

STUDY GUIDE

MASTER OF LIBRARY AND INFORMATION SCIENCES

CLASSIFICATION: THEORY AND PRACTICE

CODE No. 5503



**DEPARTMENT OF LIBRARY & INFORMATION SCIENCES
ALLAMA IQBAL OPEN UNIVERSITY
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COURSE ORGANIZATION

Structure of the course

The course has been structured to make it as easy as possible for you to complete the required course work. This course consists of nine units. Each unit consists of study material of one week if you study 12-16 hours in a week. This will include studying the prescribed reading material and carrying out the various self-learning assessments.

We have organized this course to enable you to acquire the skill of self-learning. You will find a course introduction at the end of this part, which will provide you an overall view of the course. This study guide has been written to enhance the foundation of sociological ideas and issues, which are presented in the textbook. A section *course introduction* consists of a brief review of the unit in paragraph form. An effort was made to simplify those concepts, which are covered in the compulsory readings, by giving examples of our own society. Specific learning *objectives* are given which identify the basic knowledge; explanation, comparison and understanding, a student should have after studying the unit. Hence, the study guide is intended to be a concise preview and learning tool to accompany the compulsory reading. So the contents are introduced briefly in the study guide.

For each unit, prescribed reading material has been classified as compulsory and suggested reading. Studying all this material is compulsory for successful completion of the course. This study guide is based on prescribed reading. After listing required reading, we have given you a few self- assessment questions and activities. These questions are meant to facilitate you in understanding and self-assessment that how much you have learned.

For this course, *fortnightly tutorials* are arranged in university's study centres. These tutorials are not formal lectures given in any formal university; rather these are meant for group and individual discussion with the course tutor to facilitate you. So before going to attend a tutorial, prepare yourself to discuss course material with your tutor.

How to use reading material

As this is a course through distance education so we have organized the required course work in the following manner to help you in evolving a self-learning process in absence of formal classroom teaching.

- a. Course introduction and objectives
- b. Unit introduction and objectives
- c. The major theme of the unit is divided into sub-themes. They are listed in the beginning of every unit. A brief and simplified introduction of major topic is given in the study guide so that you can get acquainted with the material.
- d. Required reading for each unit is listed as compulsory and suggested reading.
- e. At the end of every unit we have given you few self-assessment questions for each topic or theme. These questions are not only meant to facilitate you in understanding the required reading but also to provide you an opportunity to assess yourself how far you have learned.

Although you choose your own way of studying the required reading material, you are advised to follow the steps, which are given here.

Study chart

- | | |
|--------|---|
| Step 1 | For clear identification of your reading material, thoroughly read description of the course. |
| Step 2 | Read carefully the way the reading material is to be used. |
| Step 3 | Complete the first quick reading of your required study materials. |
| Step 4 | Carefully make the second reading and note down some of the points you were not able to fully understand. |

- Step 5 Carry out the self-assessment question with the help of your study material.
- Step 6 Revise your notes. It is quite possible that many of those points which you did not understand previously become clearer to you during the process of carrying out self assessment questions.
- Step 7 Prepare yourself for the tutorial meeting i.e. note down the points for discussion with other members of your group and with your course tutor.
- Step 8 Make a third and final reading of your study material. At this stage, you are also advised to keep in view the homework assignments. These assignments are compulsory for the successful completion of the course.

How to attend a tutorial

Before attending the tutorial you are required to prepare yourself in the following manner to get maximum benefit. The first tutorial is an 'introductory tutorial' for which you are required to do following work:

- Step 1 Go through first part of the study guide, which includes:
- i. organization of the course
 - ii. structure of the programme
 - iii. how to use the reading material, and
 - iv. assessment
- Step 2 Read carefully course introduction 2-3 times to have a better understanding of the course. It will give you an overview of the whole course. Make notes of those points which you could not fully understand or wish to discuss with your course tutor.

The way we have arranged these tutorials will give you an opportunity to discuss two units in one tutorial. Please see schedule of the tutorial meetings.

Step 3 Read summary of the main themes of the concerned units around which the units are constructed.

Step 4 Study required reading and make notes of those points you are not able to fully understand and wish to discuss with your course tutor.

Methods of assessment

For each course the registered student will be assessed as following:

Assignments

Assignments are written exercises that you are required to complete while being at home or place of work after having studied the required material prescribed in the study guide. They are designed in a way to motivate you in reading the required readings and enabling you to relate your reading with the objectives.

After completion, you will send the assignments to your tutor within a time schedule for assessment and necessary guidance. The tutor is supposed to return the same after marking and providing necessary academic guidance and supervision.

The successful completion of assignments will make you eligible to take final examination to be held at the end of the semester. To qualify each assignment, you have to obtain a minimum 40 % marks.

Workshops

Workshops are compulsory component of the post-graduate programmes. The university near the end of every semester will organize the workshops. Detail of the workshops will be sent to you with the course materials.

Final assessment

Final examination (a three hour written examination) will take place at the end of the semester.

These two components (assignments and final examination) contribute 30:70 to get students final course grade.

The conditions to qualify each component are given below:

- i. A minimum of 40 % in assignments
 - ii. A minimum of 33 % of the final written examination
 - iii. An aggregate of 40% of the both components i.e. assignments and final examination
 - iv. To take final examination the student has to pass assignment component
 - v. The grade will be determined as follow
- | | |
|---------------|----|
| 40% - 54% | C |
| 55% - 69 % | B |
| 70% - 79% | A |
| 80% and above | A+ |

COURSE INTRODUCTION

The present course entitled "Classification: Theory and Practice" comprises nine units and is designed for the first year students of Master of Library and Information Sciences. Each unit carries an introduction along with precise contents within the unit. The students are supposed to study the course thoroughly to prepare themselves for the solution of prescribed assignments, assessment questions, and final examination. The introduction to the course facilitates the students to apprehend the overview of the whole course.

This course aims to describe the process of arrangement of library collection. The process of classification guides us about the grouping of library material on the basis of 'putting together of like entities and separating unlike entities'. Classification is the base of librarianship thus guides about the systematic arrangement of library collection.

The course starts with the concepts of classification, its origin and different meanings of classification. This unit covers general overview of classification. The history of classification indicates that hundreds of classification systems were being devised with the passage of time. Obviously, not only western traditions existed in developing the classification systems but Muslim philosophers also developed philosophical and bibliographical classification systems. The history covers the events and attempts so far made in the past. Therefore, history of classification attempts to explore such developments, which were made right from its inception to present, specially with reference to library classification during 19th and 20th centuries along with western and Islamic traditions.

It is evident that the systematic arrangement of library collection remained an issue regarding adoption of classification system best suited for library arrangement. With the growing pace of literature, a number of classification schemes had been devised, however, few of them are still being utilised by the individual libraries due to their contemporary revision while the remaining are outdated. The comparison of major classification schemes covers a number of similarities and dissimilarities, which help to understand the strengths and weaknesses of individual schemes. The comparative study also explores and identifies the significant features of major classification schemes.

The history of classification shows that we have not independently devised our own system of classification except few expansions of Dewey Decimal Classification (DDC) classes. However, DDC scheme is suitably being used locally by a number of libraries. The use of Library of Congress Classification (LC), and Universal Decimal Classification (UDC), is rare in Pakistan, therefore these are not being discussed in detail.

The adaptation of a classification system is a special consideration. The scheme of Melville Dewey is very popular. Study and practice of its latest editions provide guiding principles in number building process. DDC contains some intrinsic features, which facilitate to understand its theoretical and practical bases. As this course covers practical application of DDC, it has been discussed in detail.

Use of classification system facilitates a reader easy access to the literature. Other significant sources of access are indexes; subject headings, lists of controlled vocabulary terms and references. The purpose of subject headings is to locate a book in a library catalogue on a particular subject other than under the entries of author or title. Subject headings are therefore, compiled to retrieve a document by means of its subject when there is uncertainty with respect to author or title of a book.

This course would let the students gain expertise on theoretical and practical aspects of Sears List of Subject Headings, Library of Congress Subject Headings and subject headings on oriental languages produced locally.

Course Objectives

After studying the course thoroughly and carefully you will have an insight to understand the basics and many intrinsic features of classification. This course will enable the students to:

1. define and explain classification
2. discuss the history of classification through the ages in brief
3. compare and contrast major classification schemes with respect to the intrinsic features of individual schemes of classification
4. describe locally developed classification schemes
5. apprehend briefly the theoretical and practical aspects of DDC specially 19th and 20th editions
6. explain and assign subject headings.

Required Readings

Chan, Lois Mai. *Cataloguing and Classification*. 2nd ed. New York: McGraw Hill, 1994. pp. 255-397.

