

FOURTH SEMESTER (HONS)

PAPER: C10T

ANALYSIS AND WRITING UP

Data analysis embraces a whole range of activities of both the qualitative and quantitative type. It is usual tendency in behavioral research that much use of quantitative analysis is made and statistical methods and techniques are employed. The statistical methods and techniques are employed. The statistical methods and techniques have got a special position in research because they provide answers to the problems. Kaul defines data analysis as, "Studying the organized material in order to discover inherent facts. The data are studied from as many angles as possible to explore the new facts."

Purpose:

The following are the main purposes of data analysis:

- (i) **Description:** It involves a set of activities that are as essential first step in the development of most fields. A researcher must be able to identify a topic about which much was not known; he must be able to convince others about its importance and must be able to collect data.
- (ii) **Construction of Measurement Scale:** The researcher should construct a measurement scale.

All numbers generated by measuring instruments can be placed into one of four categories:

(a) **Nominal:** The number serves as nothing more than labels. For example no 1 was not less than no 2. Similarly no 2 was neither more than no 1 and nor less than no 3.

(b) **Ordinal:** Such numbers are used to designate an ordering along some dimensions such as from less to more, from small to large, from sooner to later.

(c) **Interval:** The interval provides more precise information than ordinal one. By this type of measurement the researcher can make exact and meaningful decisions. For example if A, B and C are of 150 cm, 145cm and 140 cm height, the researcher can say that A is 5 cm taller than B and B is 5 cm taller than C.

(d) **Ratio Scale:** It has two unique characteristics. The intervals between points can be demonstrated to be precisely the same and the scale has a conceptually meaningful zero point.

- (iii) **Generating empirical relationships:** Another purpose of analysis of data is identification of regularities and relationships among data. The researcher has no clear idea about the relationship which will be found from the collected data. If the data were available in details it

will be easier to determine the relationship. The researcher can develop theories if he is able to recognize pattern and order of data. The pattern may be showing association among variables, which may be done by calculating correlation among variables or showing order, precedence or priority. The derivation of empirical laws may be made in the form of simple equations relating one interval or ratio scaled variable to a few others through graph methods.

(iv) Explanation and prediction: Generally knowledge and research are equated with the identification of causal relationships and all research activities are directed to it. But in many fields the research has not been developed to the level where causal explanation is possible or valid predictions can be made. In such a situation explanation and prediction is construct as enabling the values of one set of variables to be derived given the values of another.

Functions:

The following are the main functions of data analysis:

- The researcher should analyze the available data for examining the statement of the problem.
- The researcher should analyze the available data for examining each hypothesis of the problem.
- The researcher should study the original records of the data before data analysis.
- The researcher should analyze the data for thinking about the research problem in lay man's term.
- The researcher should analyze the data by attacking it through statistical calculations.
- The researcher should think in terms of significant tables that the available data permits for the analysis of data.

Foreword:

It's a section in a book that is reserved for – usually – a different writer than the author of the book. The writer of this section discusses the author and the book, and how they're connected to it. Sometimes the writer is a friend of the book's author or a mentor. The subject can vary, as well. It acts as an introduction to the book and helps market it: if an up and coming writer can

FOREWORD

Stamps can help to provide an avenue for learning about a nation's history and heritage. I am very pleased that my retired colleague and old friend, Dr Tan Wee Kiat continues with his interest in writing stamp-based books to help our young Singaporeans know more about our little country's history and heritage.

This present book, the tenth in the series, looks at the prominent people whose names or faces have appeared on our Singapore stamps. While each and every one of these 'stamped' individuals may be regarded as a very important person (VIP), it is timely to remind ourselves that there are many other VIPs whose names/faces have not been shown on Singapore stamps.

I have read the draft of this book and have found its contents to be informative, interesting and educational. I congratulate Dr Tan and his co-authors on its publication. Now, turn the pages and let them introduce you to the VIPs remembered in our Singapore stamps.

