

# CHAPTER 6 Data and Information for Research



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# Data and Its Types

- Data is the building block of any research. Data can be defined as the values collected through record-keeping or polling, observing or measuring. In simple terms, data is facts, texts or numbers that can be collected.

There are three categories of data:

- i) Subjective vs. Objective
- ii) Qualitative vs. Quantitative and
- iii) Primary vs. Secondary

# Data and Its Types

- Primary data is original data gathered at first hand for the research project at hand. Thus, primary data is collected for meeting the specific objectives of the study. Primary sources include interviews, questionnaires, observations or experiments.
- The main advantage of primary data is that the researcher controls the data collection process.
- Any data which have been gathered earlier for some other purpose are secondary data in the hands of researcher.
- Secondary data refer to those for already gathered by others. As this data already exists, it is often more cost-and-time effective to analyze it before looking for primary sources.

# Data and Its Types

- The sources of secondary data can be divided into two groups: internal and external.
- The sources of such data include sales information, accounting data and internally generated research reports.
- External secondary data is collected from sources outside the company. Such sources may include books, periodicals, published reports, data services and computer data banks.
- For example, the demographic statistics collected every ten years are the primary data with ministry of health and population of Nepal but the same statistics used by anyone else would be secondary data with that individual.

# Data and Its Types

Primary Data	Secondary Data
Those data which are collected a <b>fresh and for the first time</b> on the account of concerned	Are <b>compiled data</b> (संकलित) that are <b>taken from several primary sources</b> and synthesized (संश्लेषित) or summarized in some way
Also called <b>original data</b>	Secondary data are <b>not original data</b>
<b>Collecting methods:</b> observation method, interview, questionnaire etc.	Achieved from <b>published sources and unpublished sources</b> such as CBS, Research institution, Report of ADB, WB

# Methods of Primary Data Collection

- When we talked about qualitative data, we talk about data in the form of words and observations
- Example of qualitative data are news article, interviews notes etc.
- Understanding a social problem from multiple perspectives (दृष्टिकोणहरू)
- Uses techniques like in-depth interview, focus group interviews
- Examples: Historical research

# Quantitative Research

- It is an inquiry into a identified problem based on testing a theory, measured with numbers and analyzing with statistical techniques
- Involves the measurement of quantity or amount (e.g. economic, statistical)
- Example: Experimental research, survey research

## QUALITATIVE RESEARCH

Data are collected in descriptive forms rather than numerical form

Researcher is the data gathering instrument

Data = pictures, object, interviews, videos etc.

Recommend for early phases of research project

Researcher have only rough idea about what he/she is looking for

Smaller sample size

## QUANTITATIVE RESEARCH

Data is collected in numerical forms and analyzed by descriptive

Researcher has tools such as questionnaire, equipment for the data collection

Data = Number, statistical data

Recommend for latter phase of research project

Researcher clearly know in advance what they are seeking for

Larger sample size



## QUALITATIVE RESEARCH

The researcher can use his/her judgment in this research

Purpose: The main aim is to achieve an in-depth understanding of a situation and develop theories

Usefulness: This research is useful to understand the phenomena

Examples : Historical study, case study, Ethnography etc,

## QUANTITATIVE RESEARCH

Less chance of using his/her judgment

The main aim of quantitative research is to explain, predict and test and reset the theories

This research is useful to come in to conclusion

Examples: Experimental research, Survey

# Experimental Research

- Such research describes what will happen if **certain variable(s) are carefully controlled** or manipulated
- Researchers are expected to control or vary all the variables involved in the study
- **Natural science research** are mostly experimental research
- **Conducted** either in the **laboratory or in the field**

# Interview Method

- A **verbal technique** for obtaining data
- Most commonly used method of data collection in study of human behaviour
- PV Young “Interview may be regarded as a **systematic method** by which a person enters more or less imaginatively into the life of a comparative stranger”

