REPORT WRITING AND PRESENTATION RESULTS

1. Describe the interpretation of data in research methodology.

Interpretation of data refers to the task of drawing inferences from the collected facts after an analytical and/or experimental study. In fact, it is a search for broader meaning of research findings. The task of interpretation has two major aspects viz.,

i. the effort to establish continuity in research through linking the results of a given study with those of another, and
ii. the establishment of some explanatory concepts.

"In one sense, interpretation is concerned with relationships within the collected data, partially overlapping analysis. Interpretation also extends beyond the data of the study to include the results of other research, theory and hypotheses."1 Thus, interpretation is the device through which the factors that seem to explain what has been observed by researcher in the course of the study can be better understood and it also provides a theoretical conception which can serve as a guide for further researches.

2. Describe the techniques Interpretation of Results in Research Methodology

The task of interpretation is not an easy job, rather it requires a great skill and dexterity on the part of researcher. Interpretation is an art that one learns through practice and experience. The researcher may, at times, seek the guidance from experts for accomplishing the task of interpretation. The technique of interpretation often involves the following steps:

i. Researcher must give reasonable explanations of the relations which he has found and he must interpret the lines of relationship in terms of the underlying processes and must try to find out the thread of uniformity that lies under the surface layer of his diversified research findings. In fact, this is the technique of how generalization should be done and concepts be formulated.

ii. Extraneous information, if collected during the study, must be considered while interpreting the final results of research study, for it may prove to be a key factor in understanding the problem under consideration.

iii. It is advisable, before embarking upon final interpretation, to consult someone having insight into the study and who is frank and honest and will not hesitate to point out omissions and errors in logical argumentation. Such a consultation will result in correct interpretation and, thus, will enhance the utility of research results.

iv. Researcher must accomplish the task of interpretation only after considering all relevant factors affecting the problem to avoid false generalization. He must be in no hurry while interpreting results, for quite often the conclusions, which appear to be all right at the beginning, may not at all be accurate.

3. What is the meaning and significance of report in Research?

The meaning and significance of Research report is considered a major component of the research study for the research task remains incomplete till the report has been presented and/or written. As a matter of fact even the most brilliant hypothesis, highly well designed and conducted research study, and the most striking generalizations and findings are of little value unless they are effectively communicated to others. The purpose of research is not well

served unless the findings are made known to others. Research results must invariably enter the general store of knowledge. All this explains the significance of writing research report. There are people who do not consider writing of report as an integral part of the research process. But the general opinion is in favour of treating the presentation of research results or the writing of report as part and parcel of the research project. Writing of report is the last step in a research study and requires a set of skills somewhat different from those called for in respect of the earlier stages of research. This task should be accomplished by the researcher with utmost care; he may seek the assistance and guidance of experts for the purpose.

4. Describe the Steps in Report Writing in Research Methodology

Research reports are the product of slow, painstaking, accurate inductive work. The usual steps involved in writing report are:

a) logical analysis of the subject-matter;
b) preparation of the final outline;
c) preparation of the rough draft;
d) rewriting and polishing;
e) preparation of the final bibliography; and
f) writing the final draft.

Though all these steps are self explanatory, yet a brief mention of each one of these will be appropriate for better understanding.

Logical analysis of the subject matter: It is the first step which is primarily concerned with the development of a subject. There are two ways in which to develop a subject
a) logically and
b) chronologically.

The logical development is made on the basis of mental connections and associations between the one thing and another by means of analysis. Logical treatment often consists in developing the material from the simple possible to the most complex structures. Chronological development is based on a connection or sequence in time or occurrence. The directions for doing or making something usually follow the chronological order.

Preparation of the final outline: It is the next step in writing the research report "Outlines are the framework upon which long written works are constructed. They are an aid to the logical organization of the material and a reminder of the points to be stressed in the report."

Preparation of the rough draft: This follows the logical analysis of the subject and the preparation of the final outline. Such a step is of utmost importance for the researcher now sits to write down what he has done in the context of his research study. He will write down the procedure adopted by him in collecting the material for his study along with various limitations faced by him, the technique of analysis adopted by him, the broad findings and generalizations and the various suggestions he wants to offer regarding the problem concerned.

