

Study notes on Structure of a Project Report

Please note: These study notes are to be used for creating the PCT report text and should also be used as study material for the class test. The parts marked with an asterisk are optional and may not be included in the final report.

FRONT MATTER

1. Cover page: Contents include the title, the number, date, classification, name of author and authority.
2. Frontispiece: This is a window display added to arouse curiosity; it showcases the contents of the report graphically. It may take the form of a photograph, map, drawing, illustration or a collage.
3. Title-page: This is the first right-hand page and contains additional items like the sub-title, names of author and authority, contract or project number, approvals and distribution list.
4. *Copyright notice: This is printed on the top of the inside cover page. Sometimes a note is added: 'All rights reserved. No part of this report may be reproduced in any form or by any means without permission in writing from the publisher.'
5. *Forwarding letter: This is also known as the letter of transmittal. Most formal reports contain some form of personal communication from writer to reader. In most cases, letter of transmittal makes this contact. As the name implies, it is a letter that transmits the report to the reader. It should be written in a direct style. The opening words should say, in effect: "Here's the report." This is of two types: Covering or Introductory. The covering letter is not bound by the report but is submitted separately. It serves simply as a record for transmission and does not contain important information. The introductory letter is bound with the report and is placed after the title page. It performs the same function as that of a preface. It makes helpful and informative comments about the report. It establishes rapport with the readers and uses personal pronouns (I, we, you) to create a friendly aura. The letter may also acknowledge assistance and points out the report's limitations and need for further work. The letter closes in expressing hope that the contents of the report will be found satisfactory.
6. Preface: The preface introduces the report (not the subject-matter) and offers it to the reader. It is included if the report does not include a letter of transmittal. Although it does not formally transmit the report, it does many of the other things that a letter of transmittal does- helpful comments, use, interpretation, follow-up, etc. It is written in the first person, but is not as direct or informal as the introductory letter.
7. Acknowledgements: This places on record the help rendered by persons or organizations that have helped you directly and indirectly in the production of the report. Do not list names while acknowledging help. Categorize help according to the nature of assistance e.g.: guidance, encouragement, emotional support, technical support, secretarial assistance, proofreading, valuable help through interviews, etc. Avoid using clichés like first and foremost, last but not the least, firstly, secondly, thirdly, etc.
8. Table of Contents: This is typed with a margin of one and a half inches on the left margin and one inch on the right. Leave two spaces between main headings and one space between sub-headings. The pagination of chapters is as follows: Preface, Acknowledgements and Summary in small Roman numerals and Arabic numerals for the rest of the chapters. Back matter is just listed but neither numbered nor paginated.

9. List of Illustrations: This is included only if illustrations are more than 10 or 12 in number. This can be further sub-divided into List of Figures and List of tables.
10. Summary or Abstract: A summary is written for general reports whereas an abstract is to be written for technical reports. A summary is 5 to 10 % of the report whereas the abstract is 2 to 5 % percent. The summary gives the substance of the report in a nutshell whereas the abstract presents the report in a concentrated form. The summary may include significant findings, important conclusions and major recommendations but the abstract gives only the extent of coverage. The summary may contain illustrations or examples; the abstract does not include these. The summary or the abstract is therefore the report in miniature. It concisely summarizes all of the report's essential ingredients. A summary is designed chiefly for the busy executive who may not have time to read the whole report, but it may also serve as a preview or a review for those who will thoroughly read the report.