Chan, Lois Mai. *Library of Congress Subject Headings: Principles and Application*. Littleton: Libraries Unlimited, 1986. pp. 3-45.

Dewey Decimal Classification and Relative Index. 20th ed. Albany: Forest Press, 1989. 4 vols.

Encyclopedia of Library & Information Science edited by Allen Kent & Harold Lancour. New York: Marcel Dekker, 1972. pp. 128-141.

Kumar, Krishan. *Theory of Classification*. New Delhi: Vikas, 1988.

Library of Congress Subject Headings, 20th ed. Washington DC: Library of Congress, 1997. 4 vols.

Mahmud-ul-Hassan and Zamurad Mahmud (Mrs.). Historical and Geographical special expansions for Pakistan. Rawalpindi: Federal Book Corporation, 1989.

Maltby, Arthur. Sayers' Manual of Classification for Librarians. 5th ed. London: Andre's Deutch, 1975. pp.17-29.

Philips, H. Howard. A primer of book classification. 5th ed. London: AAL, 1961. pp. 9-34

Sabzwari, Ghani-ul-Akram. Darja Bundi (Urdu) Karachi: Library Promotion Bureau, 1980. 2 vols.

Sears List of Subject Headings. 14th ed. New York: H. W. Wilson, 1991. pp.1-32.

Shafi, Muhammad. Expansion of Dewey Decimal Classification relating to Oriental Topics. Karachi: Dept. of Library Science, University of Karachi, 1962. Rev. ed. in Urdu, Shafi Dewey Eshariayi Tosiee Taqsim Baraye Islam compiled by Anis Khurshid Karachi: Royal Book, 1977.

Ziauddin Sardar. Islam: Outline of a classification scheme. London: Clive Bingley, 1979. pp. 11-17.

زمرہ محمود۔ معیاری موضوعی سرخیاں۔ اسلام آباد 1993۔

UNIT-1

**INTRODUCTION TO
CLASSIFICATION**

1.1 Introduction

Phenomenon of "Classification" may be applied to our daily life. Each of us is involved in the process of classification in our day activities. "Without classification there could be none of the human thought, action and organization that we know". For instance, we can distinguish or divide the people by their physical characteristics such as height, weight or colour and so on. Similarly different items of food are classified according to their need of protection from air, heat and dust, or preserved in refrigerator in different compartments according to the degree of freezing required.

What does classification mean? In order to trace the origin of this term, we go back to the very early period of Roman Empire, where in that strata of society existed virtually two classes: one that of nobles and the other of common men. The class of nobles constituted either on real or supposed qualities of a person's blood legacy or quantum of wealth that they possessed, while all other who did not qualify in the upper strata fell in a class of ordinary people characterised to be a lower class. In this manner, a complete society was bifurcated and classified into two distinguished categories.

The term "Classification" has originated from the Latin word "Classis" which was used to refer to group of persons possessing certain qualities in common as well as belonging to the same class. "Ordinarily, classification is a process of grouping. It involves putting together like entities and separating unlike entities. The characteristics of entities are used as basis for determining the likeness or unlikeness between them".

'Classification' is defined as "a mental grouping of facets or phenomena according to their resemblances and differences, so as best to serve some purposes". In other words, "classification is a separating as well as a grouping process; it collects like things and separates unlike things". Whereas library classification is, "the systematic arrangement by subject of books and other material on shelves or of catalogue and index entries in the manner which is most useful to those who read or who seek a definite piece of information".

The purpose of library classification is to organise the recorded information and make it ready for its maximum use. Library classification indicates the ability to pinpoint specific items of information and demonstrates the complete collection in a library.

The arrangement of books is shown by notation in a classification system because a logical arrangement of subjects requires a system of symbols, which represent the subjects. The system of symbols is called notation. Actually, these symbols are the names of subjects into an artificial language. The notation usually appears on spines of books and other reading material in order to facilitate shelving and to ensure that each book is in its correct place.

A number of principles are governed/ followed while classifying the books in a library on the basis of classification scheme used. But one should know that "characteristic is the focal point of the process of division and classification implies the discovery and identification of successive difference. Characteristic determines the likeness and unlikeness of things". Tree of Porphyry and five predicable are the best examples of classification or division which illustrate the process of natural as well as artificial classification.

1.2 Objectives

This unit will enable you to:

1. explain meaning and definition of classification
2. describe the purpose of classification in libraries; and
3. explain notation, principles and process of division.

1.3 Compulsory Readings

1. Chan, Lois Mai. Cataloging and Classification. 2nd ed. New York: McGraw Hill, 1994. PP 259-267.
2. Maltby, Arthur. Sayers' Manual of Classification for Librarians. 5th ed. London: Andre Deutsche, 1975. pp. 15-29
3. Phillips, W. Howard. A Primer of Book Classification. 5th ed. London: AAL, 1961. pp 9-20.

1.4 Suggested Readings

1. Buchanan, Brian. Theory of Library Classification. Paris: Clive Bingley, 1979.
2. Ranganathan, S. R. Elements of Library Classification. 2nd ed. Bangalore: Sarada Ranganathan Endowment for library Science, 1989.
3. Sengupta, B & A. K. Ohdedar. Library Classification. Calcutta: The World Press, 1979.

1.5 Self-Assessment Questions

- Q.1 What is the basis of placing the things in different classes?
- Q.2 Which class is called "Waste-paper-basket" class?
- Q.3 What types of books are accommodated in generalia class?
- Q.4 In the process of classification, how many characteristics are adopted at one stage?
- Q.5 Name the Five Predicable and quote the reference from which you have taken the answer?
- Q.6 Describe the types of notation. Which type of notation does use one type of symbols?
- Q.7 Enumerate the steps, which help to identify the subject of a book.
- Q.8 Natural classification is based on artificial characteristic while artificial classification is based on natural characteristic.
 - i) True
 - ii) False

1.6 Activities

1. Visit a library and observe how library material is arranged on the shelves.
2. Go to a library and examine the spine labels if they are identical.
3. Consult a library catalogue to get acquainted with classification numbers.
4. Visit a library of your town to see if it is classified through a system of classification or not.

1.7 Answers to SAQs

1. (Likeness)
2. (Generalia Class) (Phillips p35)
3. (Generalia class accommodates such books as encyclopedia, dictionaries, and polytopical books, which cover knowledge in general, or such a portion of it that it is impossible to place them under any one other main head in the schedules). (Phillips p.35)
4. {Single Characteristic} (Sengupta's book chapter-2)
5. Located the information from any book on classification.
6. Pure and Mixed notation but {pure notation consists of one type of symbols. } Phillips pp.35-57.
7. Study of title, table of contents, chapter headings, preface, introduction, bibliography, CIP, book reviews, reference tools etc. {Dewey Decimal Classification, Vol. 1}
8. False.

2.1 Introduction

The history of classification dates back to ancient times. Basically "the history of classification, necessarily be a history of all attempts to organise human thoughts. Since man began his long endeavors to distinguish and understand the parts of his universe, he has consciously or unconsciously formed some system in which those parts were related to one another".

Time to time philosophers have been involved in the classification of ideas and they tried to group the ideas according to their degree of mutual relationship. However, the history of book classification is traced back to the days of Assyrian and Babylonian libraries. "The clay tablets in the Assyrian library of Assur-banipal were divided at least into two main classes- those dealing with knowledge of Earth-and those dealing with Heaven-and that these were sub-divided".

The history of classification shows that a number of efforts were made to develop the classification schemes by various philosophers and librarians on their own. Before the era of Christ, Plato, Aristotle, Callimachus and many others developed different schemes of classification. However, Aristotle was the first person who taught the kings of Egypt about the arrangement of libraries. Aristotle himself worked out for the systematic arrangement of books.

Before 19th and 20th centuries, a number of efforts were made by Edward, Konard Van Gesner, Ismail Bouliu, Gabriel Naude, Jacques Charles Brunet, Dr. Armin Graesel, Porphy, Francis Bacon, Thomas Hobbs and Immanuel Kant. Many other schemes of classification were also produced. However, Richardson has enumerated 161 schemes of classification in his book.

With the growing collection of libraries, a number of developments were made during 19th and 20th centuries. During this period a number of schemes were devised by Hegel, August Comete, Herbert Spencer, Andre Marle Ampere, R. Merlin and W. T. Harris.

Some other landmark schemes of 19th and 20th centuries, developed by eminent experts, are:

Melvil Dewey devised and published his Dewey Decimal Classification Scheme in 1876 in which the entire knowledge of universe is divided into ten main classes.

Henry Evelyn Bliss introduced his Bibliographic Classification in 1894.