Rewriting and polishing of the rough draft: This step happens to be most difficult part of all formal writing. Usually this step requires more time than the writing of the rough draft. The careful revision makes the difference between a mediocre and a good piece of writing. While rewriting and polishing, one should check the report for weaknesses in logical development or presentation. The researcher should also "see whether or not the material, as it is presented, has unity and cohesion; does the report stand upright and firm and exhibit a definite pattern, like a marble arch? Or does it resemble an old wall of moldering cement and loose brick." In addition the researcher should give due attention to the fact that in his rough draft he has been consistent or not. He should check the mechanics of writing— grammar, spelling and usage.

Preparation of the final bibliography: Next in order comes the task of the preparation of the final bibliography. The bibliography, which is generally appended to the research report, is a list of books in some way pertinent to the research which has been done. It should contain all those works which the researcher has consulted. The bibliography should be arranged alphabetically and may be divided into two parts; the first part may contain the names of books and pamphlets, and the second part may contain the names of magazine and newspaper articles. Generally, this pattern of bibliography is considered convenient and satisfactory from the point of view of reader, though it is not the only way of presenting bibliography. The entries in bibliography should be made adopting the following order:

For books and pamphlets the order may be as under:
[1]. Name of author, last name first.
[2]. Title, underlined to indicate italics.
[3]. Place, publisher, and date of publication.
[4]. Number of volumes.

Example

Kothari, C.R., *Quantitative Techniques,* New Delhi, Vikas Publishing House Pvt. Ltd., 1978.

For magazines and newspapers the order may be as under:
[1]. Name of the author, last name first.
[2]. Title of article, in quotation marks.
[3]. Name of periodical, underlined to indicate italics.
[4]. The volume or volume and number.
[5]. The date of the issue.
[6]. The pagination.

Example

Robert V. Roosa, "Coping with Short-term International Money Flows", *The Banker,* London, September, 1971, p. 995.

The above examples are just the samples for bibliography entries and may be used, but one should also remember that they are not the only acceptable forms. The only thing important is that, whatever method one selects, it must remain consistent.

Writing the final draft: This constitutes the last step. The final draft should be written in a concise and objective style and in simple language, avoiding vague expressions such as "it seems", "there may be", and the like ones. While writing the final draft, the researcher must avoid abstract terminology and technical jargon. Illustrations and examples based on common experiences must be incorporated in the final draft as they happen to be most effective in communicating the research findings to others. A research report should not be dull, but must enthuse people and maintain interest and must show originality. It must be remembered that every report should be an attempt to solve some intellectual problem and must contribute to the solution of a problem and must add to the knowledge of both the researcher and the reader.

5. Describe the different types of research report.

Research reports vary greatly in length and type. In each individual case, both the length and the form are largely dictated by the problems at hand. For instance, business firms prefer reports in the letter form, just one or two pages in length. Banks, insurance organisations and financial institutions are generally fond of the short balance-sheet type of tabulation for their annual reports to their customers and shareholders. Mathematicians prefer to write the results of their investigations in the form of algebraic notations. Chemists report their results in symbols and formulae. Students of literature usually write long reports presenting the critical analysis of some writer or period or the like with a liberal use of quotations from the works of the author under discussion. In the field of education and psychology, the

favourite form is the report on the results of experimentation accompanied by the detailed statistical tabulations. Clinical psychologists and social pathologists frequently find it necessary to make use of the case-history form.

News items in the daily papers are also forms of report writing. They represent firsthand on-thescene accounts of the events described or compilations of interviews with persons who were on the scene. In such reports the first paragraph usually contains the important information in detail and the succeeding paragraphs contain material which is progressively less and less important.

Book-reviews which analyze the content of the book and report on the author's intentions, his success or failure in achieving his aims, his language, his style, scholarship, bias or his point of view. Such reviews also happen to be a kind of short report. The reports prepared by governmental bureaus, special commissions, and similar other organisations are generally very comprehensive reports on the issues involved. Such reports are usually considered as important research products. Similarly, Ph.D. theses and dissertations are also a form of report-writing, usually completed by students in academic institutions.