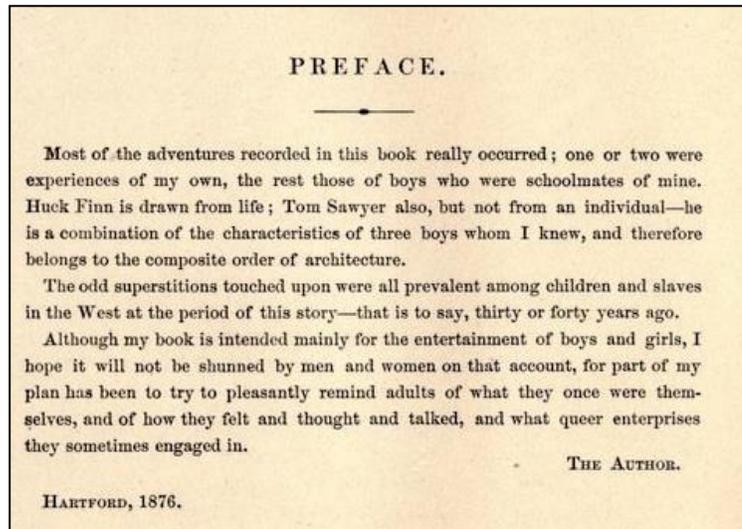
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land a foreword written by a credible, established writer, this can increase it's value.

Preface:

The preface is a section that comes before the story, and it is often jumbled up with the introduction, foreword, and prologue. These terms aren't interchangeable. However, it's important for self-publishers to know what a book preface is and how it is different from other front matter.

The definition of preface is, “*an introduction to a book, typically stating its subject, scope, or aims.*” A preface is written by the author, and it is about the book: how it came to be, what inspired it, what the writing process was like, etc. A preface is a place for the author to discuss the situation surrounding their book, essentially, and is more often used in nonfiction books.



End notes:

Note citing a particular source or making a brief explanatory comment placed at the end of a research paper and arranged sequentially in relation to where the reference appears in the paper.

Advantages of Endnotes

- Endnotes are less distracting to the reader and allows the narrative to flow better.
- Endnotes don't clutter up the page.
- As a separate section of a research paper, endnotes allow the reader to read and contemplate all the notes at once.

Disadvantages of Endnotes

- If you want to look at the text of a particular endnote, you have to flip to the end of the research paper to find the information.
- Depending on how they are created [i.e., continuous numbering or numbers that start over for each chapter], you may have to remember the chapter number as well as the endnote number in order to find the correct one.

- Endnotes may carry a negative connotation much like the proverbial "fine print" or hidden disclaimers in advertising. A reader may believe you are trying to hide something by burying it in a hard-to-find endnote.

Footnotes:

Footnotes are the notes meant for the simplification of a view point. This means that a particular point of expression or quotation, citation of sources, acknowledgement or authority/ comments are explained separately from the body of the written text or in other words it is also known as explanatory notes. It is therefore, generally used in explaining quotations or points/text which may or may not be necessary for the immediate matter but still holds a value added supplementary content/ information. It is also used to acknowledge the source of information one has taken or what is called your copyright permission footnotes.

Footnotes are generally placed at the bottom of the page on which the quotation or text is given or appeared. The footnotes should be written with proper references based on the nature of sources, authors, page numbers etc. Some people use endnotes instead of footnotes on a separate page at the end of everything else. i. e. after the references.

Some important points/format in the writing up of footnotes are:

- The note number should be recorded successively in a superscripted form .
- Notes are written single spaced while, the first line is always indented up to five spaces
- The space/distance between two notes are doubled spacing
- A space is maintained between the footnotes and the text usually by a typed line.

Advantages of Footnotes

- Readers interested in identifying the source or note can quickly glance down the page to find what they are looking for.
- It allows the reader to immediately link the footnote to the subject of the text without having to take the time to find the note at the back of the paper.
- Footnotes are automatically included when printing off specific pages.

Disadvantages of Footnotes

- Footnotes can clutter up the page and, thus, negatively impact the overall look of the page.
- If there are multiple columns, charts, or tables below only a small segment of text that includes a footnote, then you must decide where the footnotes should appear.
- If the footnotes are lengthy, there's a risk they could dominate the page, although this issue is considered acceptable in legal scholarship.

Endnote Vs Footnote:

BASIS FOR COMPARISON	FOOTNOTE	ENDNOTE
Meaning	Footnote refers to the supplemental piece of information, published at the bottom of the page.	Endnote implies a note printed at the end of the book or a particular section of the book.
Position	Bottom of the page	End of the document or book or chapter
Contains	An abbreviated addition of an in-text excerpt.	Details of the reference quoted.