# Questionnaire Method

- Questionnaire is a printed list of questions sent through mail to respondents to be returned by the respondents after filling up the questionnaire
- 'fundamentally, the questionnaire is a set of stimuli to which literate people are exposed in order to observe their verbal behaviour under these stimuli' – GA Lundberg
- 'In general, the word questionnaire refers to a device for securing answers to questions by using a form which the respondents fills in himself' – WJ Goode & PK Hatt

# Questionnaire Method

- Exchange of questions and answers by mail is the most economical of all other research methods of data collection
- CA Moser -without doubt mailed questionnaire is generally quicker and cheaper than other methods'

## QUESTIONNAIRE

A questionnaire is a **set of questions arranged in sequential order** and related to the investigation of enquiry

**Most economical** in terms of money and man power

There is **high scope of non responses** as well as haphazard and inaccurate data collection

Questionnaire are very **efficient in terms of time and effort**

**Free from the bias** of the interviewer

## INTERVIEW

The interview technique of data collection involves **presentation of oral-verbal and reply in terms of oral-verbal response**

**Expensive** compared to questionnaire

Generally **non-responses remain very low** in this method

All interview required a **careful preparation that means time and effort**

The **interviewer can usually control** which person will answer the question

# Survey Research

- Usually understood as a sample survey
- Identifying number of individuals considered to be representatives of the group to be studied
- To accomplish the researcher's purpose, a survey research must have:
  - A carefully designed set of question (questionnaires)
  - A specific group of individuals to be studied
  - A plan for how these questions will be analyzed

# Survey Research

- The subject matters of survey include:
  - Demographic characteristics
  - Social environments
  - Social activity
  - Opinions and attitudes



# Schedule

- The researcher may present himself/herself the questionnaire to the respondents
- 'schedule is the name usually applied to a set of questions which are asked and filled by an interviewer in a face to face situation with other' – WJ Goode & PK Hatt

# Opinion Poll

- An opinion poll, sometimes simply referred to as a poll, is a human research survey of public opinion from a particular sample
- Opinion polls are usually designed to represent the opinions of a population by conducting a series of questions

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
Purchase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Company Overall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

# Empirical and Conceptual Research

- Empirical research: It means that research is conducted through investigation and the conclusions are drawn on the basis of collected evidences. It is a practical and experimental approach of research.
- Conceptual research: As the name suggests, it is a theoretical approach of research in which the research is conducted by analyzing already present information on the concerned topic.
- No practical experiment is done in conceptual research

# Analytical Method

- The Analytical Method is a generic process combining the power of the scientific method with the use of formal process to solve any type of problem
- Is critical to solving the sustainability problem because it appears that current processes are inadequate (स्थायित्व समस्या समाधान गर्न महत्वपूर्ण छ किनभने यो देखिन्छ कि वर्तमान प्रक्रियाहरू अपर्याप्त छन्)
- Ex: (Research done to eliminate the yearly flooding problem )

# Ideal Method

- Used for systematic comparative analysis of historical data was originally developed by Max Weber
- To ascertain similarities as well as deviations in concrete cases (society, economics)

# Verstehen Method

- Verstehen (which means to understand in a deep way in German) is concerned with identifying the meaning as well as cause of social phenomena
- He/she can do this by learning from the other person, through conversations and interactions that give the researcher greater insight

# CASE STUDY

- A form of qualitative analysis and involves a careful and complete observation of a social unit, be that unit a person, a family, an institution, a cultural group or even the entire community or phenomenon
- It is a method of study in depth rather than breadth
- The case study places more emphasis on the full analysis of a limited number of events or conditions and their interrelations
- Purpose: description, although attempts at explanation are also acceptable

