CHAPTER V

RESEARCH DESIGN

This Chapter aims at giving the blue-print or an overall plan of research intended to yield specific and unambiguous answers to the questions posed in Chapter III. Such a plan or research design is an integral part of any organized research. It has the following functions:

i. It adapts general procedures of any research method to suit a specific problem.

ii. It helps other researchers to replicate the study and verify the results.

iii. Other researchers can find the effect of some new development on the present problems without repeating the complete procedure, if they know the research design.

iv. The same method can be used by other researchers working on similar problems in some other subjects.

v. The research design and its presentation in a thesis adds reliability and validity to the findings.

Although Chapter IV indicates and justifies the choice of Content Analysis to be the research method, its procedures
have to be adapted to the specific objectives and the hypotheses posed in Chapter III. This is the essence of the research design.

The procedure of content analysis in relation to the present problem can be explained in terms of the following seven components of the research design:

A. Sampling
B. Data About each review
C. Categories
D. Directions
E. Measurements
F. Questions
G. Method of Data Collection

5.1 Sampling

As it is impossible to subject all the book reviews, appearing in all the periodicals on Library and Information Science, to the process of content analysis, it is necessary to choose a representative sample. In the case of content analysis, decisions have to be made regarding the sampling of:

(a) Titles of Periodicals;
(b) Issues of the Periodicals;
(c) The Relevant Content in the selected issues of the selected periodicals.
5.1.1. Titles of Periodicals

Titles of Periodicals have to be selected depending on the purpose of the study. Titles were rarely selected by random-sampling methods, in most cases, they were selected purposively.

Looking to the purpose of the study, only those periodicals that are in English language and which publish book reviews need to be considered. Accessibility of such periodicals is yet another practical factor. Further, the annual publications like Bowker Annual and Library Science Annual edited by Bohdan S. Wynar published by Libraries Unlimited were also excluded, though these give reviews of Library Science Books. This study considers periodicals with periodicity less than one year.

Library Association Record (LAR), Library Journal, Wilson Library Bulletin, College and Research Libraries (C&RL) and the Journal of Academic Librarianship are the five periodicals cited by Ray Prytherch to be the periodicals giving valuable book reviews. Of these two periodicals, viz., LAR, C&RL are selected without any hesitation.


2. Ray Prytherch, Sources of Information in Librarianship and Information Science 2nd ed p.140-141.
The Library Journal and the Wilson Library Bulletin do not contain much on Library Science books. These Journals give more reviews of general books. Journal of Academic Librarianship was excluded because it is a very new journal.

Susan Fisher's work brought five journals into focus. They are, Australian Library Journal, Australian Academic and Research Libraries, Library Association Record, The Journal of Librarianship and The Library Quarterly. Out of these five, the first two are excluded, for it is too difficult to have access to these periodicals. The LAR is already selected. The other two are added to the list of periodicals to be considered for the study.

Serial Librarians, Journal of Documentation and Index Library Association Bulletin are added to get a total of seven periodicals. Many other periodicals were not considered for the study because of the following reasons.

1. Those gave less than ten relevant reviews per year during the three years, 1986, 1987 and 1988.

2. Journals brought out by commercial publishers were also excluded.

These periodicals can be stratified based on four criteria:

1. By ownership, i.e., published by professional associations or by schools of librarianship.

2. By treatment of the subject content, general or specialised.

3. By the countries of their origin, UK, USA and India.

4. By periodicity: Monthly (M), bi-monthly (BM) and quarterly (Q).

5.1.2: Issues of the Periodicals

Sampling of the issues is more relevant if daily newspapers are to be analysed or if the period to be covered is of several years. The present study of book reviews appearing in seven periodicals can be restricted to one complete year, viz. 1988. This gives the latest state-of-the-art. Nearly 250 reviews will be subjected to the process of content analysis. This sample size is expected to increase precision as it is further stratified as indicated in the previous page.

Also, the sample size seems to be adequate for the following reasons.

1. Book reviews are a fairly homogeneous class of writings, with the same intended effect of introducing and evaluating new books.
ii. Any larger sample would not make results any better because the reviews pass through the same set of editors, governed by same editorial policies, which are characteristics of each of the selected periodicals.

iii. The objective of the study is only to know about book reviews as a form of writing, and also to know librarians' way of doing it.