Glossary:

A glossary is a list of terms that traditionally appears at the end of an academic paper, a thesis, a book, or an article. So, a glossary is an alphabetized list of specialized terms with their definitions. In a report, proposal, or book, the glossary is generally located after the conclusion. "A good glossary," says William Horton, "*can define terms, spell out abbreviations, and save us the embarrassment of mispronouncing the shibboleths of our chosen professions*". The glossary should contain definitions for terms in the main text that may be unfamiliar or unclear to the average reader. To write a glossary, you will first need to identify the terms in your main text that will need to go into the glossary. Then, you can create definitions for these terms and make sure the formatting of the glossary is correct so it is polished and easy to read.

Prologue:

The word 'prologue' comes from the root word *logos* meaning 'speech' and the prefix *pro-* meaning 'before'. It's literally the before-word. A prologue is a piece of writing found at the beginning of a literary work, before the first chapter and separate from the main story. Its purpose is to introduce important information—such as background details, or characters—that have some connection to the main story, but whose relevance is not immediately obvious.

Authors use them for various purposes, including:

- Giving background information about the story.

- Grabbing readers' attention with a scene from the story. The author could pick an exciting scene from the middle of the story to draw readers in and make them want to keep reading.
- Describing a scene from the past that is important to the story, such as a fire where the main character's father is killed, which is the motivation for the action in the novel.
- Giving information from a different point of view. The story is written in first person, and the prologue is in third person. The prologue focuses on a secret of one of the characters (which the main character would have no way of knowing, and the author would not otherwise be able to tell the reader due to the first person perspective).
- Expressing a different point in time. For example, the prologue may be about the main character who is in her eighties and who is remembering her childhood, which is when the story takes place.

Epilogue:

An epilogue or epilog (from Greek *epílogos*, "conclusion" from *epi*, "in addition" and *logos*, "word") is a piece of writing at the end of a work of literature, usually used to bring closure to the work. It is presented from the perspective of within the story. When the author steps in and speaks directly to the reader, that is more properly considered an afterword.

An epilogue is a literary device that functions as a supplemental, but separate, part of the main story. It is often used to reveal the fates of the characters in a story and wrap up any loose ends. An epilogue is always set at some point in the future, after the main events of the story have taken place. Sometimes, particularly in genre fiction, it is also used to hint at the next installment in a series of works.

Prologue Vs Epilogue:

Prologue and epilogue are two separate sections of a literary work such as novel or drama. They can be in the form of a short speech, poem, narrative, elegy, etc. This is a technique used by writers to give additional detail to the story. It is important to note that not all books contain both prologue and epilogue; books often contain one or the other. The **main difference** between prologue and epilogue is that **prologue is situated at the beginning of the story** whereas **epilogue is situated at the end of the story**; the prologue comes before the story, and the epilogue comes after the story. Based on this main difference, some other differences can be also noted between these two sections.

PROLOGUE VERSUS EPILOGUE

Prologue is the separate introductory section of a literary work.	Epilogue is a short concluding section found at the end of the book.
Prologue comes before the story.	Epilogue comes after the story.
Prologue serves as an introduction.	Epilogue serves as a conclusion.
Prologue can introduce characters, establish the setting and provide background details. Pediaa.com	Epilogue can provide details about the fate of the characters and tie up loose ends unresolved in the story.

Appendix:

It is the information which cannot be included in the main body of a write up but need to be explained or provided at the end in case of any requirement. In other words, it is the extra information provided to the reader for the purpose of detail knowledge generation. Appendices are the materials/information which are too detailed, technical or complex one has used or referred but not always remain essential as part of the main body of the report. Appendices are listed in detail at the very end of the report which can be numbered clearly for convenience. The numbered appendices can be referred within the parenthesis inside the text.

It can be tables, questionnaire, data, figures, maps, local terminologies, or jargons related to the study topic which has already referred inside the text. Suppose, you are reading a report or a book and a representative table is

APPENDIX C						
EXPORT OF U.S. BOOKS BY TYPES (Data extracted from BISG Annual "Trends")						
Type of Book	Exports in \$/millions		Percent of Type Exported		Percent of Type to Export Totals	
	1974	1980	1974	1980	1974	1980
Trade (Hardbound and Paperback)	34	59	6.0	4.8	11.9	11.6
Religious	6	13	4.3	4.1	2.2	2.5
Professional	93	178	19.5	17.7	31.8	34.9
Book Clubs	14	10	4.7	1.9	4.8	2.0
Mail Order	5	11	0.2	2.0	2.0	2.2
Mass Market						
Paperback	34	73	10.8	9.7	11.6	14.3
University Press	9	16	19.6	20.5	3.1	3.1
School (K-12)	20	24	3.2	2.5	6.8	4.7
College	56	99	11.9	10.3	19.3	19.4
Subscription—						
Reference	19	27	6.8	7.7	6.5	5.3
All Books	292	510			100.0	100.0

