjects.

16.4.1 Objectives

Subject cataloguing has a lot of advantages with regard to retrieval of information from documents, when the user's approach is only to find information if a subject is known. It enables users seeking information to identify and provide access to all the documents on a subject. It also brings together all the related materials on a subject at one place, thus making things easier for the users. Subject cataloguing also enables access of materials if the users are using various kinds of vocabulary, i.e., synonyms, homonyms, etc. Besides this, user can always retrieve the latest information as all related information on a subject is at one place.

When we index using a classification schedule as controlled vocabulary, we assign class labels to a document to represent its subject matter. For convenience, however, we use class number in place of the natural language terms. The process has thus become known as classification, whereas the assignment of subject headings is generally referred to as *subject indexing* or *subject cataloguing*.

16.5 INDEXING LANGUAGES

Indexing language is the language used to describe a subject or other aspects of information in a library catalogue or an index. Indexing language is defined as- 'a list of terms or notations that might be used as access points in an index.' An indexing language may also be referred to as a retrieval language. As discussed in lesson 15, there are three main types of indexing languages:

- Controlled indexing language Only approved terms can be used by the indexer to describe the document
- Natural language indexing language Any term from the document in question can be used to describe the document.
- Free indexing language Any term (not only from the document) can be used to describe the document.

In this lesson, controlled indexing language is discussed in detail.

16.5.1 Controlled Indexing Language

Control is necessary in respect of terms used as subject identifiers in a catalogue or index, because of the variety of natural languages. Such control may involve barring of certain terms from use as headings or access points in a library catalogue or an index. The terms which are to be used are specified and the synonyms recognized and as far as possible are eliminated. Preferred word forms are noted. The list of terms, thus, prepared constitutes what is called *controlled indexing language*.

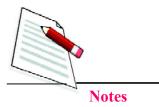
Controlled indexing languages are indexing languages in which both the terms that are used to represent subjects, and the process whereby terms are assigned to a particular document are controlled or executed by a person. Normally there is a list of terms which acts as the authority list in identifying the terms that may be assigned to documents, and indexing involves a person assigning terms from this list to specific documents. There are two types of controlled indexing languages, namely, alphabetical indexing languages and classification schemes. In alphabetical indexing languages, terms are embodied in thesauri and subject headings lists. The subject terms are the alphabetical names of the subjects. Control is exercised over terms that are used, otherwise the terms are ordinary words. In classification schemes each subject is assigned a piece of notation. The usual objective of assigning notation is to place a subject within a context with respect to other subjects. Both types of device can be found applied in catalogues, indexes to books and periodicals, bibliographies, current awareness bulletins, selective dissemination of information, computerized databases and data banks, abstracting and indexing services, encyclopedias, dictionaries and directories. Classification is also prominent in the physical arrangement of documents. There are different examples of controlled Indexing languages, viz. Lists of Subject Headings, Classification schemes, Thesauri, Thesaurofacet and Classaurus.

Lists of subject headings and thesauri are explained below with examples.

MODULE - 5B INFORMATION RETRIEVAL SYSTEM







16.5.1.1 Lists of Subject Headings

The purpose of subject headings is to give the cataloguer a way to describe the content of materials in the library. Many times this can be done with a single word, such as ARCHITECTURE. Sometimes, the concepts that are covered require subject headings that can provide further definition, or a more specific definition of the content. Subject headings can also have subdivisions that help to clarify the meaning or focus of the subject term. Some examples of lists of subject headings are:

(a) Library of Congress List of Subject Headings (LCSH)

The Library of Congress Subject Headings (LCSH) comprises a thesaurus of subject headings, maintained by the United States Library of Congress for use in bibliographic records. LCSHs are applied to every item within the library's collection, and facilitate access to items in the catalogue that pertain to similar subject matter.

LCSH was first published as Subject Headings used in the Dictionary Catalogues of the *Library of Congress (LC)* between 1909 and 1914. Later on supplements were published followed by the second edition in 1919. The List is in its 33rd edition at present (Fig16.2), which was published in 2011.