5.1.3 Relevant Content

In the case of book reviews the entire review is considered as the relevant content or a sampled unit for coding. All the reviews of books on library and information science appearing in the selected periodicals during 1988 are relevant. However, as indicated on page 32-33 reviews of Journals and general reference books in these periodicals are excluded. Books on areas such as copyright, reprography which are related to Librarianship are included.

5.2. Data about Each Review

After sampling, it is necessary to decide what exactly is the data to be collected in the light of the stated objectives and hypotheses. The data is to be collected under two heads:

(a) General Information about each review

(b) Description and evaluation in the review.
5.2.1. General Description

General information required about each review include name and status of the reviewer and the subject of the book. These were recorded on a 5" x 3" card. The bibliographic details of the book being reviewed and the nature of the subject were written on one side of the card. Details about the reviewer, such as name and status were written on the other side.

5.2.1.1. Status of the Reviewer

The term status is not clear. Although status may mean several things, profession of the reviewer is the only concern of the present study. Therefore only two categories of status are identified. Each reviewer is either a teacher (T) of the profession or a practitioner (P). There are certain persons who work for the professional bodies. Even such people are considered as practitioners. Retired persons are grouped depending on their occupation before retirement. A retired professor is considered as a teacher and a retired Librarian, a practitioner. These details are available at the end of each review. The unsigned reviews are not to be seen in any of these periodicals.

5.2.1.2. Bibliographic Details

Besides author's name, title, edition and imprint the month and year of publication of each book and the corresponding review are recorded to find the exact time...
lag in the appearance of the review. Such details are to be obtained from reference sources because these are not available in the review. Whittaker's Book Bank available on CD-ROM at the British Council, Bombay is an ideal source that gives months of publication.

5.2.1.3 Subject of the Book

Besides these, the subject of the book being reviewed is given a code. The purpose of noting such a subject code was to know how a reviewer looks at the newly emerging subjects in comparison with the conventional subjects. But this is a very tricky area. Thus, after going through the Schedules of Dewey Decimal Classification 19th ed and Colson Classification 7th ed. for Library Science, followed by hours of thinking the following three groups of subjects are identified.

1) Those subjects which depend on or contribute to the concept of resource sharing among libraries are denoted by letter P. In other words, all those concepts which emerge out of resource sharing, or those which are helping and accelerating resource sharing form a group. This group of subjects would include computerization, networking, databases, reprography, micrography, copyright, PLR, etc. In other words, these are modern subjects.
(i) The conventional subjects like public libraries, academic libraries, classification, cataloguing etc. are in group P.

(iii) There is a third group P/Q which includes books with a blend of subjects belonging to P and Q such as, computerization of public libraries, collection development in US Libraries, etc. This group also includes comparatively newer subjects like non-book materials, user education, etc.

It is not out of place to say that this mode of grouping is triggered by the definition of modern physics. Modern Physics is considered to be the branch of physics that is developed based on the fact that atom is divisible. Similarly, the concept of resource sharing has dramatically changed Librarianship, and hence it is considered to be a line of demarcation between modern librarianship and the conventional.

The purpose of this grouping is not to classify the books. It is only to find out if the reviewers are soft peddling with the newer subjects and are more critical of the conventional subjects. Also, it helps to find if the time lag varies for these three subject groups.

5.2.2. Description and Evaluation in the Reviews

From these general details, the next move is towards description and evaluation which are covered by categories.
and directions of the contents forming parts of the data sheet. Those are not prepared as sub-sections, but as the following two major sections: categories and direction of the book reviews. These two form the backbone of the present study.

§ 3. Categories

A category is the name given to any class of things, actions or relationships which recur with sufficient (relative), uniformity and frequency.

A scheme of categories, and assigning the contents of communication into these categories is the core activity of content analysis. "No content analysis is better than its categories, for a system or set of categories is, in essence, a conceptual scheme whose categories are in fact variables, they are linked to the problem and theories on which the research is based. Further, categories differentials and describe the content being investigated and form a crucial link between actual counting or measuring and larger fields of theory and concepts. Categories are not mere labels, but compartments with explicitly defined boundaries into which material is grouped for analysis."