Paul Otlet and Henry Lafontaine developed Universal Decimal Classification with the sponsorship of IIB in 1895, which is based on Dewey Decimal Classification.

The idea of Library of Congress Classification was developed in 1901 but it took forty years to complete. Initially, the scheme was specifically made for the U.S. Library of Congress.

James Duff Brown devised Subject Classification in 1906 whereas Dr. Ranganathan Developed Colon classification in 1933.

Charles Ammi Cutter conceived the idea of Expansive Classification in 1908 and published the scheme in 1935, which was based on seven expansions.

All the individual schemes of classification serve certain purposes of knowledge and book classification and provide further insight into the development. The history of classification reveals, "early bibliographical schemes are naturally influenced by philosophical charts of knowledge (the Congress system being an important exception) and, like philosophical classification tend to be relative broad. We discover that the early history of book classification reveals the emergence in a crude form of certain fundamental principles which, like a river, may disappear underground for a time, only to return in a fuller torrent later on".

Islamic Traditions

The knowledge and art was tremendously developed during the Islamic period. The Muslims not only established libraries but also classified the knowledge. The books dealing with Islam and the books written by Muslim philosophers comprised different parts and chapters.

"The classification of knowledge under Islam had a religious as well as etymological beginning". The prime concern of the Muslim philosopher

was how the knowledge be transferred to the posterity in an organised way. Hence, the Muslim philosophers devised a number of classification systems over the centuries.

The history of Islamic tradition of classification depicts such a pattern that not only the books were arranged on the library shelves but the scope and position of each science within the total scheme of knowledge was also kept in view. Many efforts were made in this regard.

For instance, Al-Kindi and Al-Farabi developed their classification schemes during the 9th and 10th centuries. Similarly, Al-Ghazali and Fakhr-al-din Al-Razi made a contribution in developing the classification of knowledge. There are many Muslim philosophers who classified knowledge by their own.

2.2 Objectives

This unit will enable you to:

1. describe the history of classification in general
2. discuss western tradition of classification
3. discuss the development of classification during 19th and 20th century
4. explain Islamic tradition of classification

2.3 Compulsory Readings

1. Kumar, Kirshen. Theory of Classification. New Delhi: Vikas, 1988. PP 388 - 408.
2. Maltby, Arthur. Sayer's Manual of Classification for Librarians. London: Andre Deutsch, 1975 [Section Two].
3. Ziauddin Sardar. Islam: an Outline of Classification Scheme. New York: Saur, 1979.

2.4 Suggested Readings

1. Sengupta, B & Ohdedar, A.K. Library Classification. Calcutta: World Press. 1977. PP 210-223.
2. Sabazwari, Ghani- UL -Akram. Darja Bandi (Urdu) Karachi: Library Promotion Bureau, [Chapter 2].

2.5 Self-Assessment Questions

- Q.1 Name any four classifications schemes, which were developed during the 20th century.
- Q.2 The history of classification is mainly the history of human thoughts.
i) True
ii) False
- Q.3 West oriented classification schemes are not biased towards works on Islam.
i) True
ii) False
- Q.4 Describe three mental faculties of Bacon.
- Q.5 "the library had reached a very high position, in number of volumes as in character, amongst the national libraries of the worlds; the librarian thus determined to commence the formidable task of providing his great collections with an entirely new and minutely classification". Explain the statement quoting the reference.
- Q.6 Which classification scheme is popular in English speaking countries?
- Q.7 The notation of expansive classification is:
i) Mixed
ii) Pure

- Q.8 In which country, large numbers of libraries have adopted Colon Classification?
- i) India
 - ii) Pakistan
 - iii) None
- Q.9 Name an old classification scheme, which comprise some eleven thousand subdivisions
- Q.10 "At the beginning of the nineteenth century, the arrangement of books in Congress Library was according to:
- i) Color
 - ii) Subject
 - iii) Chronological order
 - iv) if any other, name it.

2.6 Answers to SAQs

1. {DDC, CC, UDC, & BC}
2. True
3. False.
4. Memory, Imagination, Reason (Sayers' Manual)
5. See Sayers' Manual, section two for answer.
6. DDC.
7. Mixed.
8. India (Krishan Kumar's book. Page 386)
9. Brunet Classification (Sayers' Manual p.113)
10. Size.

UNIT-3

**COMPARATIVE
STUDY OF MAJOR
CLASSIFICATION SCHEMES**

3.1 Introduction

Any classification scheme facilitates to arrange the library material in a systematic fashion in order to access the information easily from library shelves. That is why a number of classification schemes are in practice by the group or individual libraries in different parts of the world on the basis of compatible scheme for the libraries.

It is generally considered that Dewey Decimal Classification (DDC), Universal Decimal Classification (UDC), Library of Congress Classification (LC), Colon Classification (CC) and Bibliographic Classification (BC) are the major classification schemes under use. The comparative study of these schemes shows the similarities and dissimilarities as well as strengths and weaknesses of individual schemes.

There are number of features which help to make a comparison but a brief account of detail is given here. The self-study will enable you to know the certain merits, demerits and compatibility of individual schemes in order to arrange certain types of library collection.

It is obvious that all the major classification schemes are western and were devised during 19th and 20th centuries on the basis of theoretical considerations except Library of Congress Classification (which is a tailor-made scheme). All these schemes employ mixed notation except Dewey Decimal Classification. These schemes have the similarities and differences with each other, specially there is considerable resemblance between DDC and UDC and a little between LC and CC.

These schemes have certain shortcomings specially in case of classifying the literature on Islam and oriental topics. More clear instructions are available for the use of DDC, rather it is easy as compared to other schemes. Schedules mnemonics are available in most of these schemes except Colon Classification. Universal Classification and Dewey Decimal Classification are widely used throughout the world. The length of class number is long in DDC and UDC as compared to LC and CC.

The comparative study indicates that these schemes are biased to their area of origin as these schemes give detailed treatment to subject of their own interest specially in the field of literature, language, religion and so on.

3.2 Objectives

This unit will enable you to

1. Define the structure of major classification schemes
2. Compare strengths and weaknesses of major schemes of classification
3. Discuss compatibility of individual schemes for different types of libraries
4. Assess similarities and dissimilarities amongst the major classification schemes.

3.3 Compulsory Readings

1. Kumar, Krishan. Theory of Classification. New Delhi: Vikas, 1988. pp.388-408
2. Maltby, Arthur. Sayers' Manual of Classification for Librarians. 5th ed. London: Andre' Deutsche, 1975. pp.143-219.

3.4 Suggested Reading

Phillips, W. Howard. A Primer of book classification. 5th ed. London: AAI 1961. pp.58-166.

3.5 Self-Assessment Questions

- Q. 1. Name the classification scheme, which was jointly produced by library staff.
- Q. 2. Describe PMEST?
- Q. 3. While assigning class number in UDC which sign is used if a document deals with two topics?

Q. 4. "It might have been expected that the Library of Congress would have adopted either DDC or Cutter's Expansive Classification when the decision was made to abandon the Jeffersonian system employed in the nineteenth century and to reclassify according to a more practical and flexibly arrangement". Explain the statement quoting the reference.

Q. 5. DDC is not based on hierarchical notation.

- i) True ii) False

Q. 6. UDC has close resemblance with:

- | | |
|------------------|--------|
| i) DDC | ii) LC |
| iii) CC | iv) BC |
| v) None of above | |

3.6 Activities

1. Visit different types of libraries in order to know the practice of different types of schemes in those libraries.
2. Describe your observation which scheme of classification is being widely used in Pakistani libraries and why
3. Observe, why few libraries, i.e. (specially school libraries) are not using any classification scheme..

3.7 Answers to SAQs

1. Library of Congress Classification
2. Locate the answer in Manual of Classification for librarian through browsing PP. 190-206.
3. {+ Plus Sign} see Phillips Book art pp. 125-140
4. Sayers' Manual {browse the pages yourself and write the complete answer and reference.
5. False
6. DDC. (See Sayers' Manual).

UNIT-4

**STUDY OF CLASSIFICATION
SCHEMES LOCALLY USED**

4.1 Introduction

The major functions of any library and information center are to acquire, preserve and make available the recorded knowledge for those who desire to study certain documents in their field of interest. But if a library fails to arrange all types of documents (books) then the library users face a number of problems to have access. Whatever the case may be regarding the arrangement of library collection, it is observed that Dewey Decimal Classification is used locally in small and large libraries due to its simplicity, hospitality, getting the ready-made classification numbers for various document sand and clear instruction for users. The other factor of its wide local use is that its number can easily be extended for specific documents. The other major schemes such as Library of Congress Classification and Universal Decimal Classification are also used locally on very small scale (specially in scientific libraries).