LCSH system was originally designed as a controlled vocabulary for representing the subject and form of the books and serials in the *Library of Congress* collection. The main purpose of LCSH is to provide subject access points to the bibliographic records contained in the Library of Congress catalogues. LCSH is now used as a tool for subject indexing of library catalogues in general. It has also been used as a tool in a number of online bibliographic databases.

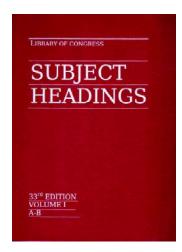


Fig 16.2: Snapshot of Library of Congress Subject Headings

LCSH has become a tool for subject indexing of library catalogues in general. There are four types of term relationships in LCSH.

- i) Equivalence relationships
- ii) Hierarchical relationships
- iii) Associative relationships, and
- iv) General and Specific references.

LCSH provides useful reference guide for the user and also to the library reference staff. LCSH is the only subject headings list accepted as the worldwide standard. LCSH is the most comprehensive list of subject headings in print in the world and provides an alphabetical list of all subject headings, and cross-references.

(b) Sears List of Subject Headings (SLSH)

The Sears List of Subject Headings (SLSH) owes its name to its originator Minnie Earl Sears. The first edition in 1923 was published as List of Subject Headings based on Library of Congress List of Subject Headings (LCSH) designed for small and medium sized libraries. She edited the List till its 3rd edition in 1933.

SLSH is a thesaurus like database delivering a core list of headings, together with patterns and examples to guide the cataloguer in creating further headings as needed. Since the first edition in 1923, the *Sears List* has served the unique needs of small and medium sized libraries, suggesting headings appropriate for use in their catalogues and providing patterns and instructions for adding new headings as they are required. The successive editors of the List have faced the need to accommodate change while maintaining a sound continuity. The new and revised headings in each edition reflect developments in the material catalogued, in the use of the English language, and in cataloguing theory and practice. The aim is always to make library collection as easily available as possible to library users.

SCSH has got a new face since the 15th edition, published in 1994. Since then the editions have been coming quite regularly viz., 16th in 1997, 17th in 2000, 18th in 2004, 19th in 2007 and 16th in 2010 (Fig. 16.3). and the new face is due to the change in format that follows the NISO standards for thesauri. SCSH labels the references BT, NT, RT, SA, Use and UF for broader terms, narrower terms, related terms, see also, use and used for.

a) NT (Narrower Term) refers to more specific headings than the boldface heading

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For Example: Birds

NT Pigeon

b) BT (**Broader**) refers to more general subject headings. These headings would be useful if you need to broaden your topic.

For Example: Applied Psychology

BT-Psychology

c) RT (Related Term). These terms can provide ideas of other terms related to the topic.

For Example: Applied Psychology

RT-Educational Psychology

RT-Social Psychology

d) USE and UF (Used For) refer to preferred and non-preferred subject headings.

For Example: Chennai

UF Madras

For Example: Madras

USE Chennai

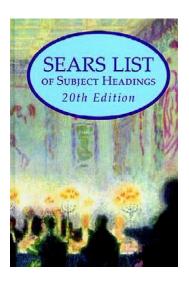


Fig.16.3: Snapshot of Sears List of Subject Headings

16.5.1.2 Thesaurus

The dictionary meaning of the word 'thesaurus' is 'a collection of words put in groups together according to likenesses in their meaning rather than an alphabetical list.' However, in library and information science parlance the word thesaurus means an authoritative list showing terms which may or may not be used in a catalogue or index to describe concepts. Technically, a 'thesaurus' is defined as 'a compilation of words and phrases showing synonymous, hierarchical, and other relationships and dependencies, the function of which is to provide a standard vocabulary for information storage and retrieval systems'. In a thesaurus, each term is usually given together with terms which are related to it in a number of ways.

Information retrieval thesauri are based on three types of relationship among concepts, viz. equivalence, hierarchical and associative relationships.