The above narration throws light on the fact that the results of a research investigation can be presented in a number of ways viz., a technical report, a popular report, an article, a monograph or at times even in the form of oral presentation. Which method(s) of presentation to be used in a particular study depends on the circumstances under which the study arose and the nature of the results. A *technical report* is used whenever a full written report of the study is required whether for recordkeeping or for public dissemination. A *popular report* is used if the research results have policy implications. We give below a few details about the said two types of reports:

Technical Report

In the technical report the main emphasis is on

I. the methods employed,
II. assumptions made in the course of the study,
III. the detailed presentation of the findings including their limitations and supporting data.

A general outline of a technical report can be as follows:

1) *Summary of results:* A brief review of the main findings just in two or three pages.
2) *Nature of the study:* Description of the general objectives of study, formulation of the problem in operational terms, the working hypothesis, the type of analysis and data required, etc.
3) *Methods employed:* Specific methods used in the study and their limitations. For instance, in sampling studies we should give details of sample design viz., sample size, sample selection, etc.
4) *Data:* Discussion of data collected, their sources, characteristics and limitations. If secondary data are used, their suitability to the problem at hand be fully assessed. In case of a survey, the manner in which data were collected should be fully described.
5) *Analysis of data and presentation of findings:* The analysis of data and presentation of the findings of the study with supporting data in the form of tables and charts be fully narrated. This, in fact, happens to be the main body of the report usually extending over several chapters.
6) *Conclusions:* A detailed summary of the findings and the policy implications drawn from the results be explained.
7) *Bibliography:* Bibliography of various sources consulted be prepared and attached.
8) *Technical appendices:* Appendices be given for all technical matters relating to questionnaire, mathematical derivations, elaboration on particular technique of analysis and the like ones.
9) *Index:* Index must be prepared and be given invariably in the report at the end.

The order presented above only gives a general idea of the nature of a technical report; the order of presentation may not necessarily be the same in all the technical reports. This, in other words, means that the presentation may vary in different reports; even the different sections outlined above will not always be the same, nor will all these sections appear in any particular report.

It should, however, be remembered that even in a technical report, simple presentation and ready availability of the findings remain an important consideration and as such the liberal use of charts and diagrams is considered desirable.

Popular Report

The popular report is one which gives emphasis on simplicity and attractiveness. The simplification should be sought through clear writing, minimization of technical, particularly mathematical, details and liberal use of charts and diagrams. Attractive layout along with large print, many subheadings, even an occasional cartoon now and then is another characteristic feature of the popular report. Besides, in such a report emphasis is given on practical aspects and policy implications. We give below a general outline of a popular report.

[1]. *The findings and their implications:* Emphasis in the report is given on the findings of most practical interest and on the implications of these findings.

[2]. *Recommendations for action:* Recommendations for action on the basis of the findings of the study is made in this section of the report.

[3]. *Objective of the study:* A general review of how the problem arise is presented along with the specific objectives of the project under study.

[4]. *Methods employed:* A brief and non-technical description of the methods and techniques used, including a short review of the data on which the study is based, is given in this part of the report.

[5]. *Results:* This section constitutes the main body of the report wherein the results of the study are presented in clear and non-technical terms with liberal use of all sorts of illustrations such as charts, diagrams and the like ones.

[6]. *Technical appendices:* More detailed information on methods used, forms, etc. is presented in the form of appendices. But the appendices are often not detailed if the report is entirely meant for general public.

There can be several variations of the form in which a popular report can be prepared. The only important thing about such a report is that it gives emphasis on simplicity and policy implications from the operational point of view, avoiding the technical details of all sorts to the extent possible.

6. Evaluate the Research report layout in Research Methodology

The Research report layout must necessarily be conveyed enough about the study so that he can place it in its general scientific context, judge the adequacy of its methods and thus form an opinion of how seriously the findings are to be taken. For this purpose there is the need of proper layout of the report. The layout of the report means as to what the research report should contain. A comprehensive layout of the research report should comprise preliminary pages, the main text and the end matter. Let us deal with them separately.

