UNIT 14: RESEARCH REPORT WRITING

UNIT STRUCTURE

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14.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- discuss the concept and the importance of research report
- learn to write a Brief report
- learn to write Detailed report
- outline the structure of the research report
- discuss the formulation rules for writing the report
- describe the guidelines for presenting tabular data,
- describe the guidelines for visual Representations

14.2 INTRODUCTION

Report writing is very important in a reserach process.The purpose of writing a report is to convey the results or progress of research done.Writing of report is the last step in a research study and requires a set of skills. We will discuss the types of research reports, structure of the research report, formulation rules for writing the report.

We will also discuss the guidelines for presenting tabular data and Guidelines for visual Representations.

14.3 MEANING AND SIGNIFICANCE OF REPORT WRITING

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.

14.4 TYPES OF RESEARCH REPORTS

Reports can be broadly classified into two categories: brief report and detailed report.

14.4.1 Brief Research Reports

Brief reports are most often used by newspapers and other periodicals to share research or information about a currently trending topic or as an enhancement to a longer story. These reports are similar in structure to detailed reports, but without any concrete opinions or the drawing of conclusions by the author. Brief reports are essentially meant to inform the reader and provide the essential information about

a particular topic. Different components of a brief report are - Summary, Background, Purpose, Result and Conclusions.

Summary: The first part of a brief report is typically a short summary that names the main points of the research or topic being covering, followed by the names of author(s) and where they did their research. The summary serves as the introduction and usually includes no more than one to three sentences. Examples of appropriate summary sentences would be, “Those with a family history of mental illness and addiction are more likely to suffer from substance abuse than others. A recent study conducted by the National Institute of Mental Health found that those who had a family history of mental illness and addiction were 10 times more likely to become addicts themselves.”

Background: The next part of the brief report provides background to the statements made in the summary (introduction). Background information should include more details about the subject, why the study is important and the current state of the research. Example: “Researchers found that of the 200 students surveyed, 20 percent reported being exposed to drugs or alcohol before the age of 12 by a parent or other caregiver who had diagnosed mental illness and suffered from addiction.”

Purpose: The purpose of the study is to provide readers with reasons they should care about the information and to lend credibility to the research. Research must have a purpose in order to carry out the research. For example the summarisation can be written for the above study as: “The purpose of the study is to increase awareness of the effects of mental illness on society and to encourage those suffering to seek treatment.”

Results and Conclusion: Brief reports do not require the drawing of detailed conclusions as in the case of detailed reports. However, it requires to make a few writings as to why the research or study is important to the society. Using the results of these reports various measures can be taken to check the problem. Organizations can use these results to help increase community awareness about the

dangers of substance abuse and mental illness, as well as to provide assistance to those who are struggling.

14.4.2 Detailed Research Report

Research reports are the product of slow, painstaking, accurate inductive work. The research report is a means of communication that can be understood, believed, trusted by everyone who are likely to be affected by the research, and acted upon by the decision maker. Effective report writing is an art. Some basic points to note in writing a report includes:

Readers: The report should take into account the level of readers' technical sophistication, their interest in the project, ability to understand as well as the circumstances under which they will read the report and how they will use it.

Adherence to study objectives: A research report must show that the research objectives have been accomplished.

Easy to follow: The most basic characteristics of a good report is that it is easy to follow, well organised, logically structured and clearly and lucidly written.

Different Steps in Writing Report

(i) 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 logically and 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.

(ii) 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.

(iii) 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.

(iv) Rewriting and polishing: 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.

(v) 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:

(a) Name of author, last name first.

(b) Title, underlined to indicate italics.

(c) Place, publisher, and date of publication.

(d) 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:

(a) Name of the author, last name first.
(b) Title of article, in quotation marks.
(c) Name of periodical, underlined to indicate italics.
(d) The volume number and issue number.
(e) The date of the issue.
(f) The pagination.

Example:

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

(vi) Writing the Final Draft: 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", etc. While writing the final draft, the researcher must avoid abstract terminology and technical jargons. Finally, a report should not be dull, but must enthuse people and maintain interest and must show originality.

14.5 STRUCTURE OF THE RESEARCH REPORT

A comprehensive layout of the research report should comprise (a) Preliminary section, (b) the main report, and (c) the end matter.

(a) Preliminary section: The preliminary section comprise of *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 anybody can locate the required information in the report.

(b) Main Report: The main text provides the complete outline of the research report along with all details. Title of the research study is repeated at 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:

(i) Introduction: The purpose of introduction is to introduce the research project to the readers. It shoild contain a clear statement of the objectives of research. a brief summary of the other relevant 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 explicitlystated in the introduction of the report.

(ii) Research Methodology: In this section research methodology adopted in conducting the study must be fully explained. The statistical analysis applied must also be clearly stated. In addition to all these the scope of the study and limitations under which the project was completed must also be narrated.