As all the schemes practiced locally are western and unable to classify all types of Islamic and oriental literature at micro level. These schemes have a number of deficiencies and are cramped for space for a number of topics of oriental origin. Although, the general classification schemes deal with classification of Islamic as well as oriental literature but many problems are associated in this regard. To overcome these problems, a number of attempts were made to produce such classification schemes and expansion which may fulfil the local needs of classification which are not provided in general schemes of classification.

The other schemes and expansions in practice locally are those which have been worked out by a few library experts.

Mr. Muhammad Shafi worked out on DDC class 297 and produced "Expansion of Dewey Decimal Classification relating to oriental topics" which was mimeographed and issued by the Department of Library Science, University of Karachi.

Similarly, Mr. & Mrs. Mahmud-ul-Hassan late worked out historical and geographic special expansions for Pakistan which is based on DDC class 954.9. They also prepared table for literature on Pakistan on the basis of 18th edition of DDC.

"Islam: Outline of Classification Scheme" was devised by Ziauddin Sardar published in 1979. This scheme was based on general idea from Colon Classification. It is an easy classification in which "each class of knowledge contains grouping of like terms: the grouping are arrived at by objective examination on concepts". A very small number of libraries use it locally.

4.2 Objectives

This unit will enable you to:

1. identify the suitable locally devised classification schemes.
2. describe why various classification schemes are in use.
3. explain the problems involved in classification schemes being used locally.

4.3 Compulsory Readings

1. Dewey Decimal Classification and Relative Index. 20th ed. edited by John P. Comaromi et. al. Albany: Forest Press, 1989. 4 vols.
2. Mahmud-ul-Hassan & Zamurad Mahmud (Mrs.) Historical and geographical special expansions for Pakistan. Rawalpindi: Federal Book Corporation, 1989.
3. Shafi. Muhammad. Expansion of Dewey Decimal Classification relating to oriental topics. Karachi: Dept. of Library Science, University of Karachi, 1962 (Rev ed. in Urdu) Shafi Eshariayi Taqsim Baraye Islam. Edited by Anis Khurshid. Karachi: Royal Book, 1977.
4. Ziauddin Sardar. Islam: Outline of Classification Scheme. London: Clive Bingley, 1979. pp. 11-17.

4.4 Suggested Reading

Sabzwari, Ghani-ul-Akram. Darja Bundi: Aawal & Doam (Urdu). Karachi Library Promotion Bureau.

4.5 Self-Assessment Questions

- Q. 1. Is it true that DDC is not comprehensively compatible for classifying the documents on Islam and oriental topics?
i) True ii) False.
- Q. 2. "Islam:- Outline of Classification Scheme" devised by Ziauddin Sardar uses pure notation.
i) True ii) False.
- Q. 3. Name the classes, which are used for religions other than Islam in the scheme, devised by Ziauddin Sardar.
- Q. 4. "Firstly, there is the problem of physical limitation: most of these classifications do not give adequate details for accurate subject specifications. The ideology of Islam endeavours to regulate man's behavior in every aspect of life by determining standards. Laying down codes and laws and by setting concrete examples".
Identify, from where the above statement has been taken and what it is about?
- Q. 5. The expansions compiled by Mahmud-ul-Hassan discuss the geographical subdivisions of Pakistan in a detailed way ?
i) True ii) False.

4.6 Activities

1. Visit a number of libraries and observe the classification schemes which are locally used.

4.7 Answers to SAQ's

1. True. 2. False.
3. Pre-main classes and Post-main classes.
4. See Ziauddin Sardar's book for answer at p. 13.
5. True.

UNIT 5

**STUDY AND PRACTICE
OF DDC 19TH EDITION**

5.1 Introduction

DDC 19th edition is analogous to DDC20; however, there are some variations among these two. The major change in DDC20 is the presence of Manual for practicing classifiers and students. Most of the guiding principles of DDC 19th edition are same as contained in DDC 20th except a few variations at different places. Follow the basic procedure in number building process as contained in DDC20 at the time of classifying the documents through DDC 19th edition.

The DDC 19th edition was published in 1979 comprising 3 volumes. It contains approximately 3,000 pages covering some 30,000 entries. The physical format and characteristics of the text of three volumes are as below:

Volume-1 (Tables): It contains introduction, seven auxiliary tables, relocation of numbers and three summaries (at the end of Volume-1). This volume describes the guidelines for classifying the documents (books) and explains various notes and overall process of number building.

Volume-2 (Schedule): This volume enumerates the class numbers of different subjects and disciplines. The structure and format of the schedules are almost similar to DDC20. The numbers of the schedules begin from 000-999.

Volume-3 (Index): It includes the entries of the schedules and tables alphabetically. The various aspects of a subject are indicated in the relative index in a number of places where they may have a relation with a subject.

To have a better and clear perception of three-volume text of DDC 19th edition, one must start a self-study of the scheme. The practice of DDC 19th edition required the similar procedure as mentioned in earlier units except a few variations.

Using the volumes of DDC 19th edition, locate the proper class numbers of different topics. Verify your answers in the key at the end of this unit.

5.2 Objectives

This unit will enable you to:

1. describe certain features of DDC 19th edition.
2. assign classification numbers to different topics.

5.3 Compulsory Reading

Dewey Decimal Classification and Relative Index. 19th ed. edited by Benjamin A Custer. Albany: Forest Press, 1989.

Practice and Number Building Through Schedules

Analyse the following topics and find appropriate classification numbers.

Exercise-1

1. History of Portugal.
2. How to cook food.
3. Concept of hell and heaven in Islam.
4. Loyalty of citizenship with State.
5. Prison libraries.

Using Standard Subdivisions Table-1

Exercise-2

1. Theory and philosophy of central government.
2. Directory of airlines companies.
3. A serial on private law.
4. Encyclopaedia of Library & Information Science.
5. History of crystallography.

Using Number Building from the Area Table-2

Exercise-3

1. Rental libraries in Karachi.
2. Women workers in Saudi Arabia.
3. Botanical Gardens in Sicily.
4. Pakistan International Airlines.
5. Zoological Museums in Japan.

Using Subdivisions of Individual Literature Table-3

Exercise-4

1. Collection of Urdu literature displaying idealism.
2. German poetry.
3. Hindi poetry displaying comedy.
4. Collection of dramatic poetry.
5. Chinese jokes.

Using Subdivisions of Individual Languages Table-4

Exercise-5

1. Hebrew grammar
2. A Dictionary of Arabic into English
3. English Thesaurus.
4. Urdu Dictionary.
5. English-Bengali Dictionary.

Using Racial, Ethnic and National Groups Table-5

Exercise-6

1. Sociology of Canadians.
2. Suicide in Lithuanians.
3. Ethnopsychology of Serbs.
4. Ceramic arts of Chinese.
5. Social problems of Turks.

Using Languages Table-6

Exercise-7

1. Akhbar-e-Jehan (Urdu Magazine).
2. Translation of Bible onto Sinhalese.
3. Arabia words used in Urdu.
4. A book on Siwi language.
5. General Encyclopaedia of Urdu.

Using Groups of Persons Table-7

Exercise-8

1. Photography for astronomers.
2. Ceramic arts by females.
3. Customs of philosophers.
4. Ethics of librarians.

Key To Answers

Exercise-1

- | | | | | | |
|----|--------|----|---------|----|--------|
| 1. | 946.9 | 2. | 641.5 | 3. | 297.23 |
| 4. | 232.65 | 5. | 027.665 | | |

Exercise-2

- | | | | | | |
|----|----------|----|-------------|----|---------|
| 1. | 351.0001 | 2. | 387.7065025 | 3. | 346.005 |
| 4. | 020.3 | 5. | 548.09 | | |

Exercise-3

- | | | | | | |
|----|--------------|----|-----------|----|------------|
| 1. | 027.3549183 | 2. | 331.4538 | 3. | 580.744458 |
| 4. | 387.70655491 | 5. | 590.74452 | | |

Exercise-4

- | | | | | | |
|----|--------------|----|----------|----|-----------|
| 1. | 891.43908013 | 2. | 831 | 3. | 891.43107 |
| 4. | 808.812 | 5. | 895.1807 | | |

Exercise-5

- | | | | | | |
|----|----------|----|----------|----|--------|
| 1. | 492.45 | 2. | 492.7321 | 3. | 421.31 |
| 4. | 491.4393 | 5. | 423.9144 | | |

Exercise-6

- | | | | |
|----|-------------|----|----------------|
| 1. | 301.408911 | 2. | 364.1522089992 |
| 3. | 155.8491822 | 4. | 738.089951 |
| 5. | 362.849435 | | |

Exercise -7

- | | | | | | |
|----|-----------|----|-----------|----|--------------|
| 1. | 059.91439 | 2. | 220.59148 | 3. | 492.72491439 |
| 4. | 493.3 | 5. | 039.1439 | | |

Exercise -8

- | | | | | | |
|----|-----------|----|------------|----|---------|
| 1. | 770.24521 | 2. | 738.088042 | 3. | 390.411 |
| 4. | 174.9092 | | | | |

UNIT-6

**STUDY OF DEWEY
DECIMAL CLASIFICATION
20TH EDITION**

6.1 Introduction

Dewey Decimal Classification (a system of classification), devised by an American librarian, Melvil Dewey was first published in 1876. This system is widely used in a number of libraries of the world. The Forest Press, New York released the 20th edition of DDC in 1989 (consisting of 3,383 pages in four volumes).

