
UNIT 1 BASICS OF CLASSIFICATION

Structure

- 1.0 Learning Outcomes
- 1.1 Introduction
- 1.2 Classification Basics
 - 1.2.1 Meaning and Definition of Classification
 - 1.2.2 Hierarchy in Classification
- 1.3 Knowledge Classification
- 1.4 Library Classification
 - 1.4.1 Purpose of Library Classification
 - 1.4.2 Approaches to Library Classification
 - 1.4.3 Library Classification Schemes
- 1.5 Steps to Assigning Classification Numbers
 - 1.5.1 Some Principles of Classification
 - 1.5.2 Some Useful Videos to Classification
- 1.6 Uses and Limitations of Library Classification
 - 1.6.1 Uses of Classification in Electronic Environment
 - 1.6.2 Limitations of Classification
- 1.7 Summary
- 1.8 Answers to Self Check Exercises
- 1.9 Keywords
- 1.10 References and Further Reading

1.0 LEARNING OUTCOMES

After reading this Unit, you will be able to:

- define classification and know its various meanings;
- understand the basic concepts of classification;
- explain the need of classification;
- describe how classification is done in libraries;
- discuss the various library classification systems in brief; and
- discuss the limitations of classification.

1.1 INTRODUCTION

Classification is something that we all do intuitively in our daily life and see around us lots of examples that illustrate classification. We classify animals, plants, birds, languages and many other entities into groups based on what is common in them. For example, in a grocery store frozen foods and canned foods are found in separate areas; in a mall electrical goods and cooking goods are kept in separate areas. We group like things

make yet another class, or Keralite Roman Catholics may make yet another class. A family is a class. There seems to be no end to making classes and subclasses of people and various other entities.

Ordering (Arranging Items)

After grouping of items comes the process of ordering. Suppose you have six members in your family. If you arrange their names alphabetically that will be ordering, that means you have put them in a particular order. Ordering is very vital, we arrange all books, periodicals, etc. in a library in a particular order.

Classification discovers relation between entities. All the members of a group are related to one another by some common characteristic. When we admit a member into a group it is because he has something in common with the group. For example, a book on microchemistry is admitted into the broader group 'chemistry'. Here, the common factor is chemistry.

Classification removes chaos and brings in order. Imagine what will happen if students of a school gather in a field for physical exercise without any order. There will be a total chaos. Finding a particular student will be extremely difficult. The moment they are asked to stand in lines according to their classes, immediately, there will be order, and it will be easy to locate any student.

1.2.1 Meaning and Definition of Classification

According to *Oxford English Dictionary* classification is, "the action of classifying or arranging in classes, according to common characteristics or affinities; assignment to the proper class".

The Longman Dictionary of the English Language defines classification as, "systematic arrangement in groups or categories according to established criteria".

The New International Webster's Comprehensive Dictionary of the English Language describes classification as, "the act, process or result of classifying".