MAIN BODY

11. Introduction: This prepares the reader to receive the report. The function of the introduction is to put the whole report in perspective and provide a smooth, sound opening for it. A good introduction must furnish the readers with sufficient material concerning the investigation and problem, to lead them to an easy comprehension of the rest of the report. It gives the historical and technical background of the topic, mentions the scope of study, basic theories and principles involved, the purpose, the limitations, sources and methods of collecting data, definitions of special terms and symbols. Ending the introduction with an explanation of the general plan of the report will provide a logical transition to the next section of the report.
12. Methodology: This is the same as the part that explains 'Procedure' in short informal reports. It describes the methods of data collection and is written in brief in the passive voice.
13. Discussion and description: Note that this is not the title of this part of the report. This contains the chapters or sections of the report grouped under different headings and sub-headings. Remember the logical and psychological ordering of various topics. The standard font size used is 12 for text, 14 for sub-headings, and 16 for main titles. You can use either talking headings like "Decreasing demand for leather shoes" or topic headings like "Demand for leather shoes."
14. Conclusion: Some reports must do more than present information. They must analyze the information in light of the problem and from there reach a conclusion. Conclusion is that section of the report where you bring together all the essential points developed in the discussion. All conclusions must be supported by what has gone before; nothing new must be included at this stage. The function of this section is to bring the Discussion to a close and to signal to the reader gracefully that he has reached the end.
15. Recommendations: A recommendation specifies a course of action to be taken. These should be stated only if asked for or required.

BACK MATTER

16. *Appendix: This is the first part of the back matter of the report. It is not a dumping ground for extra material but includes material needed to support the body of the report. Questionnaires, statistical data, samples of forms, data sheets, calculations, illustrative materials, sample documents, symbols, tables of definitions may be included in the appendix. Number consecutive parts of the Appendix as Appendix A, Appendix B, etc.
17. List of references: These give credit to works cited in the text. For instance: Under the title “Works Cited” you can include a list of references actually quoted or used directly or indirectly in the text. Given below are certain samples of entries that are to be recorded at the end of the report.

Example of a book used:

Alan Warner, ‘A Short Guide to English Style,’ London: Oxford University Press, ELBS Edition, 1965, pp.40-45.

Example of a site on the net:

Mahesh Kothari, ‘Changing face of the Indian Economy’. *Indiamart.com*, 31 August 2010, <http://www.indiamart.com/indianeconomicstory_1516.html>. (*here 31 August refers to the date on which you accessed the site*).

In case the net article has no author start with the web page title, for instance, *yogiimpressions.com* and then the name of the article.

Example of a newspaper article:

F.Kattimani, ‘What’s in a name?’ TNN, *The Times of India*, Sunday 5 September 2010, p.1.

18. Bibliography: This is an alphabetical list of books, sources, references consulted but not cited in the text. Example of an entry:
Palmer, Frank. ‘Grammar’. Second Edition. Burlington, England. Penguin Books Limited, 1945.
Since this may not be directly cited inside the text, the entry carries no page numbers.
19. Glossary: This is a list of technical words with explanations.
20. *Index: The index is meant to be a quick reference guide to locate the material in your report. Your readers can locate a topic, sub-topic, or any other important aspect of the report quickly and easily. The index is arranged in alphabetical order.

Report-writing

Module plan:

- What is a report? Definitions, importance, objectives
- Qualities of a good report
- Language and Style in reports
- Types of reports
- Formats of reports: Memo, letter, book
- Preparatory steps to writing a book/team project report: Methods of collecting data, structure, illustrations.

What is a report?

Origin: Latin *re + portare* (back + carry) which means description of an event “carried back” to someone who was not present on the scene. Scientists, engineers, etc. write reports as part of their duty. These require careful investigation, sound thinking, logical organization and clear writing.

Definitions:

C.A.Brown: A report is a communication from someone who has information to someone who wants to use that information (this means reports are asked for and not self-initiated- my comment).

Lesiker & Petit: A business report is an orderly and objective communication of factual information that serves some purpose.

A report is, therefore, a formal communication written for a specific purpose; it includes a description of procedures followed for collection and analysis of data, their significance, the conclusions drawn from them and recommendations, if required.

What a report is not: A report is not a literary piece of work, fiction or creative writing. The conclusions and recommendations are based strictly on facts. In the absence of facts, authoritative opinions are the best information available e.g. expert opinions or opinions in a market survey of a carefully chosen cross-section of a target audience.