The volume-1, i.e. Tables, contains introduction to the Dewey Decimal Classification, auxiliary tables and relocations. The introduction to the Dewey Decimal Classification as provided in DDC volume-1 describes how to use DDC. However, Manual (in volume-4) also facilitates the use of DDC. The auxiliary tables in (Volume -1) are used only in conjunction with schedule numbers frequently and/or when instructed in the case of individual tables. Tables numbers are never used alone and the dash (-) preceding each of the number is omitted when the table number is added to a schedule number.

Volumes-2 and 3 (i.e., Schedules) contain the knowledge organised from 000 to 999. However, volume-2 begins with three summaries of the DDC schedules and it also contains class numbers given in numerical order from 000 – 599. The three summaries in the beginning of volume-2 may help to visualise the elementary structure and scope of various subjects as contained in DDC.

Volume-3 consists of class numbers 600-999. Volume-4 contains of "Relative Index and Manual" Relative Index provides an alphabetic list of subjects found in schedules and tables, whereas Manual provides the instruction for classifying the documents. Index also acts as key to the location of various subjects and it brings together all those aspects and relations of a topic which are not brought together in the schedules. In other words, it is important to know that there is no single space for a single subject. It means that any subject, for example, "Color" may appear in a number of disciplines (See index).

Outline or Main Class Structure of DDC

Melvil Dewey divided the "entire world of knowledge into ten main classes and then divided each class into ten sub divisions. Each sub

division has further been divided in ten sections. These are called 1st, 2nd & 3rd summary respectively".

In the scheme, main classes, sub divisions and summaries under certain classes are normally shown with bold typeface. The main classes of DDC 20 are:

000	Generalities
100	Philosophy, psychology
200	Religion
300	Social Sciences
400	Language
500	Natural Sciences and Mathematics
600	Technology (Applied Sciences)
700	The arts
800	Literature and rhetoric
900	Geography, history

The above Arabic numerals represent various subjects and are used as notation or class numbers. For instance main class 200 is used for "works on "Religion" and limited to all the religions of the world.

Main Features of DDC 20

Summaries

The three summaries contained in the beginning of volume-2 provide an overview and complete structure of DDC-20. Single-level summaries contained in various parts of the schedules in bold typeface provide an overview of classes. See for example under the class 332 in volume-2 at page 303.

Entries

The format of schedules and tables entries are composed of DDC numbers in the number column (the column at the left margin), a heading describing the class that the number represents, and often one or more notes. The first three digits of schedule numbers (main classes, and division, sections) appear only once in the number column (when first

used). They are repeated at the top of each page where their subdivisions continue. Subordinate numbers (beginning with decimal point) appear in the number column, with the initial three digits "understood". See examples under 001 in volume-2 at page-3.

Notes

A number of notes such as "general aspect notes", "class-here notes", "class elsewhere notes", "relocation notes", "inclusion notes", "number building notes", and many other notes in a number of places in schedules and tables are included. These notes explain a number of purposes about the proper use of different numbers. See different examples under class numbers 379.11, 513.211, 690, 363.7, 372.43 and so on.

Number Building Techniques in DDC20

There are number of steps for building classification number. The process is briefly discussed here. To become expert one must study the DDC scheme thoroughly.

To classify a work properly, the very first step begins with analysing the subject of the document in hands. Follow the steps as enumerated in Unit-1 to identify the subject. Once the subject is identified then proceed further to determine the field of study in which it falls and mode of treatment by the author.

"The guiding principle of DDC is that a work is classed in the discipline for which it is intended, rather than the discipline from which the work derives. For example, a work by a Zoologist on agriculture pest control should be classed in 'agriculture' unless it concentrates on background biological data in which case it should be classed in Biology".

The basic approach to find a classification number is to browse the schedules as required. However, three summaries and the Relative index may also help a lot to build or find a classification number. For instance, the subject in hands is about "Sociology" or "Physics" therefor, one will look 301 and 530 in the schedules whatever the case may be. The other way to approach the specific class is through the use of summaries and index if someone is stuck or confused to find the proper place in the scheme. But,

an expert of classification knows the hierarchy of classes, their subordination and relationship. For example one intends to classify the topic "Surgery of head and neck" then one can class it easily in 617.371 at the same specific class number on the topic concerned.

To be well conversant with DDC20, it is better to look up or use the scheme (four-volume text) of DDC frequently for classifying the document. In case of difficulty, relative index is the easiest approach in locating the number but some times it only provides a clue on the subject matter (see DDC20 volume- 1 section 10.1–10.7 for Relative Index).

Basically, there are many other ways for building class numbers on certain topics which are governed through synthesising the numbers from the schedules and auxiliary tables (see volume-1 for the use of auxiliary tables and synthesising schedules number under 338.13 in volume-2 at page 377). More or less, self study will enable you to understand the DDC20 in detail by browsing volume-1 and 2.

6.2 Objectives

This unit will enable you to:

1. use the DDC easily and effectively
2. explain and describe the over all structure and main features of the scheme
3. describe the concepts used in DDC
4. build up classification numbers.

6.3 Compulsory Readings

1. Dewey Decimal Classification and Relative Index. 20th ed. edited by John P. Comaromi et. al. Albany: Forest Press, 1989. (4 vols.) pp. xix-ix (vol.1) & pp.735-961.
2. Encyclopedia of Library & Information Science. edited by Allen Kent & Harrold Lancour. New York: Marcel Dekker, 1972. pp. 128- 141.

3. Samdani, R. A. Dewey Decimal Classification Scheme (editorial) PLB. 20(4) December 1989) pp. i-ii.

6.4 Suggested Readings

1. Harrison, Colin & Rosemary, Beenham. The Basics of Librarianship. 2nd ed. London: Clive Bingley, R.P., 1989. pp. 46-53.
2. Turner, Christopher. Organising Information Principles and Practice. London: Clive Bingley, 1987 pp. 66-78

6.5 Self-Assessment Questions

- Q.1 In the scheme of DDC, what are the minimum required digits to classify a document?
- Q.2 A decimal point is used when notation of class number of a subject exceeds more than?
- | | |
|-------------------|-----------------|
| i. One digits | ii. Two digits |
| iii. Three digits | iv. Four digits |
- Q.3 How many auxiliary tables are contained in DDC?
- Q.4 The dash (-) preceding each of the table number shows:
- | |
|--|
| i. table numbers are used separately |
| ii. tables numbers are not used separately |
| iii. both the above. |
- Q.5 Name the auxiliary table that further contains table a, b, & c?
- Q.6 Name the largest table among all the tables and what does that table contain?
- Q.7 Observe the schedule numbers carefully, the numbers, which gets longhand and tell where the spaces are used in number structure?

- Q.8 Is it true that class numbers enclosed in square brackets are usable in current edition?
- True
 - False
- Q.9 Locate a class number under the heading "Economics of Handicrafts Industries"?
- Q.10 The structure of DDC notation is non-hierarchical?
- True
 - False
- Q.11 DDC Relative Index Is composed of :
- Names and headings only
 - Persons and places only
 - Areas, historical periods persons only
 - All of the above.
- Q.12 Explain Standard Subdivision?
- Q.13 Explain " Call Number" and give one example?
- Q.14 Explain Centered Heading.

6.6 Activities

1. Attempt to read complete introduction to the Dewey Decimal Classification volume-1 and guiding principles in the Manual so as to know the proper use of the scheme of DDC and its main features in number building process.
2. Carefully study the entire auxiliary tables in order to know the types of contents included in different table as well as their proper use.