Preliminary Pages

In its preliminary pages the report should carry a *title and date,* followed by acknowledgements in the form of 'Preface' or 'Foreword'. Then there should be a *table of contents* followed by *list of tables and illustrations* so that the decision-maker or anybody interested in reading the report can easily locate the required information in the report.

Main Text

The main text provides the complete outline of the research report along with all details. Title of the research study is repeated at the top of the first page of the main text and then follows the other details on pages numbered consecutively, beginning with the second page. Each main section of the report should begin on a new page. The main text of the report should have the following sections:

[1]. Introduction
[2]. Statement of findings and recommendations

[3]. The results
[4]. The implications drawn from the results; and
[5]. The summary.

1. Introduction: The purpose of introduction is to introduce the research project to the readers. It should contain a clear statement of the objectives of research i.e., enough background should be given to make clear to the reader why the problem was considered worth investigating. A brief summary of other relevant research may also be stated so that the present study can be seen in that context. The hypotheses of study, if any, and the definitions of the major concepts employed in the study should be explicitly stated in the introduction of the report.

The methodology adopted in conducting the study must be fully explained. The scientific reader would like to know in detail about such thing: How was the study carried out? What was its basic design? If the study was an experimental one, then what were the experimental manipulations? If the data were collected by means of questionnaires or interviews, then exactly what questions were asked (The questionnaire or interview schedule is usually given in an appendix)? If measurements were based on observation, then what instructions were given to the observers? Regarding the sample used in the study the reader should be told: Who were the subjects? How many were there? How were they selected? All these questions are crucial for estimating the probable limits of generalizability of the findings. The statistical analysis adopted must also be clearly stated. In addition to all this, the scope of the study should be stated and the boundary lines be demarcated. The various limitations, under which the research project was completed, must also be narrated.

2. *Statement of findings and recommendations:* After introduction, the research report must contain a statement of findings and recommendations in non-technical language so that it can be easily understood by all concerned. If the findings happen to be extensive, at this point they should be put in the summarised form.

3. Results: A detailed presentation of the findings of the study, with supporting data in the form of tables and charts together with a validation of results, is the next step in writing the main text of the report. This generally comprises the main body of the report, extending over several chapters. The result section of the report should contain statistical summaries and reductions of the data rather than the raw data. All the results should be presented in logical sequence and splitted into readily identifiable sections. All relevant results must find a place in the report. But how one is to decide about what is relevant is the basic question. Quite often guidance comes primarily from the research problem and from the hypotheses, if any, with which the study was concerned. But ultimately the researcher must rely on his own judgement in deciding the outline of his report. "Nevertheless, it is still necessary that he states clearly the problem with which he was concerned, the procedure by which he worked on the problem, the conclusions at which he arrived, and the bases for his conclusions.

4. Implications of the results: Toward the end of the main text, the researcher should again put down the results of his research clearly and precisely. He should, state the implications that flow from the results of the study, for the general reader is interested in the implications for understanding the human behaviour. Such implications may have three aspects as stated below:

- A statement of the inferences drawn from the present study which may be expected to apply in similar circumstances.
- The conditions of the present study which may limit the extent of legitimate generalizations of the inferences drawn from the study.
- The relevant questions that still remain unanswered or new questions raised by the study along with suggestions for the kind of research that would provide answers for them. It is considered a good practice to finish the report with a short conclusion which summarises and recapitulates the main points of the study. The conclusion drawn from the study should be clearly related to the hypotheses that were stated in the introductory section. At the same time, a forecast of the probable future of the subject and an indication of the kind of research which needs to be done in that particular field is useful and desirable.

5. Summary: It has become customary to conclude the research report with a very brief summary, resting in brief the research problem, the methodology, the major findings and the major conclusions drawn from the research results.

End Matter

At the end of the report, appendices should be enlisted in respect of all technical data such as questionnaires, sample information, mathematical derivations and the like ones. Bibliography of sources consulted should also be given. Index (an alphabetical listing of names, places and topics along with the numbers of the pages in a book or report on which they are mentioned or discussed) should invariably be given at the end of the report. The value of index lies in the fact that it works as a guide to the reader for the contents in the report.