Importance of reports:

1. Major role in modern communication: Executives and government officers need information in order to make decisions. This information is obtained through reports. In earlier times, members could meet, discuss problems and arrive at decisions. But today’s complex business organizations cannot keep track of activities in various departments, branches and even offices overseas. Therefore reports are vital in today’s business operations.
2. Growth and progress: In a highly competitive atmosphere, a company needs to evaluate its performance and improve its working. This is done by analyzing its production and distribution processes and comparing these with other organizations. Reports form a

valuable source for analysis and comparison as weekly and monthly reports are submitted by salespeople, production supervisors, research specialists, technicians, etc.

3. Decision-making: A large number of important decisions in business, industry or government are taken on the basis of information presented or recommendations made in reports. A report is written when:
 - a. A problem is noticed
 - b. A situation has to be analyzed
 - c. Detailed information is required to make a decision
4. Personal growth and advancement: The ability to write good reports is requisite to your advancement in business. Writing reports is a discipline that has intrinsic value. It develops the power of discrimination, organization, judgement and communication.

Why do scientists and engineers need training in report-writing?

According to T.A. Richards and Ralph Richardson: "Success in engineering and research depends as much upon the ability to present an idea convincingly as it does upon the ability to perform calculations and experiments." Reports are the most important form of writing for engineers. In his earlier professional work he will be forced to furnish some sort of written records to his superiors. As he advances, he finds that his reports increase in length and complexity. He is called upon for greater skill in composition and for more ingenuity. The engineer's reports vary from the simple account of a simple job to a detailed account based on an extensive examination and leading to important recommendations. An engineer's ability is judged from the reports that he writes. Examples of problems that demand a recording and communication of facts: Electric power developments, questions of water supply, selections of sites, tests of machinery, and means for improving plant efficiency.

A technical report manual tells engineers that: "A report is often an engineer's only tangible product. It presents his investigation, his testing and experimentation. If his efforts are to count in the judgement of his superiors, he must describe clearly what he has done. He must show the significance of his work; and often the engineer's written report is his only contact with the management."

Objectives of a report:

A report is written with these primary objectives: to inform, to advise or to persuade. The purposes may vary widely depending on the situation in which a report is asked for. Given below are some important purposes of reports:

- To present a record of accomplished work/experiment/research findings/technical specifications.
- To document schedules/timetables, milestones/current status/complex information for future reference (a report on policies and procedures)
- To present information either to a large number of people or organized information on a particular topic (project report, committee reports)
- To recommend actions that can be considered in solving certain problems.

Qualities of a good report:

- **Comprehensive:** A good report should be complete in every respect. All relevant areas of discussion and facts should be included; a detailed discussion should not be evaded if important problems are being investigated.
- **Conciseness and brevity:** At the same time a report should be brief and concise. Although everything significant should be included, care should be taken to ensure that the final draft is precise and terse.
- **Factual details and objectivity:** The emphasis should be on facts, not perception or fiction. Facts and figures should be presented in an accurate manner as these play an important role in fulfilling the purpose of the report. Inaccurate facts may lead to disastrous decisions. Conclusions and recommendations (if asked for) should either be supported by facts or clearly labeled as opinions. Secondly, good reports present a logical interpretation of facts. They avoid presenting the writer's opinion, attitudes and biases. The writer's attitude in interpreting the facts and writing the results should be neutral, fair and ethical. The writer should approach the problem with an open mind and look at all sides of every issue. His/her role should be much like that of a fair-minded judge presiding over a court of law. Maintaining objectivity is also the only sure way to make report-writing believable. The report seeks truth, regardless of the consequences.
- **Readability:** A good report is always reader-oriented. While drafting a report, it is necessary to keep in mind the readers who are going to use it. A report meant for a layman will be different from one meant for technical experts. In any case, a report must be clear and unambiguous. It should avoid decorative and poetic language. Facts must be properly arranged to give a clear picture. It should be edited for grammatical accuracy.
- **Special format:** Formatting techniques provide useful signposts for the reader, especially in technical and project reports. Sections that have headings and paragraph titles help the reader navigate through the report. There are set standards of formatting with rules for the cover page, table of contents, list of illustrations and appendices, which lend uniformity to all book reports.

