

DRIC Seminar (11)(1974). Paper D.

PLANNING OF LIBRARY AND DOCUMENTATION SYSTEMS : NEED  
FOR A CELL FOR DEVELOPMENTAL RESEARCH IN DOCUMENTATION.

K N PRASAD, Documentalist Central, Machine Tool  
Institute, Bangalore.

The need for developing the basic tools for documentation services, especially the design of depth schedules for classification, by the various documentation centres themselves, is discussed. The work analysis and the time required for the design of depth schedule is illustrated with a case study. It is suggested that it is much more helpful for the various documentation centres to design the depth schedules rather than to depend on one or two research institutions. Therefore, it is proposed that a draft plan for library and documentation systems should make provision for developmental research in the field of library and information science.

## 0 INTRODUCTION

### 01 Documentation

Documentation is defined as a library activity, with emphasis on (1) Nascent idea; (2) Microsubject; and (3) Specialist reader (2). The specialist reader is kept aware of the latest developments in the field of his interest, in conformity with the prescriptions of the Five Laws of Library Science. In other words, the reader gets his information pinpointedly, exhaustively and expeditiously.

## 02 Documentation Services

Some of the very common documentation services, which are provided in specialist libraries are (1) Here documentation lists; (2) Abstracts on demand or in anticipation; (3) Retrospective bibliographies; and the like. The efficiency of any of the documentation services depends mostly upon the techniques used in the preparation of these publications.

## 03 Tools for the Documentation Services

It has now been an established fact that every documentation system should have a foolproof but highly flexible structure, in order to deliver information service to the best advantages of the readers. To infuse productivity into the system, certain basic tools such as classification and cataloguing are very essential. So the librarians and documentalists are engaged in promoting developmental research on these tools, because all the schemes of classification or cataloguing code<sup>3</sup> are not capable enough to be adopted to any environment presented by each national/local documentation centre.

## 04 Classification

The scheme for classification adopted should have the following features:

- 1 Recognizing the new ideas as forming components of different varieties of subjects;

- 2 Determining the inter-relation between or among the components of the different varieties of subjects, and arranging them in a sequence revealing the nature of their respective inter-relations;

3 Ranking appropriately the respective components of the subjects among the existing ones (1); and

4 Reducing the search range within a particular subject and lead a reader precisely to his area(s) of interest in the subject.

The inadequacy of a scheme is always exposed at the time of a crisis. Multi-dimensional growth of literature has been shown to be the main cause for the breakdown of many a scheme for classification. Unless there is a built-in mechanism which can facilitate the accommodation of any number of new ideas without itself being broken down, there is always the danger of a fatal dismissal of the scheme from use. This would speak on many other factors including the economics of the documentation system which has adopted such a scheme.

#### 05 Development of the Scheme for Classification

In addition to having a built-in mechanism which prevents the breakdown or the failure, it should also have a mechanism for the development of the system and to maintain the fitness of the same. Experience has shown that unless a documentation centre develops such techniques and devices so as to have control over the information it proposes to process, there is always the danger of facing a breakdown in the system. It is also known that no scheme for classification is complete by itself, which means that it cannot, as it is, at any time taken to be final and applied for classifying documents. Knowledge, as has already been stated, is ever growing and a dynamic continuum. Only such schemes which cope up

with this rate of growth, end which can accommodate the new isolates cropping up in their right places, can be adopted for processing the information. Colon Classification is a good example for such a type of scheme.

#### 06 Meed for Research in the resign of Depth Schedule

Documentation research in India today/mainly is conducted by the Documentation Research and Training Centre (Indian Statistical Institute), Bangalore and a few Library Science departments in some of the universities. It is obvious that it is not possible for one or two such institutions to conduct research and develop schemes for classification for varied branches of knowledge. Every documentation unit of different research organisations should become documentation research centres also. The responsibility of a documentation unit does not end just by providing the documentation services to its clientele, but also lies with the development of tools and techniques for providing such services. Such techniques amongst others include the design of depth versions of classification schemes. The documentation units of research institutions can act as laboratories for designing and developing depth versions of classification schemes.