4. Budd, Content Analysis of Communication, p. 39
Categories have to be based on the following few principles:

1. Categories have to relate to the problem.
2. They have to be exhaustive and elaborate to reduce coder's bias and confusion.
3. Categories have to be mutually exclusive.

A close look at the objectives and the hypotheses (p. 36) suggest that frequently occurring characteristics of description and evaluation have to be identified. Further, the second hypothesis states that descriptions of books in reviews are influenced by the art of writing of abstracts. Therefore, 43 extensive and mutually exclusive categories were mainly identified based on the following two documents:

1. ISO 714:1976 (E) Documentaion - Abstracts for Publication (a standard for writing abstracts)


Some criteria out of these 43 categories such as headline, etc. are added based on personal experience. These assorted criteria were arranged in a logical order. (Please see Data Sheet as Table 1 on p. 69).

These categories do not need any scope note as these are self-explanatory and stand on their own. However, some
### TABLE 1
CONTENT CATEGORIES

<table>
<thead>
<tr>
<th>A. HEADLINE</th>
<th>B. PEOPLE</th>
<th>D.V.T.E.J</th>
<th>D.V.T.E.J</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Columns</td>
<td>1. Author's Qualification</td>
<td>22. Novelty</td>
<td></td>
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<tr>
<td></td>
<td>2. Author's Experience</td>
<td>23. Up-to-dateness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Worked Other books by the author</td>
<td>24. Any other relevant aspect (specify)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Publication</td>
<td>25. Any other irrelevant aspect (specify)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Conclusion/Summary</td>
<td>F. TREATMENT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Objective (Scope)</td>
<td>26. Type of Document</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Meeting Objective</td>
<td>27. Plan/Organization of arrangement of thoughts</td>
<td></td>
</tr>
<tr>
<td>B. CONTEXT</td>
<td>9. Background</td>
<td>29. View-Point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Blending (based on earlier ad etc)</td>
<td>30. Length</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Complete Picture of Theme</td>
<td>31. Support Materials if any</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Method</td>
<td>33. Language wrt. 28 &amp; 6</td>
<td></td>
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<tr>
<td></td>
<td>14. Results</td>
<td>34. Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15. Conclusion</td>
<td>35. Index</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16. Conclusion</td>
<td>G. PHYSICAL SET-UP</td>
<td></td>
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<tr>
<td></td>
<td>17. Worked other books on the subject</td>
<td>36. Other forms (Audio/Video etc)</td>
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<tr>
<td></td>
<td>18. Accuracy</td>
<td>37. Layout &amp; Legibility</td>
<td></td>
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<tr>
<td></td>
<td>19. Performance</td>
<td>38. Format Size/Pak etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20. Bibliography</td>
<td>39. Production Cover, Binding etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21. Revision</td>
<td>H. SUPPLEMENTARY FACTORS</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>40. Appendix</td>
<td></td>
</tr>
<tr>
<td>D. Description</td>
<td></td>
<td>41. Price</td>
<td></td>
</tr>
<tr>
<td>E. Evaluation</td>
<td></td>
<td>42. Foreword</td>
<td></td>
</tr>
<tr>
<td>J. Justification for Highly Unfavourable</td>
<td></td>
<td>43. Any other</td>
<td></td>
</tr>
<tr>
<td>T. Tense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Voice (Active or Passive)</td>
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</tbody>
</table>
5.4. Direction

Direction refers to the author's - in the present case reviewer's - attitude towards any of the categories. In other words, direction of content or communication, in case of reviews, is evaluation. This evaluation may be with respect to some of the categories identified or relevant to the general effect of reading the book under review.

Direction may be +ve or -ve depending on the attitude expressed being favourable or unfavourable. Besides, one can think of various intensities of these attitudes. Some reviews may be highly favourable, some may be mildly favourable...

Direction or attitude of reviewer towards any of these categories is measured on the following six-point scale:

1. Neutral (N) = D = Description
2. Highly Unfavourable (HU)
3. Unfavourable (U)
4. Balanced (B)
5. Favourable (F)
6. Highly Favourable (HF)

These are mainly to be determined by the context and
the language used by the reviewer. Superlatives and the words like disastrous, excellent etc help to determine extremes of unfavourableness and favourableness. Words like sensible, satisfying, good, lacks depth etc indicate just favourableness and unfavourableness.