# CASE STUDY

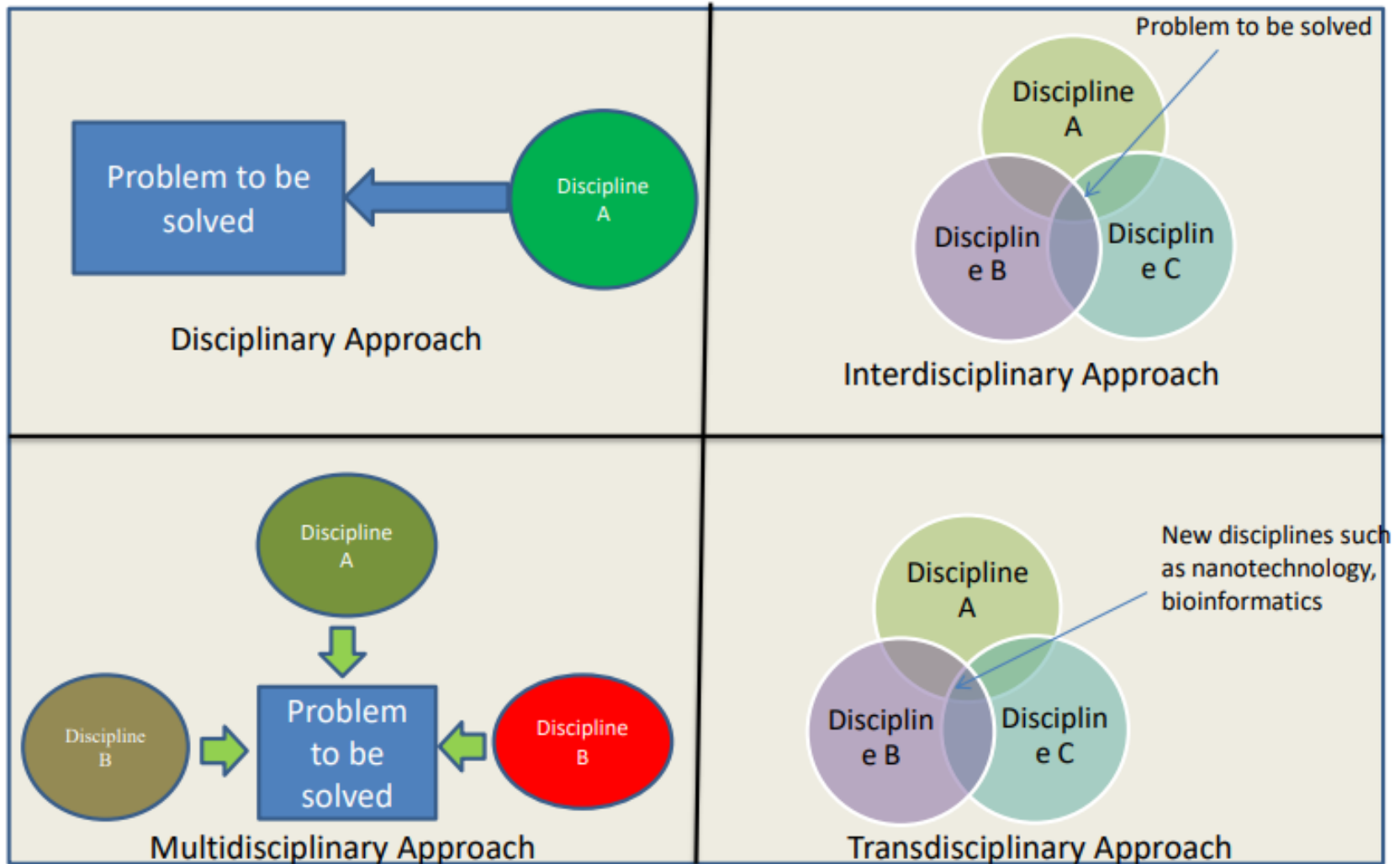
- Case studies distinguished by their **exclusive focus on a particular case** (or several cases in a multiple-case study) and their use of a full **variety of evidence regarding that case**
- Rationale for using case study method typically is the availability of a special case that seems to merit intensive investigation (केस स्टडी विधि प्रयोग गर्नको लागि तर्क सामान्यतया एक विशेष केसको उपलब्धता हो जुन गहन अनुसन्धान योग्य देखिन्छ)
- **Effort is made to know the mutual inter-relationship of causal factors** (कारण कारकहरूको आपसी अन्तरसम्बन्ध जान्न प्रयास गरिन्छ)