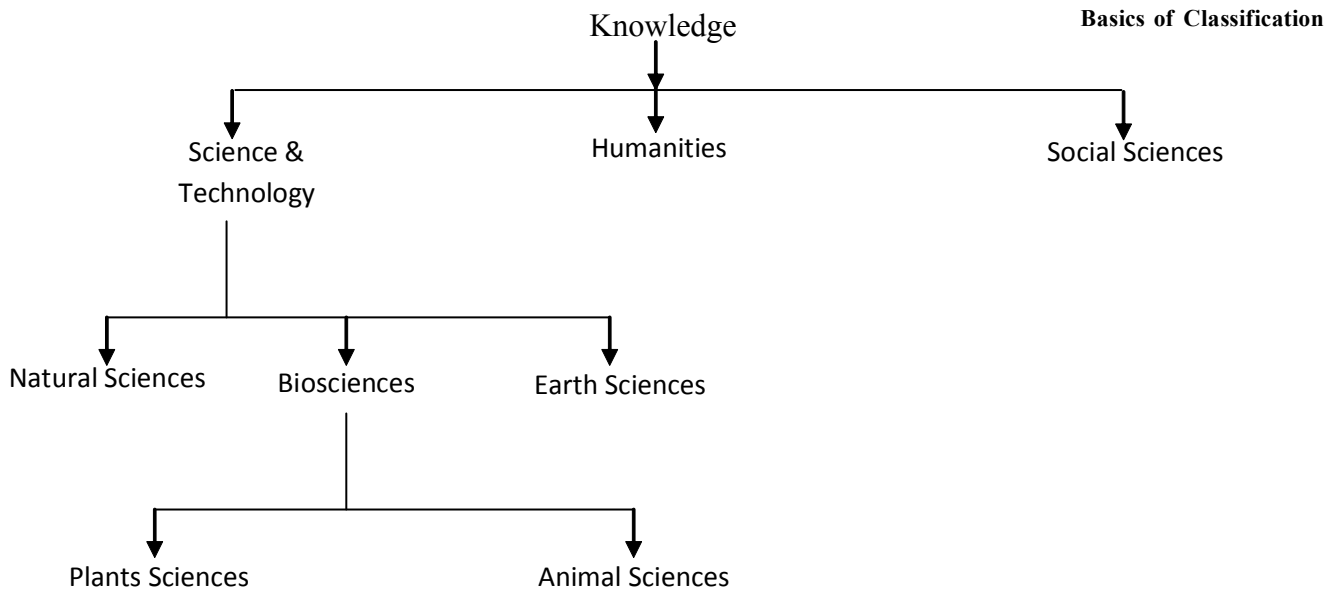
1.2.2 Hierarchy in Classification

Typically in a classification items are arranged in a hierarchical tree structure (like classification systems used in biology). A group is divided or a member is included into a group on the basis of some common characteristic. A characteristic is an attribute, quality or property of an entity which relates it with or separates it from a group. For example, a group of people may be divided into males and females. Here 'gender' is the common characteristic of division. We may divide all students of a university into undergraduate, postgraduate and M Phil/PhD students. Here in such a grouping the level of education is the common characteristic of division. Books in a library are divided and then arranged on the basis of their subject content. Thus a characteristic of division is the common subject. Successive application of useful and relevant characteristics produces deeper and finer tree like classification.

Genus-Species Relation

Logically, a class or a group of items sharing a common characteristic is technically called a genus. The common characteristic is the differentiating factor to produce species. We may state that 'genus' + 'differentiating factor' = 'species'

For example, tables + material = glass tables, wooden tables, plastic tables, metallic tables, etc.