Some of the attitudes expressed by reviewers have a blend of both favourableness and unfavourableness.

Example: ‘Strength lies in systematic description and weakness in narrowness of its concern’

- Alex Wilson


Such statements give a balanced evaluation. This refers to a zone of evaluation which is between favourable and unfavourable, has both elements and is represented by (B) on the direction scale.

However, balanced attitude should not be confused with neutral (N). In neutral attitude no evaluation is made, it merely describes. Therefore, all neutral statements are treated as descriptions or elements that help to introduce the hook.

In other words, neutral (N) attitudes of reviewers contribute to descriptions hence, it will be denoted by the letter (D) in the rest of this thesis (unless the reviews
have no evaluation at all, where it is still denoted as (N) and attitudes with reference to other five points on the direction scale, HU to HF, contribute to evaluation.

These 43 categories, coupled with the six-point scale (including the description) of direction of content, form the columns of the datasheet to give the nature of description and evaluation by identifying frequently occurring characteristics.

5. Measurements

Measurement is an important ingredient of any scientific method that leads to quantification. "It is assignment of numeric values to various characteristics of individuals, objects, or events through the use of a set of criteria." The process of assigning numerical value depends on the system of observation which is the scale of measurement.

Eg.: If temperature is the characteristic of an individual object to be measured, there are different scales of observation such as Centigrade (C) or Fahrenheit (F) etc. Numerical value assigned depends on the scale for the same characteristic.

5. Budd, *Content Analysis of Communications*, p 31
In other words, one may call it 100°C or 180°F. The scale gives repeatability and reliability to the measurement.

Fundamentally, there are four scales of measurements.

(1) Nominal Scale
(2) Ordinal Scale
(3) Interval Scale
(4) Ratio Scale

In the present research design, all the four types of measurements are included simultaneously.

5.5.1 Nominal Scale

Nominal Scale is represented by the 43 categories. It is also seen in the status of reviewers. This type of measurement only helps to describe certain characteristics, or categories by counting the frequency of assignment to the category.

There is no hierarchy or ordered structure in the nominal scale, i.e., one can not say some category is greater than or smaller than some other category. The central tendency of this scale is measured by mode.

5.5.2 Ordinal Scale

Ordinal scale measures the directions in the present research design. Here the object or categories not only differ as in the case of the nominal scale, but they stand
in a relative order. The 43 categories assume values ranging in the five point scale. One can think of relations like greater than or smaller than in the measurement of direction of content. In other words, Highly favourable > favourable > balanced > unfavourable > highly unfavourable. However, it is important to know that one cannot say how much ‘highly favourable’ is more than ‘favourable’. One can compare, but comparison cannot be quantified. This is the feature of ordinal scale.

5.5.3. Interval Scale

Here one can, not only, say which is greater or smaller, but also say how much greater or less than any particular value. But this scale does not have a zero or a starting point. In the present research design, the time lag between the date of publication of a book and its review is measured on the ratio scale. Most of the arithmetical operations are used in these scales and the central tendency is measured by mean.

5.5.4 Ratio Scale

Here one can measure the magnitude of difference, and there is a zero of the scale. Assertion counts in this study are the examples of this scale.

5.5.5. Assertion Count

Further, since the first hypothesis is that there is more description than evaluation in reviews, it is necessary
to quantify the two. But, counting the number of words does not do any justice because some authors may drive home a point in the least number of words, while some others may elaborate. The other measures like column length also is of no use because different periodicals have different column width, and some periodicals do not have two or three columns and hence cannot be compared. Such measures are more useful for newspaper content.

So, it is decided to measure only the assertions of evaluation and descriptions. Assertion "is a single thought or idea unit that conveys a single item of information extracted from a segment of content. It could be a sentence, part of sentence or even a word.

Reader's Digest is a thought provoking, inspiring magazine.

This sentence with eight words has the following three assertions:

Reader's Digest is thought provoking.
Reader's Digest is inspiring.
Reader's Digest is a magazine.

These assertion counts will be used for proving or

disproving the hypothesis and this measurement is on ratio scale.