Note: The types of book follow the classification used in the statistical reports issued annually by the Association of American Publishers.

analyzed in the text or main body, you may get the details of the data present in the table in the form of questionnaires/schedules at the end of the report as appendix where, good numbers of

questions are set to gather the reported data in the table. This generally answers lot of queries of the readers or provided a good source of knowledge for related studies.

So, an appendix is the organized way of putting supplementary information that will provide a scope to the reader in understanding the material presented. The first step for making appendix is the systematic categorization of the information. Next task is the naming of the appendix. If there is a single appendix, it may be titled as Appendix or Appendix A and if it is more than one, appendices can be Appendix A, Appendix B, Appendix C... and so on. After the finalization of appendices, each appendix should be kept on its own separate pages.

Bibliography:

Bibliography is the representation of a list of sources (books, journals, websites, periodicals, etc.) which includes information such as author, title, year of publication; publishing house/publisher etc. These sources are the one which a researcher used for researching a topic. This has got similarity with references or sometimes used as references however, the two terminologies are different in ideas and also in representation. References are the listing of those sources which are referred in the text or body of the paper or what is called in text-citation. Thus, those references mentioned inside the text particularly in the form of quotations and paraphrases mentioning page numbers would be compulsorily listed in the references however, the sources enlisted in the bibliography may or may not be part of such references referred inside the text but remain relevant to the research topic. It is therefore the listing of all sources you have read including those you made references inside the text. And the listing format of bibliography remain same with the above discussed examples of referencing but the differences in between the two (references and bibliography) is in the enlisting of sources only.

Bibliography

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Reference:

Referencing is a good academic training to acknowledge the sources properly, referring the work of people also help in generating new ideas, gaining efficiency, strengthening one's arguments on a particular piece of work. But when referencing the sources, should we reference every source that we have read. We should use referencing each time whenever we read a source and referred something using a direct quote or words from a source and paraphrases meaning that putting someone's idea into our own words. And also, all the referencing should be kept in the reference list.

References generally appeared in the form of a list at the end of the papers (in case of articles) or reports (in case of a research study). The nature of position and its representation varies from one style guide to another. For example APA (*American Psychological Association*) style of referencing is different from the MLA (*Modern Language Association*) style of referencing. First step for learning referencing is familiarization of a particular style guide so that you do not have problems in the future while following a prescribed style of referencing. Let us take APA style as one for your practice and try to understand the rules/format of referencing given under it.

Some important points for writing references: (APA style Guide)

- Reference list should be entered in alphabetic order.
- Authors' names are inverted i.e. last name is written first. Initials are abbreviated and used punctuations accordingly. If the authors are more than seven, first six would be listed and then would use ellipses and at the end after the ellipses the last author would be listed.
- Year of publication should be entered just after the authors' names followed by titles of the book, book chapters, journal articles, webpages, magazines etc.
- All major words in journal titles should be capitalized.
- Capitalization is only for the first letter of the first word of the title and subtitle and proper nouns. Capitalization is not done for the first letter of the second word in a hyphenated word in case of referencing books, articles, book chapters, or webpages or of nay sources.
- Books and journal titles should be italicized including the volume number in case of the Journals.

- The titles of shorter works such as journal articles or essays in edited collections should not be italicised or quoted. Instead, italicization is done for the title of the edited collections.
- Referencing different articles by the same or multiple authors are listed in order by the year of publication, beginning with the first.