7. Write down the mechanism of writing research report.

There are very definite and set rules which should be followed in the actual preparation of the research report or paper. Once the techniques are finally decided, they should be scrupulously adhered to, and no deviation permitted. The criteria of format should be decided as soon as the materials for the research paper have been assembled. The following points deserve mention so far as the mechanics of writing a report are concerned:

[1]. ***Size and physical design:*** The manuscript should be written on unruled paper $81/2 \times 11$in size. If it is to be written by hand, then black or blue-black ink should be used. A margin of at least one and one-half inches should be allowed at the left hand and of at least half an inch at the right hand of the paper. There should also be one-inch margins, top and bottom. The paper should be neat and legible. If the manuscript is to be typed, then all typing should be double-spaced on one side of the page only except for the insertion of the long quotations.

[2]. ***Procedure:*** Various steps in writing the report should be strictly adhered (All such steps have already been explained earlier in this chapter).

[3]. ***Layout:*** Keeping in view the objective and nature of the problem, the layout of the report should be thought of and decided and accordingly adopted (The layout of the research report and various types of reports have been described in this chapter earlier which should be taken as a guide for report-writing in case of a particular problem).

[4]. ***Treatment of quotations:*** Quotations should be placed in quotation marks and double spaced, forming an immediate part of the text. But if a quotation is of a considerable length (more than four or five type written lines) then it should be single-spaced and indented at least half an inch to the right of the normal text margin.

[5]. ***The footnotes:*** Regarding footnotes one should keep in view the followings:

- The footnotes serve two purposes viz., the identification of materials used in quotations in the report and the notice of materials not immediately necessary to the body of the research text but still of supplemental value. In other words, footnotes are meant for cross references, citation of authorities and sources, acknowledgement and elucidation or explanation of a point of view. It should always be kept in view that footnote is not an end nor a means of the display of scholarship. The modern tendency is to make the minimum use of footnotes for scholarship does not need to be displayed.

- Footnotes are placed at the bottom of the page on which the reference or quotation which they identify or supplement ends. Footnotes are customarily separated from the textual material by a space of half an inch and a line about one and a half inches long.

- Footnotes should be numbered consecutively, usually beginning with 1 in each chapter separately. The number should be put slightly above the line, say at the end of a quotation. At the foot of the page, again, the footnote number should be indented and typed a little above the line. Thus, consecutive numbers must be used to correlate the reference in the text with its corresponding note at the bottom of the page, except in case of statistical tables and other numerical material, where symbols such as the asterisk (*) or the like one may be used to prevent confusion.

- Footnotes are always typed in single space though they are divided from one another by double space.

[6}. Documentation style: Regarding documentation, the first footnote reference to any given work should be complete in its documentation, giving all the essential facts about the edition used. Such documentary footnotes follow a general sequence. The common order may be described as under:

[1]. ***Regarding the single-volume reference***
1. Author's name in normal order (and not beginning with the last name as in a bibliography) followed by a comma;
2. Title of work, underlined to indicate italics;
3. Place and date of publication;
4. Pagination references (The page number).

Example

John Gassner, *Masters of the Drama,* New York: Dover Publications, Inc. 1954, p. 315.
o ***Regarding multivolumed reference***
1. Author's name in the normal order;
2. Title of work, underlined to indicate italics;
3. Place and date of publication;
4. Number of volume;
5. Pagination references (The page number).
o ***Regarding works arranged alphabetically***

For works arranged alphabetically such as encyclopedias and dictionaries, no pagination reference is usually needed. In such cases the order is illustrated as under:

Example 1

"Salamanca," *Encyclopaedia Britannica,* 14th Edition.

Example 2

"Mary Wollstonecraft Godwin," *Dictionary of national biography.*

But if there should be a detailed reference to a long encyclopedia article, volume and pagination reference may be found necessary.

- ***Regarding periodicals reference***
  1. Name of the author in normal order;
  2. Title of article, in quotation marks;
  3. Name of periodical, underlined to indicate italics;
  4. Volume number;
  5. Date of issuance;
  6. Pagination.
- ***Regarding anthologies and collections reference*** Quotations from anthologies or collections of literary works must be acknowledged not only by author, but also by the name of the collector.