The thesauri basically serves as a controlled vocabulary used for indexing and searching of information in an information storage and retrieval system. There are several examples of thesauri. The *Engineering Joint Council (EJC) Thesaurus* and the *Thesaurus of Engineering and Scientific Terms (TEST)* are among the thesauri used for scientific and engineering subjects. In the social sciences, the *Educational Resources Information Center (ERIC) Thesaurus* is extensively used. Few others subject thesauri are *INIS Thesaurus, INSPEC Thesaurus* and *AGROVOC Thesaurus*.



INTEXT QUESTIONS 16.2

- 1. What is subject cataloguing.
- 2. List the types of Indexing languages.
- 3. What do you understand by Controlled indexing languages?
- 4. How many types of term relationships are present in 'Library of Congress Subject Headings'?
- 5. Who is the originator of 'Sears List of Subject Headings'?
- 6. Define a 'thesaurus'.

16.6 TYPES OF INDEXES

Indexing is broadly of two kinds, namely, derived and assigned indexing. Both are different so far as the representation of contents of documents is concerned. In derived indexing, index terms are derived directly from the document. No attempt is made to use an indexer's own knowledge of the subject or other guides. On the other hand, in assigned indexing, an indexing language is used for both input and query formulation. In the former, the index terms are often

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derived from the title or the text, whereas in the latter, terms may be assigned to indicate a subject. Types of indexes are explained below.

16.6.1 Book Index

Book indexes are usually found at the back of the book. They list, in alphabetical order, specific referenced materials which is included in the book, giving page numbers or other information to assist readers in locating the material. Many book indexes are predominantly lists of subject terms.

16.6.2 Author Index

The index which has entries under authors' names in alphabetical sequence is called author index. It is the index where the works of a number of authors are listed in one index. An author index provides access to a document via authors' names.

16.6.3 Title Index

In the index which has entries under titles in alphabetical sequence is called title index. It is also an alphabetically arranged list of the titles of the works covered in a serial or non-serial publication. Title and author indexes are sometimes combined.

16.6.4 Subject Index

A subject index has alphabetical terms or words as headings. These terms represent concepts or subjects. Entries are arranged in alphabetical order according to the letters in the heading.



INTEXT QUESTION 16.3

- 1. What is an assigned index?
- 2. Differentiate between an author and a subject index.



WHAT YOU HAVE LEARNT

 Information retrieval tools are basic building blocks for a system that will organize recorded information that is collected by libraries, archives, museums, etc.

- The basic information retrieval tools include: bibliographies, catalogues, indexes, finding aids, registers, online databases, etc.
- Library catalogue is a list of books and other reading materials available in a particular library.
- The types of catalogues commonly found in libraries are: author, title, author/title, and subject catalogues.
- There are two types of catalogues, namely, classified catalogue and dictionary catalogue.
- An index is a filter or pointer, or indicator, or more fully, a systematic guide to the items contained in, or concepts derived from a collection.
- Subject indexing is a classification process.
- Subject headings lists are useful to understand the relationship among concepts to a certain degree, besides their application in indexing. Subject headings are provided in the catalogue entries to provide subject access to information.
- Indexing language is defined as a list of terms or notations that might be used as access points in an index. An indexing language may also be referred to as a retrieval language.
- Indexing languages may be of three distinct types: (i) Controlled indexing language, (ii) Natural indexing language, and (iii) Free indexing language.
- Controlled indexing languages are indexing languages in which both the terms that are used to represent subjects, and the process whereby terms are assigned to a particular document, are controlled by an indexer.
- There are two types of controlled indexing languages: alphabetical indexing languages and classification schemes. Classification is also prominent in the physical arrangement of documents.
- The Library of Congress Subject Headings (LCSH) comprises a thesaurus of subject headings, maintained by the United States Library of Congress for use in bibliographic records.
- The Sears List of Subject Headings is a thesaurus-like database delivering a core list of headings.
- Thesaurus means an authoritative list showing terms which may and sometimes may not be used in a catalogue or index to describe concepts. In a thesaurus, each term is usually given together with terms; which are related to it in a number of ways.

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Notes

• Different types of indexes are book index, author index, title index and subject index.