(iii) Statement of Findings and Recommendations: In this section findings and recommendations in non-technical language must be included so that it can be understood by all concerned.

(iv) 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.

(v) Implications of the Results: Towards 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.

(v) 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 main conclusions drawn from the research results.



CHECK YOUR PROGRESS

Q.1: What are the components of main report?

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Q.2. Give an example of preparing bibliography.

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Q.3. Illustrate the steps of writing a research report.

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14.6 REPORT WRITING: FORMULATION RULES FOR WRITING REPORT

There are very definite and set rules which should be followed in the actual preparation of the research report.

Size and physical design: The manuscript should be written/typed on unruled paper. A margin of at least one inch should be allowed at both hands, 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.

Procedure: Various steps in writing the report should be strictly adhered.

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.

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.

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.

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.

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. 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.

The final draft: Revising and rewriting the rough draft of the report should be done with great care before writing the final draft.

Bibliography: Bibliography should be prepared and appended to the research report as discussed earlier.

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.

14.7 GUIDELINES FOR PRESENTING TABULAR DATA

Tables, charts, and graphs are often used to report data and statistics. Each of these three graphic devices conveys information by showing

1) values
2) labels and
3) context.

Values are data; they may be numbers, symbols, or text. Values by themselves are meaningless: 120, +, or “mild,” for example. Thus, they must be accompanied by labels. *Labels* identify the values and often add additional characteristics: in the above examples, a mean systolic pressure of 120 mm Hg; a positive diagnostic test result; and “mild” symptoms of Alzheimer’s disease. Even values with labels, however, are meaningless in the absence of a larger context, such as a specific research project.

Context is the background against which values and labels should be interpreted. To continue the above example, a mean systolic pressure of 120 mm Hg might be the therapeutic endpoint for patients with hypertension; a positive diagnostic test result might define a subgroup of patients with comorbidities (the presence of one or more additional disorders); and “mild” symptoms of Alzheimer’s disease might be an inclusion criterion in a drug study. In tables, charts, and graphs, the context should be identified in the titles or captions, as well as be apparent from the larger document.

14.8 GUIDELINES FOR VISUAL REPRESENTATIONS

At times oral or visual presentation of the results of the study is effective, particularly in cases where policy recommendations are indicated by project results. The merit of this approach lies in the fact that it provides an opportunity for give-and-take decisions which generally lead to a better understanding of the findings and their implications.

Visual presentation is effective when supplemented by various visual devices. Use of slides, wall charts and boards is quite helpful in contributing to clarity and in reducing the boredom, if any. Distributing a board outline, with a few important tables and charts concerning the research results, makes the listeners attentive who have a ready outline on which to focus their thinking. This very often happens in academic institutions where the researcher discusses his research findings and policy implications with either in a seminar or a group discussion.



14.9 LET US SUM UP

- 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.
- 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.
- Reports can be broadly classified into two categories: brief report and detailed report.
- Different steps in writing report involve:
  - (i) Logical analysis of the subject-matter
  - (ii) Preparation of the final outline
  - (iii) Preparation of the rough draft
  - (iv) Rewriting and polishing
  - (v) Preparation of the final bibliography
  - (vi) Writing the Final Draft
- A comprehensive layout of the research report should comprise
  (a) Preliminary section,
  (b) the main report, and
  (c) the end matter.



14.10 FURTHER READING

1. Kothari, C.R. and Garg, G.(2014), 'Research Methodology - Methods and Techniques', New Age International Publishers
2. Malhotra. N.K.(2011), Marketing Research – An Applied Orientation, Pearson



14.11 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q1. The main text provides the complete outline of the research report along with all details. The main text of the report should have the following sections:

(a) Introduction
(b) Research Methodology
(c) Statement of Findings and Recommendations
(d) Results
(e) Implications of the Results
(f) Summary

Ans to Q.2. The entries in bibliography should be made adopting the following order:

For books and pamphlets the order may be as under:

(a) Name of author, last name first.

(b) Title, underlined to indicate italics.
(c) Place, publisher, and date of publication.
(d) 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:

(a) Name of the author, last name first.
(b) Title of article, in quotation marks.
(c) Name of periodical, underlined to indicate italics.
(d) The volume number and issue number.
(e) The date of the issue.
(f) The pagination.

Example:

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

Ans to Q3. Different steps in writing report involve:

(i) Logical analysis of the subject-matter
(ii) Preparation of the final outline
(iii) Preparation of the rough draft
(iv) Rewriting and polishing
(v) Preparation of the final bibliography
(vi) Writing the Final Draft



14.12 MODEL QUESTIONS

Q.1. "It is only through interpretation the researcher can expose the relations and processes that underline his findings". Explain, giving examples.

Q.2. Explain the significance of a research report and narrate the various steps involved in writing such a report.

Q.3. Describe, in brief, the layout of a research report, covering all relevant points.

Q.4. What is a visual presentation?

Q.5. What are the different forms in which a research work may be reported. Describe.

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