[2]. ***Regarding second-hand quotations reference***

In such cases the documentation should be handled as follows:

- Original author and title;
- "quoted or cited in,";
- Second author and work.

Example

J.F. Jones, *Life in Ploynesia,* p. 16, quoted in *History of the Pacific Ocean area,* by R.B. Abel, p. 191.

[3]. ***Case of multiple authorship***

If there are more than two authors or editors, then in the documentation the name of only the first given and the multiple authorship is indicated by "et al." or "and others". Subsequent references to the same work need not be so detailed as stated above. If the work is cited again without any other work intervening, it may be indicated as *ibid,* followed by a comma and the page number. A single page should be referred to as p., but more than one page be referred to as pp. If there are several pages referred to at a stretch, the practice is to use often the page number, for example, pp. 190ff, which means page number 190 and the following pages; but only for page 190 and the following page '190f'. Roman numerical is generally used to indicate the number of the volume of a book. Op. cit. (opera citato, in the work cited) or Loc. cit. (loco citato, in the place cited) are two of the very convenient abbreviations used in the footnotes. Op. cit. or Loc. cit. after the writer's name would suggest that the reference is to work by the writer which has been cited in detail in an earlier footnote but intervened by some other references.

[4]. ***Punctuation and abbreviations in footnotes:*** The first item after the number in the footnote is the author's name, given in the normal signature order. This is followed by a comma. After the comma, the title of the book is given: the article (such as "A", "An", "The" etc.) is omitted and only the first word and proper nouns and adjectives are capitalized. The title is followed by a comma. Information concerning the edition is given next. This entry is followed by a comma. The place of publication is then stated; it may be mentioned in an abbreviated form, if the place happens to be a famous one such as Lond. for London, N.Y. for New York, N.D. for New Delhi and so on. This entry is followed by a comma. Then the name of the publisher is mentioned and this entry is closed by a comma. It is followed by the date of publication if the date is given on the title page. If the date appears in the copyright notice on the reverse side of the title page or elsewhere in the volume, the comma should be omitted and the date enclosed in square brackets [c 1978], [1978]. The entry is followed by a comma. Then follow the volume and page references and are separated by a comma if both are given. A period closes the complete documentary reference. But one should remember that the documentation regarding acknowledgements from magazine articles and periodical literature follow a different form as stated earlier while explaining the entries in the bibliography.

Certain English and Latin abbreviations are quite often used in bibliographies and footnotes to eliminate tedious repetition. The following is a partial list of the most common abbreviations frequently used in report-writing (the researcher should learn to recognise them as well as he should learn to use them):

anon., anonymous

ante., before

art., article

aug., augmented

bk., book

bull., bulletin

cf., compare

ch., chapter

col., column

diss., dissertation

ed., editor, edition, edited.

ed. cit., edition cited

e.g., exempli gratia: for example

eng., enlarged

et.al., and others

et seq., et sequens: and the following

ex., example

f., ff., and the following

fig(s)., figure(s)

fn., footnote

ibid., ibidem: in the same place (when two or more successive footnotes refer to the same work, it is not necessary to repeat complete reference for the second footnote. Ibid. may be used. If different pages are referred to, pagination must be shown).

id., idem: the same

ill., illus., or

illust(s). illustrated, illustration(s)

Intro., intro., introduction

l, or *ll*, line(s)

loc. cit., in the place cited; used as op.cit., (when new reference

loco citato: is made to the same pagination as cited in the previous note)

MS., MSS., Manuscript or Manuscripts

N.B., nota bene: note well

n.d., no date

n.p., no place

no pub., no publisher

no(s)., number(s)

o.p., out of print

op. cit: in the work cited (If reference has been made to a work

opera citato and new reference is to be made, ibid., may be used, if intervening reference has been made to different works, op.cit. must be used. The name of the author must precede.

p. or pp., page(s)

passim: here and there

post: after

rev., revised

tr., trans., translator, translated, translation

vid or vide: see, refer to

viz., namely

vol. or vol(s)., volume(s)

vs., versus: against

[5]. *Use of statistics, charts and graphs:* A judicious use of statistics in research reports is often considered a virtue for it contributes a great deal towards the clarification and simplification of the material and research results. One may well remember that a good picture is often worth more than thousand words. Statistics are usually presented in the form of tables, charts, bars and line-graphs and pictograms. Such presentation should be self explanatory and complete in itself. It should be suitable and appropriate looking to the problem at hand. Finally, statistical presentation should be neat and attractive.