Language and Style in reports:

- **Objectivity:** Objectivity is a matter of both style and substance. One should keep one's personality out of the report. Therefore, the little word "I" should play no part in the exposition. There should be no literary figures of speech, no overused or ornamental words; the tone should be detached and should reflect a passion for truth.
- **Restraint:** Enthusiasm should not overbalance judgement. Avoid terms like 'shocking,' astonishing, flagrant, disastrous, dismal, etc.

- Consideration of emotional factors: Keep in mind the emotions and reactions of the readers who will receive your report. Do not be unduly harsh or critical in interpretations and conclusions. Be tactful and diplomatic while phrasing recommendations.
- Readable writing: Readability in terms of style is determined by choice of words, and length of sentences and paragraphs. Select words that readers understand because a single word may have a dozen dictionary meanings.
 - a. Use strong vigorous words: For instance, use ‘tycoon’ instead of a ‘successful business executive.’
 - b. Use short phrases: For instance, use ‘last year’ instead of ‘during the preceding year.’
 - c. Use specialized words with caution and avoid needless jargon.
 - d. Use concrete words instead of abstract terms: Say 22% instead of ‘sizeable profit.’ Say ‘this machine does the work of 7 people’ instead of ‘this machine saves labor.’
 - e. In simple situations use active constructions rather than passive; especially in the beginning of a report for which you have personally collected data. Statements in the active voice also make the writing vigorous, lively and less wordy. For instance: Various devices that have experimented on have given very encouraging results. A better version would say: The experiments on various devices have given very encouraging results. However, for technical reports, passive voice should be used. For example, ‘the samples were tested every half an hour.’
 - f. Keep sentences short: According to Frank Clark; “You can suffocate a thought by expressing it in too many words.” Pay attention to modifiers, prepositions and conjunctions and split long sentences into shorter one for better readability.
 - g. Use familiar rather than unfamiliar words: Use ‘large’ instead of ‘substantial’, ‘workable’ rather than ‘viable’, ‘profitable’ rather than ‘lucrative.’

For the rest of the topics, we can use pg.367 to 398 from Technical Communication. Sample reports are on pages 447-450. Please instruct students to keep these photocopies ready as they will need these for the tutorials.

Prewriting stages: Preparatory steps to report-writing

- Understanding the purpose and scope
- Analyzing the audience
- Investigating the sources of information
- Organizing the material
- Making an outline

Understanding purpose and scope:

The purpose indicates the objective of writing the report. This enables you to decide the amount or method of data to be collected, the quality and quantity of the information to be included in the report, and also the methodology to be adopted in analyzing the situation and arriving at a solution. The objectives are clearly stated in the terms of reference. The scope determines the extent of coverage.

Analyzing the Audience:

You must analyze your audience and adapt your writing to meet the needs, interests and background of the readers who will be reading your writing. There are three types of audiences:

1. Experts who know the theory and the product inside and out.
2. Executives who make business, economic, administrative, legal, governmental, and political decisions on the matter that the experts and technicians work with. They may have sometimes as little technical knowledge about the subject as non-specialists.
3. Non-specialists who have the least technical knowledge of all. Their interest lies in being able to use the new product to accomplish their task.

It is important to know your audience in terms of knowledge, experience and training. You must know what your audience is going to expect from the document. Find out what they want to read about and what they do not. Other characteristics of your audience that you should know about are age groups, type of residence, area of residence, gender, political preferences and so on. For a mixed audience, either write all sections so that all audiences of your document can understand them; or write each section strictly for the audience that would be interested in it, then use headings and section introduction to alert your audience about where to go and what to stay out of in your report. In order to make the report more comprehensible to your non-specialist readers, follow these guidelines:

- Add information readers need to be able to understand your document
- Omit information your readers do not need
- Add examples to help readers understand
- Change the level of your examples
- Change the organization of your information
- Use more or different graphics
- Add cross-references to important information

Investigating the sources of information

- Library search
- Internal records
- Database search: Use multiple search engines, avoid stopwords like a, an, the, of, by, with, for, of; use appropriate search operators (AND, OR, AND NOT, NEAR, ADJ),
- Personal Observation: Controlled observation (scientific experiment) uncontrolled (observation of working conditions)
- Interviews: effective method for collecting primary information directly from an expert.