# STEPS IN CASE STUDY

1. Determine and define the research questions
2. Select the cases and determine data gathering and analysis techniques
3. Prepare to collect the data
4. Collect data in the field
5. Evaluate and analyze the data
6. Prepare the report

# Approaches to Solve Problem



# Interdisciplinary Research

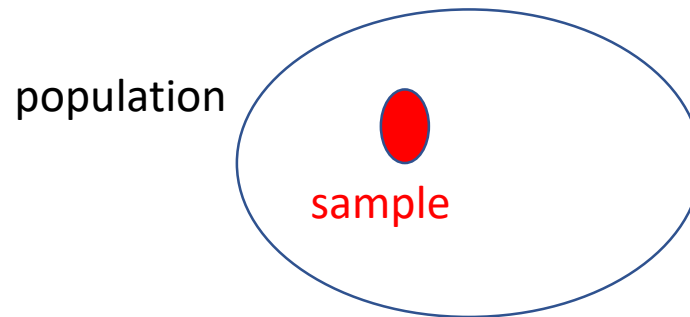
- Today's problems are **mostly complex in nature**
- This demands **integration of expertise of several fields**
- Interdisciplinary research are integration of several fields (natural science and social science)

# Interdisciplinary Research

- Interdisciplinary research/approach is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and or/theories from two or more discipline or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice

# Sample Method

- Sampling is the process of selecting a representative group
- A sample is the group of people who take part in the investigation
- The target population is the total group of individuals from which the sample might be drawn from the population under study



RESEARCH METHOD	RESEARCH METHODOLOGY
Research methods are the <b>methods used by researchers to collect data to conduct research</b> on a particular research topic	A Research methodology is <b>systematic approach to solve the research problem</b> and to reach a new conclusion.
The objective of the research method is to <b>find the solution</b>	The objective of the research methodology is to determine the <b>solution by applying correct procedures of research.</b>
Research methods are useful to apply during the <b>latter stage of the research process</b>	<b>Research methodologies are applied in the initial stage</b> of the research being conducted
Research methods are <b>small part of research methodology</b>	A Research methodology is a <b>multi-dimensional concept</b>
Research methods consist of <b>various techniques where various studies and experiments are used to conduct research and reach an appropriate conclusion.</b>	Research methodologies are used applied during <b>the initial stage of the research to explain the purpose of chosen methods and how they will serve its function</b>
Research methods consist of <b>different investigation techniques</b>	Research methodologies is a systematic <b>strategy</b> to achieve the decided objective.
Research method encompasses of carrying out an <b>experiment, survey, test and so on</b>	Research methodology encompasses different techniques which are used during the <b>performance of the experiment, surveys, and test, etc.</b>

# Research Topic

- Topic = What?? How?? and Where??
- These 3 words directs the methodology
- Example: "The Effect of Covid in Household Economy"
- Only What ( no how and where- title itself is incomplete)
- What – are you done it qualitatively and qualitatively??
- Where- Pkr, Ktm??
- The effect of Covid in Household Economy a **Survey** of Middle Class Income People of Kathmandu Metropolitan City
- What, How- survey (Quantitatively),where- Ktm

# Research Topic

**“Relation between Earning per Month and Saving Pattern of a Household : A Survey of Middle Class People in Pokhara”**

**Research Question:**

**“What is the correlation between the amount of earning per month and the saving pattern of the house hold”**

- **Design: Quantitative research**
- **Data collection tool: Survey**
- **Data Analysis Technique: Correlation coefficient, Regression analysis or some other parametric tests**



# Research Title

"Earning Per Month and Saving Pattern of a Household: An **Ethnography** of Middle Class People in Kathmandu