[6]. *The final draft:* Revising and rewriting the rough draft of the report should be done with great care before writing the final draft. For the purpose, the researcher should put to himself questions like: Are the sentences written in the report clear? Are they grammatically correct? Do they say what is meant'? Do the various points incorporated in the report fit together logically? "Having at least one colleague read the report just before the final revision is extremely helpful. Sentences that seem crystal-clear to the writer may prove quite confusing to other people; a connection that had seemed self evident may strike others as a *non-sequitur.* A friendly critic, by pointing out passages that seem unclear or illogical, and perhaps suggesting ways of remedying the difficulties, can be an invaluable aid in achieving the goal of adequate communication.

[7]. *Bibliography:* Bibliography should be prepared and appended to the research report as discussed earlier.

[8]. *Preparation of the index:* At the end of the report, an index should invariably be given, the value of which lies in the fact that it acts as a good guide, to the reader. Index may be prepared both as subject index and as author index. The former gives the names of the subject-topics or concepts along with the number of pages on which they have appeared or discussed in the report, whereas the latter gives the similar information regarding the names of authors. The index should always be arranged alphabetically. Some people prefer to prepare only one index common for names of authors, subject-topics, concepts and the like ones.

8. Note down the precaution for writing research report in social science.

Research report is a channel of communicating the research findings to the readers of the report. A good research report is one which does this task efficiently and effectively. As such it must be prepared keeping the following precautions in view:

[1]. While determining the length of the report (since research reports vary greatly in length), one should keep in view the fact that it should be long enough to cover the subject but short enough to maintain interest. In fact, report-writing should not be a means to learning more and more about less and less.

[2]. A research report should not, if this can be avoided, be dull; it should be such as to sustain reader's interest.

[3]. Abstract terminology and technical jargon should be avoided in a research report. The report should be able to convey the matter as simply as possible. This, in other words, means that report should be written in an objective style in simple language, avoiding expressions such as "it seems," "there may be" and the like.

[4]. Readers are often interested in acquiring a quick knowledge of the main findings and as such the report must provide a ready availability of the findings. For this purpose, charts, graphs and the statistical tables may be used for the various results in the main report in addition to the summary of important findings.

[5]. The layout of the report should be well thought out and must be appropriate and in accordance with the objective of the research problem.

[6]. The reports should be free from grammatical mistakes and must be prepared strictly in accordance with the techniques of composition of report-writing such as the use of quotations, footnotes, documentation, proper punctuation and use of abbreviations in footnotes and the like.

[7]. The report must present the logical analysis of the subject matter. It must reflect a structure wherein the different pieces of analysis relating to the research problem fit well.

[8]. A research report should show originality and should necessarily be an attempt to solve some intellectual problem. It must contribute to the solution of a problem and must add to the store of knowledge.

[9]. Towards the end, the report must also state the policy implications relating to the problem under consideration. It is usually considered desirable if the report makes a forecast of the probable future of the subject concerned and indicates the kinds of research still needs to be done in that particular field.

[10]. Appendices should be enlisted in respect of all the technical data in the report.

[11]. Bibliography of sources consulted is a must for a good report and must necessarily be given.

[12]. Index is also considered an essential part of a good report and as such must be prepared and appended at the end.

[13]. Report must be attractive in appearance, neat and clean, whether typed or printed.

[14]. Calculated confidence limits must be mentioned and the various constraints experienced in conducting the research study may also be stated in the report.

[15]. Objective of the study, the nature of the problem, the methods employed and the analysis techniques adopted must all be clearly stated in the beginning of the report in the form of introduction.

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