6.7 Answers to SAQs

1. Three Digits
2. Three digits.

3. Seven
4. {Table numbers are not used separately} DDC. see vol. 1
5. {Table-3 Subdivision for individual literature for specific literary forms}. DDC. See vol.1
6. Table-2 Areas, it contains the areas numbers of terrestrial and extraterrestrial world periods etc.
7. Between sixth and seventh the digits and between ninth and tenth digits and so on.
8. False.
9. 338.477455
10. False.
11. All of the above.
12. {See DDC vol.1 for answer}.
13. {See DDC vol. 1 for answer}
14. {See DDC for answer}

UNIT-7

PRACTICE OF DDC 20TH EDITION

7.1 Introduction

Classifying the document is an art, which requires analysing and identifying the documents in hand. The practice of DDC20 depends upon the canons of classification laid down in four volume text of DDC. To be well conversant with the system of classification, one must know the theoretical and practical basis of the scheme.

The exercises compiled in this course, cover almost all the features of number building approaches. Most of the classification numbers are ready made and enumerated in the schedules. In such cases, one can find a class number easily but sometime a classifier needs to classify the document minutely by synthesising a number on the basis of guiding principles because all the classification numbers are not printed in number column in the schedules. Similarly all the classification numbers for certain subjects and disciplines are not available in the Relative Index. Instructions may be followed properly while classifying the documents.

To take a good start for practicing the DDC20, one should recall to understand that how DDC20 has divided the knowledge. Initially, the study and use of three summaries is the best way to comprehend overall structure of the DDC. It is obvious that summaries are not frequently used to classify the documents but just tell the span of number of the various subjects.

Using the volumes of DDC20, locate the proper class numbers of different topics. Verify your answers in the key attached at the end of this unit.

Exercise-1

1. A book on Islam
2. Meal Engineering
3. History of Ancient Egypt
4. An encyclopaedia of Arts
5. Civil Engineering

6. A book on Petrology
7. Postal Communication
8. Library & Information Science

Practice Through Schedules

Students are supposed to locate the proper classification number from the schedules.

Exercise-2

1. Concept of oneness in Islam
2. Pakistan in the mirror of history
3. Dewey Decimal Classification
4. Marathon races
5. Psychology of boys
6. International Copyright Law
7. Urdu Language
8. A book on Mars (Planet)
9. Surgery of Face
10. Dutch Literature

Practice Through Index

Sometimes, a classifier is stuck to identify the subject and its resulting number in case of locating the number of a complicated topic. In such cases, index may help you because it acts as a key to the subjects. Locate the complicated topics in the index and verify it from the schedules.

Exercise-3

1. Syllogisms.
2. History of Surinam.
3. Toxicology.
4. Ontology
5. Ethics of empiricism
6. Paleontology
7. Seismology
8. Tractor repairs.

Use of Auxiliary Tables

As mentioned earlier that table numbers are never used separately, however, usable with appropriate numbers from the schedules.

Table-1 Standard Subdivision

Standard Subdivisions indicate the mode of treatment of a subject in which it appears in physical form. Standard Subdivision (s.s) may be added to any class number unless there is instruction to contrary, if they (s.s.) are already enumerated in the schedules then no need to add from the table. The standard Subdivisions are also applied at the discretion of classifier. Standard Subdivisions always start with zero but may begin with two or even three zeros and remain the same in meaning while using them with any number from the schedule. For example, Encyclopaedia of Inorganic Chemistry.

546 Number taken from the schedule

03 Number taken from table-1 as s.s.

Resulting number is 546.03

In the above example, inorganic chemistry is the subject and encyclopaedia as Standard Subdivision. See details in DDC-20 vol.1 at page 4 and in vol.2 at page 735.

Exercise-4

- 1 Encyclopaedia of Islam
- 2 A serial on Private Law (Use double zero as 05 is already enumerated in the schedule for an other concept)
- 3 University courses in Library & Information Sciences (in case of zero on the both sides of decimal, then drop a zero as it is redundant then confirm it from the schedule in case of clash)
- 4 Dictionary of Politics (here one may not drop the zero) verify it from the schedules
- 5 Theory of Local Government
- 6 History of Constitutional Law

Use of Table-2

Sometimes a subject is related or identified to a geographical area. In such cases, there is a need to add area number from the table. This table is used directly when there is instruction or so noted otherwise through the interposition of 09 from table 1.

e.g.	Wages in Pakistan.
331.29	Class numbers taken from the schedule
-5491	notation taken from table-2
	Resulting number 331.295491
e.g.	Railroad transportation in Japan.
385	number taken from the schedule.

-09 notation from table-1

-52 notation from table-2

Resulting number is 385.0952

Follow the instructions carefully while building number through table-2. Area numbers are also added to base number and two areas numbers can also be used at a time.

Exercise-5

1. Political condition in Scotland.
2. Libraries in Senegal.
3. Foreign relation between Pakistan and Japan.
4. History of Quetta, Bahawalpur and Karachi. (Follow first of three rules.)
5. Standard of living in urban region.
6. Women education in Djibouti.
7. Newspapers in Pakistan.
8. Sun bathing in Holland.

Use of Table-3

The use of table-3 is exclusively meant for the main class 800 (Literature). It comprises three sub tables as well. The notation of this table is added to the base number for individual literature identified by an asterisk (*). While building class number it may be kept in mind that the language in which classes individual literature it was originally written regardless of any other characteristic.

One may find the notation of specific literary form in consulting table-3; and its sub-tables. i.e. 3a, 3b, & 3c. The notation from table-3 may be added as required.

Note well that Tables 3a, 3b & 3c describe the specific features of literary forms. Follow the instructions for building numbers with respect to specific literary forms and time facet etc.

Exercise-6

- 1 Urdu prose
- 2 A book on Dutch Literature
- 3 Korean poetry
- 4 Love fiction in Japanese
- 5 Collection of humorous poetry
- 6 German literature for girls
- 7 Collection of Urdu literature displaying social themes
- 8 Shaheen (Historical Urdu Drama)
- 9 Urdu poetry in 20th century

Use of Table 4

The subdivisions enumerated in table-4 are also exclusively used only for class 400 to those individual languages identified by (an asterisk). The notation in this table is composed of linguistic problems deal to the elements necessary for the structure of individual language e.g. writing system grammar and so on. If need arises then other table such as table-1 and table-6 are extended on certain stages. Below is an example of table 4.

e.g. Grammar of Urdu Language .

Base number for Urdu is 491.439

Grammar 05 (from table 4)

Resulting number is 491.4395

Bilingual Dictionaries

"The Decimal Classification Division classes a bilingual dictionary with entry words in both languages with language coming later in the sequence 420-490" (see Manual vol. 4 at page 787 and vol-1 page 418.

The method for constructing bilingual dictionary is as under:

To base number then add dictionary number from Table 4 and resultantly notation for second language from table 6

Exercise-7

- 1 A book on Urdu alphabets
- 2 Japanese spelling and pronunciation
- 3 A Dictionary of English and Urdu
- 4 Urdu-Hindi Dictionary
- 5 Persian words and phrase used in Urdu
- 6 English primer for Urdu speaking readers

Use of Table-5

This table describes the people based upon their racial, ethnic and national characteristics or origin. The notation of the table can be used directly when there are instructions to do so or through the interposition of 089 from table 1 with respect to relationship of a document with any of the above characteristics.

e.g. Psychology of Nepalese.

155.84 Class number taken from the schedules

-5496 notation taken from table-5

Resulting number is 155.845496

If there are no instructions in schedules with respect to adding the notation from table-5 then procedure will be followed as:

e.g. Ceramic arts of Japanese.

738 (Schedules number)

-089 (notation from table 1)

-956 (notation from table 5)

Resulting number is 738.089956

It may be noted well that notation form other tables are also usable while using the table- 5 as required.

Exercise-8

1. Chinese cooking.
2. World history of Arabs.
3. Ethnopsycholgoy of Pakistani people.
4. Balochi handicrafts in England.
5. Pashtun folk music in Balochistan.
6. Child labor with respect to Bengalis.
7. Reading habits of Dogon people.
8. Sociology of Africans.

Use of Table-6

Table 6 may be used when a subject is treated with respect to language facet. It includes a complete list of all the known languages and used to supplement any number from the schedules and the tables when required. Therefore, one can add notation from the table but instructions so far provided may specifically be followed. The use of this table is easy as shown in the following examples:

e.g. Translation of Bible into German language.