#### 07 Research Cell

Therefore, it is very much essential for a documentation unit of a research institution to plan and create a "research cell", whose responsibility would be amongst others, to design and develop depth

versions of classification for subjects of its interest. It is important that they should do this type of research activity because it is they who feel the pulse of the readers, and they have a much better control over the literature than the one or two research (documentation) centres, where basically fundamental research can be conducted. Instead of the "They supply, we apply" principle, "We demand, we supply, we apply" should be encouraged.

The documentation centre which promotes the formation of such a cell shall decide in consultation with the DRIC or any such centre, subjects for which it should design depth schedules or develop those which are already available.

### 03 Development Plan

Thus, it becomes evident that while developing any plan for a national, regional/local documentation centre, provision should be made for a design cell for developmental research in various tools and techniques for documentation. In particular, as there is an ever increasing demand on classification system for documentation purpose, it becomes essential to keep a group of professionals to interact with new developments in the subject-field as well as the latest developments in the field of library classification. In fact, in the National Information and Documentation Centre for Machine Tools and Production Engineering, a provision for research cell in Documentation has been proposed.

#### 1 SCOPE OF PAPER

The purpose of this paper is to demonstrate the practicability of designing depth classification ver-

sions of Colon Classification for various subjects in a National Documentation Centre without getting into conflict with the routine work of providing varieties of documentation services. In order to show a quantitative analysis, a work and time analysis has been made by actually preparing a depth version of CC for compound subjects going with the Host Subject "Grinding Machine Production" as an illustration.

#### 11 Boundary Conditions

The following are the main boundary conditions within which the designing work can be done:

- 1 Knowledge of the methodology of designing a depth schedule for classification; and
- 2 Knowledge of principles and processes of the theory of library classification;

#### 2 PROCEDURE ADOPTED FOR DESIGN;

##### 20 Steps

The major steps which are involved in the design of a depth schedule are:

- 1 Selection of the subject;
- 2 Literature survey;
- 3 Choice of isolates;
- 4 Identification of Quasi Isolates and determination of their sequence;
- 5 Arrangement of speciators;
- 6 Preparation of the index;
- 7 Examples for testing the schedule; and
- 8 Preparation of an alphabetical subject index.

##### 21 Selection of Subject

The documentation service that is being given in an organisation will provide a clue in the choice

of the subjects that need to be given preference in designing the depth schedules. Consultation with the other members of the library staff (or of the documentation research cell) would also help in selecting the subjects. This work of selection may not take much time, provided a decision has already been taken to start with a project of designing depth schedules.

## 22 Literature Survey

The preliminary survey involves the finding or selection of the periodicals, trade catalogues and the like, which deal with the subject selected for the purpose of designing a schedule. This is important because it is these we selected documents which would aid in getting the isolates for enumeration in the schedules. These documents are scanned through and entries prepared for those articles which provide us with isolates. The titles are made fully expressive and written on separate slips.

## 23 Choice of Isolates

With the entries prepared from an assorted variety of documents, isolates are picked up and written in separate slips mentioning the appropriate fundamental categories to which they belong. Contextual meanings are written for those isolates which would give different meanings in different contexts. It may also be essential to write the meanings of synonymous words, since it would facilitate in the arrangement of the isolates.

## 24 Arrangement

Identification of Quasi Isolates and determination

of their sequence, and arrangement of speciators within the different Quasi Isolates and assignment of notation is the next step to be followed. This would require a fairly good knowledge of the theory of library classification and a little practice in the design and development of depth schedules.

### 25 Writing the Schedule

After finalizing the arrangement of the Quasi Isolates and Speciators and assigning suitable notation, the schedule has to be neatly written in the sequence of increasing ordinal value of notation in each of the different schedules designed for the classification of subjects.

### 26 Preparation of Index

This involves the following types of work:

- 1 Writing terms in the schedule, with abbreviations of their appropriate fundamental categories, on separate slips of paper;
- 2 Alphabetization; and
- 3 Writing the index separately.

### 27 Examples for Testing the Schedule

A select number of entries — an assortment — are to be classified. An alphabetical subject index has to be prepared according to Chain Indexing for the examples.