Let us discuss at the work sheet provided to understand the referencing format of APA Style:

Recommended format

Single Author Book:

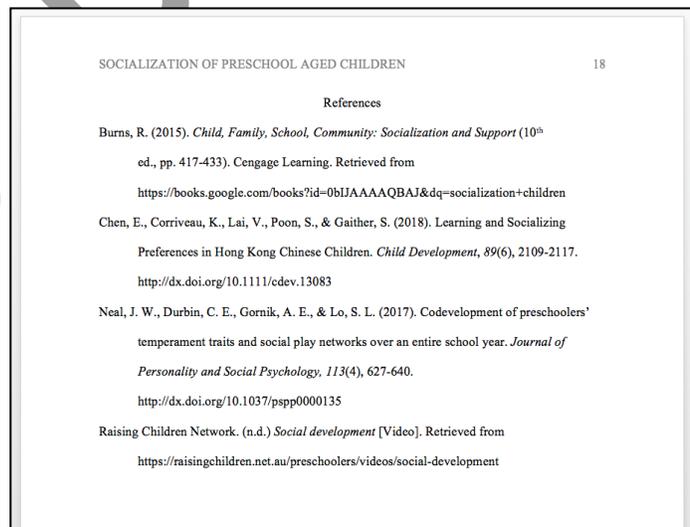
- Kavoori , P. (1999). Pastoralism in expansion: The transhumant herders of Western Rajasthan. New Delhi: Oxford University Press.

Two authors book:

- Gadgil,M. &Guha, R. (1992). This fissured land: An ecological history of India. Delhi: Oxford University Press. [use ampersand (&) , not and in writing authors more than one however, it should be “and” in case of in-text citation. i.e. when you refer the authors’ name in the body of the text]

Articles in Periodicals:

- Kuehn, B. M. (2005).Experts charge new US dietary guidelines pose daunting challenge for the public. *JAMA (Journal of the American Medical Association)*, 293 (8), 918-920. [Journal title is italicised along with the volume number. In case of APA style guide pagination is done without p/pp.]



However, this is only for the first time learners and is not encouraged rather go through the examples and analyze it carefully, practice frequently and you will gain familiarity with the format of referencing. Once you are familiar with a particular format/style guide, you will be able to pick up any of the referencing style conveniently. Each of the references recorded in the list at the end of the article/report is the detailed account of the citations/quotations which was mentioned in the body of the text. We need to make sure that the necessary information is included and correct to the best level of knowledge meaning thereby that no discrepancy is

surfaced. Now, let us try to practice/ analyze a particular format of referencing a book source which is going to be helpful in familiarizing on what we include in reference. They are:

- 1) The author(s)/ Editor(s) (ed.)
- 2) The author's initials
- 3) Title (subtitle , if present)
- 4) Year/Date of Publication
- 5) Place of publication
- 6) The publisher

In case of Journal articles, we may note the elements such as :

- 1) The author(s)
- 2) The author's initials
- 3) Title of the article (subtitle , if present)
- 4) Year of Publication
- 5) Name of the journal
- 6) The volume and issue number of the journal
- 7) The starting and ending page numbers

Bibliography Vs Reference

BASIS FOR COMPARISON	REFERENCE	BIBLIOGRAPHY
Meaning	Reference implies the list of sources, that has been referred in the research work.	Bibliography is about listing out all the materials which has been consulted during the research work.
Arrangement	Alphabetically and numerically	Alphabetically
Includes	Only in-text citations, that have been used in the assignment or project.	Both in-text citations and other sources, that are used to generate the idea.
Supporting argument	A reference can be used to support an argument.	A bibliography cannot be used to support an argument.

Index:

An index (plural: usually indexes, more rarely indices; see below) is a list of words or phrases ('headings') and associated pointers ('locators') to where useful material relating to that heading can be found in a document or collection of documents. Examples are an index in the back matter of a book and an index that serves as a library catalog.

In a traditional back-of-the-book index, the headings will include names of people, places, events, and concepts selected by the indexer as being relevant and of interest to a possible reader of the book. The indexer may be the author, the editor, or a professional indexer working as a third party. The pointers are typically page numbers, paragraph numbers or section numbers.

In a library catalog the words are authors, titles, subject headings, etc., and the pointers are call numbers. Internet search engines (such as Google) and full-text searching help provide access to information but are not as selective as an index, as they provide non-relevant links, and may miss relevant information if it is not phrased in exactly the way they expect.

Perhaps the most advanced investigation of problems related to book indexes is made in the development of topic maps, which started as a way of representing the knowledge structures inherent in

traditional back-of-the-book indexes. The concept embodied by book indexes lent its name to database indexes, which similarly provide an abridged way to look up information in a larger collection, albeit one for computer use rather than human use.

Index	
A	Dial type 4, 12
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