Take another example

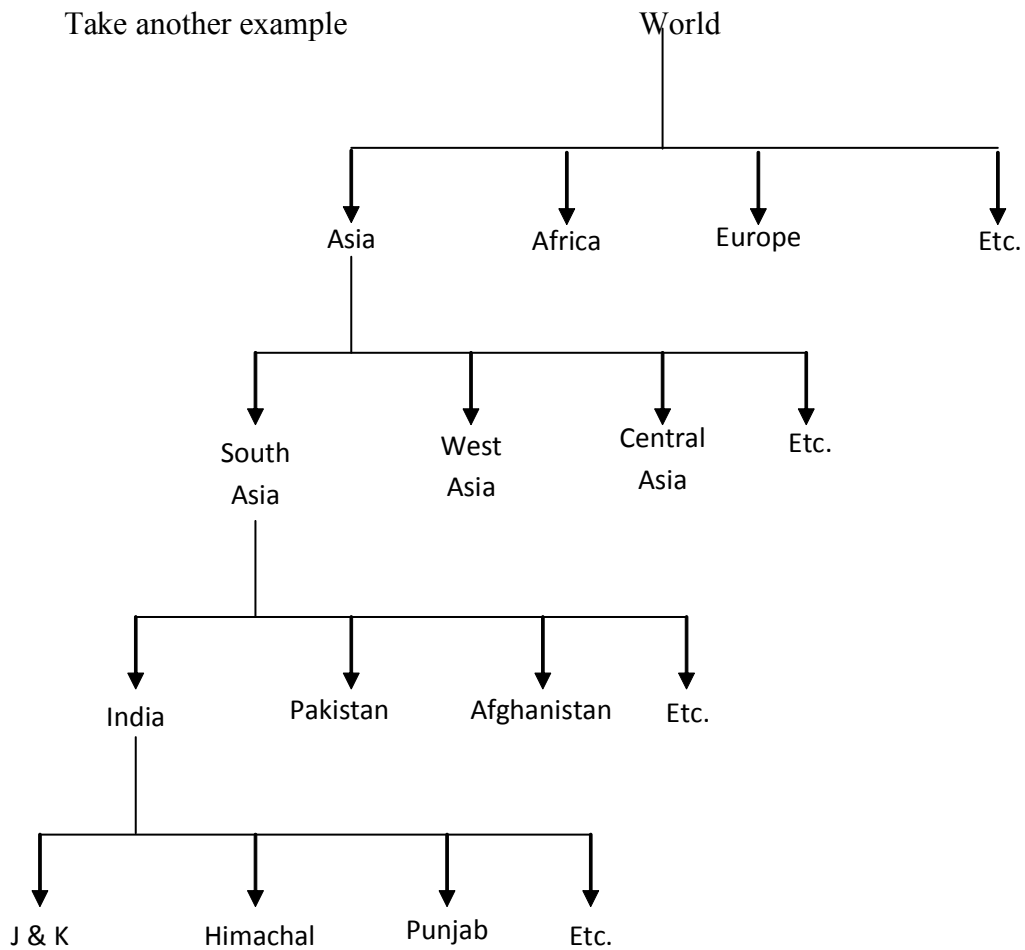


Fig1.2

We proceed from broader to narrower classes by applying some common characteristics to get tree like classification. Quality and mode of application of these chosen characteristics are very important.

- To facilitate subject access to enable users to browse, identify and locate what works or documents a library has on a certain subject;
- To quickly retrieve documents from among thousands of items in the collection and to replace documents to their original physical positions after use;
- Library being a service oriented organisation, classification is a tool that is employed to increase the utility of library material;
- Proper physical arrangement of books in shelves saves the time of users as well as of the staff.
- Arrangement of books by call number provides an exhaustive view of the collection of a library on a particular subject.

1.4.2 Approaches to Library Classification

Melvil Dewey (1851-1931) designed Decimal Classification which divided knowledge by academic disciplines of study and used decimal notation to denote subjects. It provides almost infinite capacity for expansion and insertion of new subjects at proper places. Ever since then libraries classify books predominantly on the basis of subject content in the book. Thus library classification refers to knowledge classification as applied to books in libraries. In other words library classification is applied knowledge classification. Therefore, documents in libraries are arranged by subject though different types of collections may be arranged in different ways. For example, government documents, patents or standards may be arranged by their own official codes. Current periodicals are usually arranged alphabetically by titles. Maps, CDs, pamphlets, photographs indeed require different and separate arrangements.

1.4.3 Library Classification Schemes

The standard systems (or schemes) of library classification in use have been developed using following approaches to knowledge classification

- Enumerative: assigning numbers to subject headings in alphabetical order; Enumerative systems are readymade, long and systematic lists of subjects along with their class numbers. These are also known as ‘mark and park’ systems.
- Hierarchical: dividing the subject hierarchically from most general to most specific
- Faceted analytico synthetic: dividing the subject into mutually exclusive facets and providing mechanism to assemble them according to the subject of the document. Nothing is readymade in faceted system. One has to construct a class number according to the subject and characteristics of the document.

There are many living standards library classification systems used all over the world.