TERMINAL QUESTIONS

- 1. Mention different tools of information retrieval?
- 2. What is the difference between 'Classified catalogue' and 'Dictionary catalogue'?
- 3. What do you understand by the concepts 'alphabetical indexing languages' and 'classification schemes?
- 4. Explain in brief about LCSH and SLSH.
- 5. Briefly explain different types of index.



ANSWER TO INTEXT QUESTIONS

16.1

- 1. Library catalogue is a list of books and other reading materials available in a particular library.
- 2. There are four types of catalogues commonly found in libraries, such as: author, title, author/title, and subject catalogues.
- 3. Index is an alphabetical list of terms, usually at the end of a book along with the page number where the term appears in the book.
- 4. Subject headings lists are useful to understand the relationship among concepts to a certain degree, besides their application in indexing.
- 5. The Library of Congress Subject Headings (LCSH) List is one of the best tools for indexing and retrieval. The Sears List of Subject Headings (SLSH) is a shorter version useful for smaller libraries. Medical Subject Headings (MESH) and Subject Headings in Engineering (SHE) are some of the other specialized ones highly used.

16.2

 Subject cataloguing deals with what a book or other library material is about. The assignment of subject headings is generally referred to subject indexing or subject cataloguing. Purpose of subject cataloguing is to list under one uniform word or phrase, all the material on a given topic that a library has in its collection

- 2. Indexing languages are of three distinct types: (i) Controlled indexing language, (ii) Natural indexing language, and (iii) Free indexing languages.
- 3. Controlled indexing languages are indexing languages in which both the terms that are used to represent subjects, and the process whereby terms are assigned to a particular document, are controlled or executed by an indexer.
- 4. There are four type of term relationships in LCSH, (i) Equivalence relationships; (ii) Hierarchical relationships; (iii) Associative relationships; and (iv) General and Specific references.
- 5. Minnie Earl Sears
- 6. Thesaurus is a compilation of words and phrases showing synonymous, hierarchical, and other relationships and dependencies, the function of which is to provide a standard vocabulary for information storage and retrieval systems.

16.3

- 1. In an assigned index the index terms are assigned by an indexer by using a guide or based on his own knowledge of the subject.
- 2. An index which has entries under authors' names in alphabetical sequence is called author index. A subject index has alphabetical terms or words as headings. These terms represent concepts or subjects.

GLOSSARY

Assigned indexing: The system of indexing in which terms are assigned

by the indexer on the basis of the conceptual

relations existing between them.

Classaurus : An elementary category-based faceted systematic

scheme of hierarchical classification in the verbal plane having all the necessary and sufficient features of a conventional alphabetical, thesaurus excluding

the enumeration of the Related terms (RT).

Derived indexing: The system of indexing in which terms are derived

from the terms used in the text.

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Information Retrieval Tools: Catalogues, Indexes, Subject Heading Lists

Index : A tool that exhibits the analyzed contents of a

bibliographic entity or group of such entries, arranged in a systematic way, so that retrieval of specific

items of information could be done easily.

Indexing : Indexing is the process whereby indexes and

associated tools for the organization of knowledge are generated. Indexing can be done both manually as well as with the help of a computer. Subject indexing comprises three stages: familiarization with subject, analysis and assigning of terms to represent concepts using an indexing language.

Indexing Language : It is a set of items (vocabulary) and devices for

handling the relationships between them in a system for providing index descriptions. Indexing language

is also referred to as a retrieval language.

Subject Headings List: A list of subject headings or terms, including

references, to be used as a standard cataloguing or

indexing.

Thesaurofacet: Thesaurus which has a classified and alphabetical

part.

Thesaurus : It is a compilation of words and phrases showing

synonyms, hierarchical and other relationships and dependencies, the function of which is to provide a standard vocabulary of information storage and

retrieval systems.

Vocabulary Control: A controlled set of terms used to represent the

subjects of documents in indexing, and to search for

these documents in a particular system.

WEBSITES

http://en.wikipedia.org/wiki/Controlled_vocabulary

http://www.slideshare.net/ImeAmorMortel/indexing-10954481

http://www.loc.gov/aba/cataloging/subject/weeklylists/

http://www.ebscohost.com/public/sears-list-of-subject-headings