220.5 (see the required Schedules)

-31 (see table -6 for required language)

Resulting number is 220.531

Exercise-9

1. A book on calligraphy in Urdu.
2. Translation of Quran into Pali.
3. Hindi Urdu Dictionary.
4. English as foreign language in elementary schools
5. German proverbs.
6. General Encyclopaedia in French

Use of Table-7

This table describes groups of persons associated with different fields of knowledge and their other characteristics such as age, health, marital status, economic condition and so on other than racial, ethnic and national characteristics. The notation of this table can be used with appropriate number from the schedules and through the interposition of 088 from table-1. The other tables may also be used as required:

e.g. Collection from more than one literature by Lutherans.
808.89 (Derived from the Schedules)
-92 (Derived from Table-3 C)
-214 (Derived from Table-7)

Resulting number is 808.8992214

Exercise-10

1. Muslims as artists
2. Mathematics for Librarians
3. Ethics of Cyclists
4. Sociology of Doctors
5. Social Stratification of Sikhs in Nepal
6. Ceramic Arts by the blinds
7. A book on Social Groups of Railway workers

Using Citation and Precedence Order

"If there is no provision to show more than one of the aspects or characteristics, it is a matter of precedence (because one choice must be made among several characteristics)". See the example under 305.9 at page 254 in volume-2 of DDC.

Where "citation order allows the classifier to build or synthesise a number using two or more aspects of characteristics as specified in instruction notes" see example under 330.91-99 at page 307 in volume-2 of DDC.

Exercise-11

1. Foreign relation between China and Pakistan.
2. Wooden made chairs and tables
3. Outdoors cooking for pregnant women.
4. Development psychology of pre-school girls
5. Vegetation cooking for travel
6. Auditing fixed assets

Synthesis Through Schedules

The Synthesis features allow classification number to be built up from a schedule. The practice of synthesising from tables has already been completed.

Exercise-12

1. Price of Wheat.
2. Bibliographies of Programs for digital Micro computers.
3. Physiology of connective tissues.
4. Classification of books on sociology of pre-school girls.

Using Pattern Entry

The pattern entry includes number building process at a particular class number, concept of dropping the zero and special use of a particular standard subdivision (see example under 352, 320 and so on).

Exercise-13

1. Bibliography of books on physics.
2. Organisation and financial management of air transportation.
3. Historical perspective on modern western philosophy.
4. Recommended books on DDC: A bibliography.

Redundance and Inheritance

It is obvious that sometimes standard subdivisions have already been enumerated or added to the number. In such case there is no need to add any number to avoid the redundancy.

Exercise-14

1. Encyclopaedia of Science.
2. Theory of Central Government.
3. History of Philosophy.
4. History of Quetta.
5. Travel in Pakistan.

Exercise-15

Collection of Urdu poetry by mathematicians

Allama Iqbal Open University, Islamabad imparting library science education

Designing low cost houses for ill persons.

Photography of plants

Trade between Pakistan and Zambia

7.2 Objectives

This unit will enable you to:

1. locate the appropriate place and number for classifying material from four volumes text of DDC
2. assign and synthesise various classification numbers
3. solve the exercises on the basis of guiding principles.

7.3 Compulsory Readings

1. Dewey Decimal Classification and Relative Index. edited John P. Comaromi et. al. Albany: Forest Press, 1989.
2. DDC 20th ed. 4 vols.

7.4 Suggested Reading

Encyclopaedia of Library & Information Science. edited by Allen Kent & Harrold Lancour. New York: Marcel Dekker, 1972. pp. 128-141.

7.5 Self-Assessment Questions

- Q.1 What is the meaning of numbers enclosed in parenthesis ()?
- Q.2 Some numbers in the schedules are enclosed in brackets []. What do they indicate?
- Q.3 Explain with examples the following variety of notes that occur through out the schedules:

Classhere notes, general aspect notes variant name notes, former heading notes, class elsewhere notes, revision notes, relocation notes and discontinued notes.

7.6 Activities

1. Visit a library of your choice to note down some titles of books and then classify them in order to enhance your practice in classification.
2. Attempt to learn the 1st Summary of DDC (contained in the beginning of volume-2) by heart as well as some portions of 2nd and 3rd summaries.

7.7 Answers to SAQs

1. The numbers in parenthesis pinpoint option to standard practice
2. The numbers enclosed in brackets are not usable in current edition and have been relocated or reassigned somewhere else in the schedule. (See DDC vol.1)
3. {See DDC vol.1, 2 and 3 for answer}

Exercise-1

- | | | |
|--------|--------|--------|
| 1. 297 | 2. 765 | 3. 932 |
| 4. 703 | 5. 624 | 6. 552 |
| 7. 383 | 8. 020 | |

Exercise-2

- | | | |
|------------|------------|-------------|
| 1. 297.211 | 2. 954.91 | 3. 025.431 |
| 4. 796.426 | 5. 155.433 | 6. 341.7582 |
| 7. 491.439 | 8. 523.43 | 9. 617.52 |
| 10. 839.31 | | |

Exercise-3

1.	166	2.	988.3	3.	615.9
4.	111	5.	146.44	6.	560
7.	551.22	8.	629.2875		

Exercise-4

1.	297.03	2.	346.005	3.	020.711
4.	320.03	5.	352.0001	6.	342.009

Exercise-5

1.	320.9411	2.	027.0663	3.	327.5491052
4.	954.91	5.	339.47091732	6.	376.96771

Exercise-6

1.	891.439808	2.	839.3119	3.	895.71
4.	895.63085	5.	808.817	6.	830.92827
7.	891.439080355	8.	891.43920514		
9.	891.43917				

Exercise-7

- | | | | | | |
|----|---------------|----|---------------|----|-----------|
| 1. | 491.43911 | 2. | 495.6152 | 3. | 432.91439 |
| 4. | 491.439391431 | 5. | 491.552491439 | | |
| 6. | 428.86491439 | | | | |

Exercise-8

- | | | | |
|----|-----------------|----|-----------------|
| 1. | 641.592951 | 2. | 909.0492702 |
| 3. | 155.84914122 | 4. | 745.50899159042 |
| 5. | 789.29159305415 | 6. | 331.310899144 |
| 7. | 028.90899635 | 8. | 301.08996 |

Exercise-9

- | | | | |
|----|--------------|----|--------------|
| 1. | 745.61991492 | 2. | 297.12259137 |
| 3. | 491.43391439 | 4. | 372.6521 |
| 5. | 398.31 | 6. | 034.1 |

Exercise-10

- | | | | | | |
|----|-----------|----|---------------|----|-------------|
| 1. | 704.2971 | 2. | 510.24092 | 3. | 174.97966 |
| 4. | 301.08861 | 5. | 305.694605496 | 6. | 738.0808161 |
| 7. | 305.9385 | | | | |

Exercise-11

- | | | | | | |
|----|-------------|----|----------|----|---------|
| 1. | 327.7105491 | 2. | 684.13 | 3. | 641.563 |
| 4. | 155.423 | 5. | 641.5636 | 6. | 657.73 |

Exercise-12

- | | | | | | |
|----|-----------|----|---------|----|-----------|
| 1. | 338.13311 | 2. | 011.776 | 3. | 599.01852 |
| 4. | 025.46301 | | | | |

Exercise-13

- | | | | | | |
|----|------------|----|-----------|----|-------|
| 1. | 530.16 | 2. | 387.70681 | 3. | 190.9 |
| 4. | 025.431019 | | | | |

Exercise-14

- | | | | | | |
|----|----------|----|-----------|----|-----|
| 1. | 503 | 2. | 351.0001 | 3. | 109 |
| 4. | 954.9152 | 5. | 915.49104 | | |

Exercise-15

- | | | | |
|----|-----------------|----|---------------|
| 1. | 891.439108092 | 2. | 020.711549142 |
| 3. | 728.1043 | 4. | 778.934 |
| 5. | 382.09549106894 | | |

UNIT-8

**STUDY OF
SUBJECT HEADINGS**

8.1 Introduction

'Subject Heading' is defined as "the word or group of words under which books and other material on a subject are entered in a catalogue in which the entries are arranged in alphabetic order. The heading may include punctuation to which an arranging significance may be assigned".

Minnie Earl Sears prepared the Sears list of Subject Headings in 1923 for small libraries. With the passage of time, a number of subsequent editions of Sears List have been published. The 14th edition was published in 1991, which contained more new headings and classification numbers of twelfth edition of the Abridged Dewey decimal classification and relative index. This list of subject headings "attempts to provide subject headings or pattern for subject headings across the full spectrum of a general library collection".

One may find the structure of Sears List of Subject Headings similar to those of Library of Congress Subject Headings with few variations. It is quite obvious that "the most common form of subject heading is the single word with no subdivision". for example, Agriculture, Physics and Astronomy etc.

The choice of heading is a careful consideration. Therefore, one may use the heading as "subject heading" which is printed in boldface type. The heading or term, which is not printed in boldface, is not considered as a subject heading.

The main purpose of subject heading is to locate a book in the library catalogue on a particular subject other than under the entries of author or title. It is useful because of the fact that sometimes there is uncertainty in the mind of readers about the author's name or title of the book. In such cases one may find the book quickly by searching under the subject. For instance "Smith Basic Mathematics" would be difficult to find quickly if one did not know the author first name and had to consult all the entries in the catalogue under Smith. What if the author name was really spelled Smyth. In either case the book could be discovered under the subject "Mathematics".