- Dewey Decimal Classification (DDC, 1876+)
- Universal Decimal classification (UDC, 1895+)
- Library of Congress Classification (LCC, 1902+)
- Colon Classification (CC, 1933+)
- Bliss’ Bibliographic Classification (1st ed, 1940 and 1953)

The most common systems of classification used world over are ‘Dewey Decimal Classification’, ‘Universal Decimal Classification’ and ‘Library of Congress

Step 2: Ascertain the Discipline of the Book

After determining the subject, select the proper discipline, or field of study, of the book. You may take the help from the Relative Index or consult an expert in the subject. The guiding principle of the DDC is to class a work in the discipline for which it is intended, rather than the discipline from which the work derives. For example, a work on Internet for libraries should be classed in library science, not computer science, along with other works on Internet based library services.

Step 3: Assign Classification Number

For assigning a number to the subject identified in Step 1 you need a tool called Classification Scheme (also called Classification System). A basic familiarity with the classification system in use in a library is vital to classify books, documents and assign them a class number. In Section 1.4.3 of this Unit, you learnt that a number of schemes are available for number building. It is the duty and responsibility of the library administration to decide which one classification scheme to use for document classification in a library. While taking decision on this matter, it is important to take into consideration the following points:

- What is the size and subject of the collection
- What is the nature of the collection
- Who are users of the collection
- Revision policy of the scheme to be selected

Number building according to ‘Dewey Decimal Classification’ is discussed in detail in the Unit 2 of this course. DDC is an enumerative scheme of classification. In the enumerative scheme of classification the starting point is to consult the index and before proceeding to the pinpointed location in the schedules. But remember not to rely solely on index alone. In DDC you need not to worry much about simple subjects as they are taken directly from the schedule. DDC provides summaries of the schedules which will help you to understand and familiarise with the broad structure of the scheme. The DDC is also hierarchical number system that organises the whole universe of knowledge into main classes. In general, main class is the highest level of classification in the universe of knowledge. It is the broadest possible subject area of knowledge division. The main classes in DDC are shown in the table below. What body of knowledge will constitute a main class will however vary from one classification scheme to another. For example, in UDC the main classes of universe of knowledge are Physics, Chemistry, Agriculture, Medicine, History, Literature, Biology, Law, Education, Engineering, and many others.

Dewey Decimal Classification Scheme

000 – Generalities	500 - Natural sciences and mathematics
100 - Philosophy, parapsychology and occultism, psychology	600 - Technology (applied sciences)
200 – Religion	700 - Arts (fine and decorative arts)
300 - Social sciences	800 - Literature (belles-lettres) and rhetoric
400 -	900 - Geography, history, and auxiliary disciplines

Dewey Decimal Classification Part-3: Literature Class <http://www.youtube.com/watch?v=j24LWrzYQ4&feature=relmfu> (Accessed on 05/04/13)

Dewey Decimal Classification Part-4: Language Class <http://www.youtube.com/watch?v=69whWyCHLnU&feature=fvwrel> (Accessed on 05/04/13)

Dewey Decimal Classification Part-5: Use of Table 4 and 6 http://www.youtube.com/watch?v=_38oVkyHmuc&feature=relmfu (Accessed on 05/04/13)

Dewey Decimal Classification Part-6: Use of Table 1 <http://www.youtube.com/watch?v=6rmQA5JmnEQ&feature=relmfu> (Accessed on 05/04/13)

Dewey Decimal Classification Part-7: Use of Table 5 and 7 <http://www.youtube.com/watch?v=qIL8EGxB55Q&feature=relmfu> (Accessed on 05/04/13)

Dewey Decimal Classification Part-8: Synthesis of Notation <http://www.youtube.com/watch?v=pVMjuTAX7H0&feature=plcp> (Accessed on 05/04/13)

1.6 USES AND LIMITATIONS OF LIBRARY CLASSIFICATION

Classification is a vital tool for access to books and collections in particular for self learning in an open access system. It supports all other library services too. In a library, classification acts like a skeleton in a human body on which all of the body organs and functions rest. It maps library collection by subject, serves library management functions and helps in knowledge creation. Without classified resources, a library is nothing but an unorganised dump of books. Libraries need classification for realising full value of library resources. Some of the prominent uses of classifications are enumerated as follows:

- Classification is a tool for systematic arrangement of books in a collection. It brings books on the same subject together, arranges them in a systematic order, from general to specific topics, and makes it simpler for patrons to browse collections topic wise at one place.
- Browsing is to look at library collections without any specific purpose – a sort of window shopping books and other reading material. Browsing is a scholarly habit of value and importance which at times leads to serendipity - *accidental discovery of long-needed and valuable information*. Classification facilitates browsing books by subject.
- Classification is a tool to trace books in library stacks and replace them back after use. It is also used for preparing shelf lists.
- It has been claimed that a library classification serves three functions, namely,
 - cognitive: *to represent the structure of knowledge into subjects and their classes and design thesauri and ontologies. Many library classifications, e.g., Ranganathan's CC, Bliss' BC and BSO have emphasised this function;*
 - information retrieval: *classification is the basis of all information retrieval systems and methods both in manual and electronic environments;* and
 - shelf arrangement.
- Many bibliographies, catalogues, etc. are organised in classified order for better use. UDC was created to arrange entries in a universal bibliography.

Any single classification system cannot satisfy all users always as their individual needs are wide and varying. Classification systems are not developed based on surveys covering needs of all library users. Every entity has multiple dimensions. For instance, a man is a father and a son at the same time, an uncle and brother to someone; he is both a Hindu and a businessman. Where to classify him is always an issue. Nevertheless, neither is there any escape from such issues nor is there any substitute to it in libraries. In libraries, we have to work with imperfect tools.

Points to Remember

- * The first act of classification is grouping as it brings related concepts together.
- * Classification makes searching more convenient to the users.
- * Classification maps a library collection.
- * It brings all material related to a subject at one place.
- * Makes library organised and helps in easy information retrieval.
- * Satisfies the subject approach of the users.
- * Enumerative scheme tries to list all the possible classes.
- * Analytico-synthetic-scheme allows the classifier to build numbers for compound classes.
- * It helps in the effective working of OPAC's.

Self Check Exercise

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

ii) Check your answer with the answers given at the end of this Unit.

2) State the uses of classification in a library.

.....

.....

.....

.....

3) Name two major library classification systems.

.....

.....

.....

.....

4) Write True or False

- a. No man-made classification is absolute.
- b. In earlier time books are arranged according to their colour and size.
- c. A special subject classification covers the whole universe of knowledge.
- d. Classification can also be used to design thesaurus and ontologies.
- e. OPAC does not work well with class numbers.

- 5) The main approaches through which a user can search her/his document is by subject, author and title.

1.9 KEYWORDS

- Browsing** : A habit of scholars to scan the book stacks of a library without any specific purpose. It results in serendipitous findings.
- Characteristic** : It is basis or criterion of division or grouping. If a group is divided into Hindus, Muslims, Christians, Sikhs then religion is the characteristic. Quality of the characteristic will determine the quality and aptness of classification.
- Class** : A set of entities having at least one characteristic in common. A class can be small or big, even very big.
- Classifier** : A person who classifies books in a library by operating a classification system.
- Classificationist** : A person who designs a classification system.
- Classification** : It is a process of grouping entities on the basis of likeness or some underlying relation. Ultimately, classification is organisation and co-relation. It is grouping, selecting, sorting, ordering, tabulating, ranking, mapping, preparing classification schedules and operating classification systems.
- Entity** : A thing that has definite, individual existence outside or within the mind; anything real in itself.
- Enumerative Classification** : It is a systematic list of subjects of the past and present along with their class numbers.
- Faceted Classification** : It divides knowledge into concepts and categories to be assembled according to rule as per the requirement of the subjects.
- Genus and Species** : Genus is any original universe to be divided into species on the basis of some characteristics. These are relative terms. A father is a genus for the children; when children become father/mother they will be genus for their own children.
- Knowledge Classification** : The process of outlining, structuring and mapping the entire universe of knowledge or some part of it. It helps to study the nature and growth of knowledge. It is also the basis of modern library classification.