## 3 CASE STUDY

The following table illustrates the work and time analysis for the design of a depth schedule for the compound subjects going with the Host Subject "Grinding Machine Production".



SN	Nature of Work	Quantity of work	Time taken
1	Selection of subject		3 days (9 hrs)
2	Identification of subject to be covered		15 days (30 hrs)
3	literature survey	250 trade catalogues + 30 periodicals	15 hrs
	Scanning and selection	100 articles & 250 trade catalogues	3.5 min/item
	Entry preparation	-do-	5 min/entry
	Writing isolates on slips (Average: 7 isolates per entry)	2500 from 350 entries	5 min/entry
7	Identification of Quasi Isolates and determination of their sequence	255 (QI)	28 hrs
8	Assignment of sectors (Notation)		3 hrs
9	Arrangement of speciators (including arrangement of organs of removes 1 and 2)	1200 speciators under 255 (QI)	18 hrs
10	Assignment of rotation (including assignment of notation for organs of removes 1 and 2)		4 hrs
11	Writing the schedule		4 hrs
12	Preparation of slips	1500	10 hrs
13	Alphabetization		6 hrs
14	Writing		4 hrs
15	Classification	20 entries	5 hrs
16	Alphabetical subject index		8 hrs

SN	Mature of Fort	Quantity of work	Time taken
17	Alphabetisation ..		30 min
13	Writing ..		6 bra
19	Pinal checking for minor corrections		1 hr
		Total? Apprcx	255 hrs

#### 4 ANNOTATION

1 The time taken for identifying the coverage may be minimised, provided the person who designs the schedule, has some prior knowledge of the subject.

2 Identifying the Quasi Isolates, determining their sequence, arranging spectators end assipiing notation — the time taken for all these may look considerably low. The reason for this may be due to:

(a) Considerable knowledge in desiring depth schedules;

(b) Knowledge of the theory and practice of library classification; and

(c) Availability of a depth schedule or. almost a similar subject — Gopinath (M A) . Lathe production \* Depth classification version of CC (Lib so 3; 1971; Paper K).

3 Time taken for the index preparation for just 20 examples nay look too much. The reason for this is that the type of indexing adopted was the Key Word and Context (= KWAC), a version of chain indexing and because the preparation was done manually.

4 The time taken for consultation with the experts regarding the isolates selected and their

arrangements couldn't be quantified as it was spread throughout the course of the preparation of the schedule.

5 Since the structure of nascent subject is frequently liable to change on account of developments in the wave front of that subject, the classification system used for any documentation service will have to be kept up-to-date. This is a continuous process. The user's interaction over the same is also to be kept in view. This process cannot be quantified and therefore, the time factor cannot be determined.

## 5 CONCLUSION

It has been shown that the total time needed for designing depth schedule by a professional documentalist on Job is only 235 hours. The work cannot be counted as a day-to-day affair. It may be spread over months. But continuity has to be maintained. By this process, several manhours can be saved, as otherwise the work of a documentalist in a service centre gets stranded many a time for want of a schedule. Further, the centres which are solely responsible for developing schedules may not give priority for the subjects for which a local documentation centre needs a schedule. They may, on the other hand, extend active participation and cooperation with the particular documentation centre in designing the much needed schedules. Besides this, the designing of depth schedules in a service library provides enough scope for the continuing education of documentalists. Therefore, it is suggested that a draft plan for the establishment or development of library and documentation systems should provide for a cell for developmental research in the

field of library science and documentation.

I am indebted to Shri S Seetharama and Shri M A Gopinath of DRIC for their valuable guidance in the preparation of this paper. I am also thankful to Shri Abdul Rahman, Documentation Officer, Central Machine Tool Institute, Bangalore, for his valuable suggestions and for permitting me to present this paper for the seminar.

#### 7 BIBLIOGRAPHICAL REFERENCES

- 1 Sec 04, BHATTACHARYYA (G). Towards an integrated theory of notational language. (Lib sc. 10; 1973; Paper U).
- 2 Sec 01 RANGANATHAN (S R). What of documentation. (In Ranganathan (S R), Ed. Documentation and its facets. 1963. Chap B2).