The library professionals may formulate a subject heading by their own but they follow a standard list of subject headings to maintain the uniformity in subject headings.

Basically Sears List of Subject Headings is based on a number of principles. These principles provide the guidelines to assign a subject heading to a work in different ways. One may assign a number of subject headings to work as required, but it varies in case of different lists of subject headings. Whereas, according to the Sears List of Subject Headings three subject headings, at the maximum, can be assigned to a work. It is worth mentioning that a cataloguer may personally add a heading from reference sources for proper and common names which is not listed in Sears List of Subject Headings.

The Sears List of Subject Headings is meant for small libraries. For large libraries, Library of Congress Subject Headings (LCSH) is appropriate. The student would study LCSH too.

For local language /literature locally produced subject headings i.e. Mayari Mauzooi Surkhian would be very useful for assigning subject headings.

8.2 Objectives

This unit will enable you to:

1. Explain the origin and pattern of different lists of subject headings
2. Describe the purpose and principles of lists of subject headings
3. Explain how subject headings are assigned to various works.

8.3 Compulsory Readings

1. Chan, Lois Mai. Library of Congress Subject Headings: Principles and Applications. Littleton : Libraries Unlimited , 1986. pp 3-45.

2. Library of Congress Subject Headings. Washington D.C, 1997. 4 vols. pp vii-xvi.
3. Sears List of Subject Headings. 14th ed. Edited by Berleena M. Westly. New York: H.W. Wilson, 1991.

8.4 Suggested Readings

1. The Librarian Glossary of terms used in librarianship and reference book comp. Buy Lonard Montague Harrod. London: Andre Deutsch 1971. p 622.
2. Sinkankas, George M. "Sears List of Subject Headings " in Encyclopaedia of Library & Information Science. Edited by Allen Kent Harold Lancour & J.E. Daily New York: Marcel Dekker, 1979. pp160-179.

8.5 Self-Assessment Questions

- Q.1 While assigning subject headings, ideas are usually stated as:
- i) Singular
 - ii) Plural
- Q.2 How many subject headings can be assigned to a work on the basis of Sears List of Subject Headings?
- Q.3 How many works are usually contained in collective biography?
- Q.4 Can a term be used as subject heading if it is not printed in boldface in Sears List?
- i) Yes
 - ii) No
- Q5 Describe the steps to determine the subject of a printed and unprinted work?

8.6 Activities

1. Observe Cataloguing- in- Publication (CIP) data on verso pages of different books and see the format of subject heading.
2. Visit a library and have a look on classified catalogue for subject headings.
3. Observe a library catalogue for 'See' and 'see,also' reference cards in order to see the proper heading from one heading to another.

8.7 Answers to SAQs

1. Singular.
2. Three
3. More than three
4. See preface of Sears list of Subject Headings for answer.
5. In case of printed material: {Study of title page table of contents preface, introduction, different parts of the work an through reference sources etc.

UNIT-9

**PRACTICE OF
SUBJECT HEADINGS**

9.1. Introduction

Assigning subject heading to different types of works depend upon the principles as laid down in Sears List of Subject Headings. The practice of Sears List of Subject Headings will enable you to assign the subject headings properly. But the very first step is to determine the subject heading for a work accordingly.

Though Sears List of Subject Heading is very popular in Pakistan yet it is meant for small libraries. For large libraries the practice of Library of Congress Subject Headings (LCSH) is the need of hour. The student will be required to practice LCSH & Mayari Mauzooi Surkhian or the appropriate list devised locally for oriental languages.

Browse the Sears List of Subject Headings and assign proper subject heading to each of the following.

Specific and direct entry

Assign a subject heading directly under the most specific term/heading. If the specific term is not available in the list then assign the broader term.

Exercise-1

1. A book on flowers
2. Sears List of Subject Headings
3. Life of crocodile.
4. Growth of Elm and Ash Trees.
5. The acquisition and organization of library material

Exercise-2

"The heading chosen must be unambiguous. If several meanings attach to one work, that work must be qualified"

1. Learning bridge.
2. Making of Bridge.
3. Construction of Bridge
4. A book on Mask
5. Preparation of Masks

Exercise-3 Single Noun

1. How to understand Anthropology
2. Fundamental Chemistry.
3. The Science of Library organization.

Exercise-4 Compound Heading

Compound headings are normally joined with the phrase "and" under one heading.

1. Relationship of libraries with communities.
2. Role of Science in serving the human beings.

Exercise-5 Adjective with Noun

"Often a specific concept is best expressed by qualifying the noun with adjective."

1. A book on Islamic art
2. Psychology and religious matters
3. Economic Geology

Exercise-6 Phrase Headings

"Some concepts that involve two areas of knowledge can be expressed only by more or less complex phrases."

1. Worship without any limitation
2. Use of fish in food
3. Relation between payments and receipts.

Exercise-7 Subdivision by Physical form

A work may appear in physical form e.g. bibliography, dictionary or outline etc. These forms are known as "form division". These subdivisions may be used whenever appropriate.

1. Dictionary of geographic term
2. Who is who in librarianship?
3. Books on children's literature

Exercise-8 Subdivisions that show special aspect or topics

Any subject or discipline may be presented in a number of forms, which are commonly and frequently usable to every subject or discipline. Actually these subdivisions show the particular point of view of a subject.

1. Libraries in the mirror of history
2. How to study and teach the subject of agriculture
3. Impact of library legislation on the development of library services

Exercise-9 Subdivisions that show chronology

If a subject deals with a specific era then it is important to specify the subdivisions that show chronology.

1. History of Pakistan in 20th Century
2. World War during 1939-1945
3. A monograph of modern art in 1990

Exercise-10 Geographic Names

A subject may deal to a specific geographic area. In such cases, subject is subdivided by place and subject subdivides names of places. To do so, instructions are provided in the Sears List.

1. Banks and Banking in Pakistan
2. Mountains of Italy
3. Census of Pakistan
4. Climatic condition in Balochistan
5. Politics and government in Asian countries

Exercise-11 Biography

Biographical work is categorized in individual biography and collective biography.

1. Hundred great lives
2. Who is Who in Pakistan
3. Who is Who in librarianship
4. Biographical dictionary of people

Exercise-12 Language and Literature

1. Urdu English dictionary
2. Arabic dictionary
3. Use of slang in English
4. How to learn Japanese
5. History of Persian
6. Poetry of Urdu by many poets
7. Short stories in English
8. Collection of English Parody

Exercise-13

1. Disk Operating System (DOS)
2. Basic Computer awareness
3. Continuing education for libraries
4. Collection development in libraries
5. Education in developing countries
6. Impact of war on industry and trade
7. Poetry in American language
8. Biography of people related to music
9. Study and teaching of Islam
10. Monograph of honey

9.2 Objectives

This unit will enable you to:

1. use Sears List of Subject Headings LCSH & معیاری موضوعی سرخیاں
2. assign subject headings to various works
3. establish headings for a specific name and subdivisions commonly used in subjects and disciplines even when not listed in any List of Subject Headings.

9.3 Compulsory Readings

1. Library of Congress Subject Headings. Washington DC: LC, 1997.
2. زمرد محمود۔ معیاری موضوعی سرخیاں۔ اسلام آباد۔ 1993
3. Sears List of Subject Headings. 14th ed. Edited by Martha T. Mooney. New York: H. W. Wilson, 1991. pp.1-731.

9.4 Suggested Readings

1. Sears List of Subject Headings 14th ed. Edited by Berleema M. Westby. New York: H. W. Wilson.
2. Sinkankas, George M. "Sears List of Subject Headings" In Encyclopaedia of Library and Information Science. Edited by Allen Kent, Herrold Lancour and J. E. Daily, New York: Marcel Dekker, 1979. pp. 160-179.

9.5 Self Assessment Questions

- Q.1 Compile different types of references of the following terms, headings: Criminology, Crime, Library School, Miscarriage.

Q.2 Explain the following:
May subdivide geographically

Q.3 For what purpose the following symbols are used

- i) x
- ii) xx

9.6 Activities

1. Practice the exercises carefully and assign the subject headings.
2. Go to a library to note down few titles of books by yourself and assign subject headings.

9.7 Answers To SAQs

1. Criminology see Crimes
Crime see Crimes
Library School see also Library Education
Miscarriage see Abortion, Spontaneous; Fatal death
Spontaneous abortion see also Pregnancy
2. See explanation in Sears List of Subject Headings for answer pp. 1-32.