5.6. Questions

Studying book reviews by subjecting them to content analysis can be done in yet another way. In this process there are no categories, no directions, no assertion counts. Here a complete book review is to be viewed as a cohesive answer to a set of questions. This process is treated as supplementary to the other measurements.

This idea is an offshoot of reading John Drowry's Writing Book Reviews (1966). He has given guidance on how to review books in fields such as fiction, biography, history, poetry, social sciences, etc. For each of such fields, he has given a set of questions. Answer those questions, and the review is ready. Here is a similar attempt to consider a set of questions and to find out if these questions are answered in the review.

Those questions are derived from a set of twenty Questions given for evaluation of completed research. Some of these questions which are relevant for evaluation of books are picked up and the other questions are structured.

based on nature of the Library Science literature as given by Ray Prytherch. Further, these must be questions, considered independent of the 43 categories. However, there is some overlap.

eg.: Generally, all reviewers try to answer a question, "Is the method of research adequate?"

This question is covered by the category No 13 (See Table 2 p.78)

5.7. Method of Data Collection

The following are the steps taken in collecting data:

1. General information about the book and its reviewer for each review is recorded on the two sides of 5" x 3" cards. Bibliographical details are given at the beginning or end of the review. Status of the reviewer (found by other outside sources, if the review is silent about this issue A number which links the 5" x 3" card to the data sheet is recorded on the card. (eg J045 for 45th review in Journal of Documentation.) Further, these cards can be arranged by author, to know if the same book is reviewed in the other periodicals. Then, it can be arranged by the name of the reviewer to know if the same reviewer has reviewed more than one book.

### TABLE 2

**BOOK REVIEWS AS A COHESIVE ANSWER: QUESTIONS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong></td>
<td>Do the ideas expressed in the book indicate any change in the Library &amp; Information Science scene?</td>
</tr>
</tbody>
</table>
| **2.** | What type of changes are indicated?  
  a. Technical  
  b. Managerial  
  c. Ethical |
| **3.** | Is it an old theme?  
  Is the book contributing towards better understanding or newer interpretation of an old theme? |
| **4.** | Any influence of/on findings in the other subject areas or inventions? |
| **5.** | Is the method of research adequate? |
| **6.** | Do the results/conclusions agree with the accepted thinking about the subject?  
  If it deviates, how & why does it differ? |
| **7.** | What are the theoretical implications of the theme?  
  Is the author aware of it? |
| **8.** | Can the conclusions drawn in the book be generalised to a larger population?  
  (Any theoretical contributions?) |
| **9.** | Is it practicable? In what environment? |
| **10.** | Any other |
2. Content of communication is not only conveyed by the words but also context. For a word, the sentence where it appears is the context. For a sentence, paragraph is the context. For a paragraph, the entire article—in this case, the complete review—is the context.

eg: He alone could have written such a book.

One can know the clear meaning of such a sentence by knowing the context. It is, therefore, decided to read the complete review, and also to relate it to the nature of the periodical before actually analysing the content.

3. As a corollary to the context, each category of content is understood in relation to the objective or scope of the book and its intended readership. This is necessary to arrive at the direction of the evaluation.

eg: Book X gives fundamentals of subject Y.

This sentence is to be understood by knowing the scope and readership. If the author has written the book for students, then the expression amounts to a favourable comment. If the book is intended for senior professionals, the same sentence is considered, unfavourable.

4. Content of each review is assigned into the relevant categories and directions along with the number of assertions recorded in brackets, while reading the review for the second time.
Also the voice—active or passive—and tense of the sentences are noted in the respective columns. This is done because voice and tense suggest the nature—indicative or informative—of abstracting or description, if any.

5. Items of description and evaluation are counted and entered on the data-sheet. Similarly, assertions are counted and added under the two headings, viz. Description and Evaluation.

6. The review is read for the third time, to find if the review answers the questions given in Table 2. The questions that were answered by the review, were ticked.

7. Once again, steps 1-6 are checked to see that no error has crept in interpreting the content of the review.

These steps are repeated for each of the reviews in the sample.

Data collected from the reviews appearing in the seven selected periodicals of 1988 are placed in relevant categories, directions etc. on the respective data-sheets. A total of 257 data sheets are ready for analysis.