- Research Question: "How do middle class people perceive savings?? How do they relate with their earnings?"
- Research Design: Qualitative Research
- Data collection tool: Interview
- Data Analysis Technique: Description, finding patterns, linking your data to your chosen theory



# FORMULATION OF RESEARCH PROBLEM

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# Anticipation of Research Problem

- In research process, the **first and foremost step** happens to be that of **selecting and properly defining a research problem**-पहिलो र प्रमुख चरण
- A researcher must find the problem and formulate it so that it becomes **susceptible to research** (एक शोधकर्ताले समस्या पत्ता लगाउनुपर्छ र यसलाई अनुसन्धानको लागि संवेदनशील बन्नको लागि तयार गर्नुपर्छ)
- To define a problem correctly, a researcher must know: what a problem is?

# Research Problem

- “Research Problem” means a question or issue to be examined
- A research problem is a statement about an area of concern, a condition to be improved, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or in practice that points to the need for meaningful understanding and deliberate investigation
- अनुसन्धान समस्या भनेको चिन्ताको क्षेत्र, सुधार गर्नुपर्ने अवस्था, उन्मूलन गर्न कठिनाई, वा सिद्धान्तमा वा व्यवहारमा सार्थक बुझाइको आवश्यकतालाई औल्याउने समस्याग्रस्त प्रश्नको बारेमा कथन हो।

# Research Problem

The purpose of a problem statement is to:

- Introduce the reader importance of the topic being studied. The reader is oriented to the significance of the study and the research questions or hypotheses to follow -अध्ययन भइरहेको विषयको पाठकलाई महत्त्व दिनुहोस्। पाठक अध्ययनको महत्त्व र अनुसन्धानका प्रश्नहरू वा परिकल्पनाहरू पछ्याउन उन्मुख छन्
- Places the problem into a particular context that defines the parameters of what is to be investigated
- Provides the framework for reporting the results and indicates what is probably necessary to conduct the study and explain how the finding will present this information

# Importance of Research Problem

- It establishes the importance of the topic
- It creates reader interest
- It focuses the reader's attention on how the study will add to the literature  
(Guide your [literature search](#))
- Guide your [decisions about the kind of research design](#) to employ
- Guide your decisions about [what data to collect](#) and from whom
- Guide [analysis of your data](#)
- Guide [writing-up of your data](#)
- Stop you from going off in unnecessary directions (stop out track)

# Determining Whether a Problem Should Be Researched

- Can you study the problem?
  - Do you have **access** to the research site?
  - Do you have the **time, resources, and skills** to carry out the research?
- Should you study the problem?
  - Does it **advance knowledge**?
  - Does it **contribute to practice**?



# Determining Whether a Problem Should Be Researched

- Will your study **fill a gap or void** in the existing literature?
- Will your study **replicate a past study** but **examine different participants and different research sites**? के तपाईंको अध्ययनले विगतको अध्ययनलाई नक्कल गर्नेछ तर विभिन्न सहभागीहरू र विभिन्न अनुसन्धान साइटहरूको जाँच गर्नेछ?
- Will your study **extend past research** or **examine the topic more thoroughly**? के तपाईंको अध्ययनले विगतको अनुसन्धानलाई विस्तार गर्नेछ वा विषयलाई अझ राम्ररी जाँच्नेछ?
- Will your study give **voice to people not heard, silenced, or rejected in society**?
- Will your study **inform practice**?