Personal interviews

Guidelines for conducting good interviews:

Get an appointment, be clear about your purpose, carry pen, paper, recording accessories, get prior permission for recording, prepare a list of quest, visualize opening and closing questions, dress appropriately, reach on time, listen actively, be accurate in recording, don't argue, assume a subordinate question, avoid interrupting, be tactful, flexible, confident, finish in time, assure confidentiality, avoid embarrassing questions, thank the respondent, keep the lines of communication open. More on questions: basic four types: open, direct open-ended, close-ended, restatement.

Advantages : qualitative data, can observe reactions of the respondent, effective and efficient if you go prepared

Disadvantages: expensive, time-consuming, cannot contact a large number of people, data may not be, therefore, representative, answers are detailed and hence may be difficult to analyze.

Telephone interviews:

Merits: quickest survey technique, refusal rate is low, cost is low, more coverage through calls to a wide area

Limitations: detailed data cannot be gathered, not possible to observe the body language of the informant, one may not be able to modify strategies during the interview, difficult to secure privacy on party lines, static disturbance may disrupt the communication.

- Questionnaires: one of the best methods of collecting primary information. Surveys can tell you what a cross-section of people think about a given topic. Types of questions: Open-ended, close-ended, multiple choice, ranking type, short answers.

Guidelines for preparing good questionnaires:

Provide clear instructions, keep the questionnaire short and easy to answer, avoid leading questions, avoid compound questions, pretest the questionnaire, sequence the questions according to the logical or psychological order.

Sampling: random (every fifth) stratified (organize into categories) proportionate sampling (control the selection in such a way that characteristics of the whole group are represented proportionately).

Advantages : less expensive, specific segments of the population can be reached, more reliable than interviews, questions can be answered at the convenience of the respondent, bias of the interviewer eliminated, identity kept a secret, analysis is easier.

Disadvantages: data may not be representative, inadequate answers or blank answers, difficult to get complex or confidential information. (Sample on page 388 to 391, Technical Communication)

Organizing the material

This can be done in three ways:

- Order of occurrence: The data is presented in a sequence that depends on time e.g.: quarterly report on sales volume
- Order of importance: For informational reports arrange the data in descending order of importance i.e. most important to least important; for analytical reports, arrange in ascending order i.e. least important to most important
- A combination of orders: This is useful in reports involving a double assignment. A combination of order of occurrence and order of descending importance is fairly common, for instance: a report on the appraisal of a situation and the recommended changes.

Making an outline

This is extremely important because : it provides a mechanical framework into which you can fit in bits and pieces of information you have collected for your report; secondly it serves as a signpost to show you the right direction in which you need to proceed for writing your report.

The following guidelines should be kept in mind while making an outline:

- Use words or phrases: Use either topic headings like “Marketing strategies” or talking headings like “Creating marketing strategies.”
- Use Parallel Grammatical Constructions: If you use a noun phrase like “Advantages of computers” do not use “What are the applications” as a second heading.
- Avoid needless repetition : take away repeatedly used words
- Use principles of Coordination and Subordination: Main headings should be on the same level; sub-headings are subordinated to the main headings. (Examples of this given on Page 396).
- Follow a suitable numbering system: Use either the conventional numbering system (I followed by A, B, then 1,2 and then a,b, then (1) and then (a) or the

decimal numbering system: 1.0 followed by 1.1 then 1.1.1 , and so on. Do remember to avoid putting headings beyond the third level on the Contents page.