# What is a research question?

- is a statement that identifies the phenomenon to be studied
- The research question begins with a research problem, an issue someone would like to know more about or a situation that needs to be changed or addressed, such as:
  - Areas of concern
  - Conditions that could be improved
  - Difficulties that need to be eliminated
  - Questions seeking answers

# What is a research question?

- A research problem leads to a **hypothesis (H)** and/or **research question**. Research questions should in some way:
  - **Be worth investigating** छानबिन गर्न लायक
  - **Contribute knowledge & value to the field**
  - **Improve educational practice**
  - **Improve the human condition**

Characteristics of a good research question:

- The question is **feasible**
- The question is **clear**
- The question is **significant**
- The question is **ethical**

# Subject Matter Identification

- Observations
- Behaviors
- Concepts
- Theories
- Testing of assessment and intervention strategies (ex: report reviews and deducing issues/gaps)

# Subject Matter Identification

- Everyday life (Professional experience)
- Practical issues (Burning questions)
- Past research/Literature (Research often generates more questions)

Disagreements among studies can lead to worthwhile research)

- Professional meetings
- Discussions

# Narrowing the Subject Matter

- Idea → brainstorming
- Literature review
- Identify the variables for study
- Formulate research problems and questions/hypotheses

# Step in Locating Research Problem

- Step 1 : Determining the **field of research** in which a **researcher is keen** (उत्सुक) to do the research work
- Step 2 : The researcher should develop the **mastery on the area** or it should be the field of his **specialization** (अनुसन्धानकर्ताले क्षेत्रमा **निपुणता** विकास गर्नुपर्छ वा यो उसको विशेषज्ञताको क्षेत्र हुनुपर्छ)
- Step 3 : He should **review the researches conducted in area** to know the **recent trend and studies in the area**
- Step 4: On the **basis of review**, he should consider the **priority field of the study**

# Step in Locating Research Problem

- Step 5: He should draw an analogy and insight in identifying a problem or employ his personal (उसले समस्या पहिचान गर्न वा आफ्नो व्यक्तिगत काममा एक समानता र अन्तरदृष्टि आकर्षित गर्नुपर्छ)
- Step 6: Experience of the field in locating the problem. He may take help of supervisor or expertise of the field.
- Step 7 : He should pin-point specific aspect of the problem which is to be investigated.



# Introduction to Literature Review

- Literature Review represents the theoretical core of a research report
  
- Theoretical Core:
  - a) Definition of important terms
  - b) Linking theory with the research topic
  - c) Conceptual framework
  - d) Defining the relationship of dependent and independent variables

# Literature Review

- A literature review is a self-contained unit in a study, which analyzes critically a segment of a published body of knowledge through summary, classification and comparison of prior research studies and theoretical articles (Cardesco and Ganter)
- A literature review is a summary and analysis of current knowledge about a particular topic or area of enquiry (Williman)
- A literature review is the process of locating obtaining reading and evaluating the research literature in the area of your interest (Haywood and Wragg)

# Sources of Literature Review

- Books and research journals
- Abstracts
- Reports
- Thesis
- Electronic Media/ Internet

# Importance of Literature Review

- Identifying research topic
- Identify methodology and research technique
- Assessing the success of various research designs
- Draws a theoretical framework and defines the research parameters
- Discovers important variables relevant to the topic
- Collecting ideas to collect data
- Knowing methods of data analysis
- Provides the foundation to the present study and provides guide for a particular topic (continuity in research-linking research with past studies)
- Helps to avoid duplication of work

# ASSIGNMENT 1

- 1) Develop and define at least one your interest of research area in context of related to electrical engineering area of Nepal
- 2) Give three judgment of selecting this topic
- 3) Give the minimum three importance of selected research area for local and National context etc.
- 4) Give summary at least three literature reviews with citation, minimum one paragraph for each literature but not more than two paragraph for each literature.
- 5) Develop your research design conceptual framework

➤ I hope, it may be your final thesis topic !!

➤ If so, Congratulations!!

# Literature Review and Critical Evaluation

- 1) Do you agree with the arguments and conclusions of other researchers?
- 2) If you disagree, why? Can you identify contradictory arguments or findings?
- 3) How could you explain the contradiction?
- 4) Do the findings of previous studies apply in all context or the findings context specific?
- 5) What are the various limitations as mentioned by previous research?

# Compiling Proper Literature on a Specific Topic

- Finding appropriate literature on a specific topic
- Managing the information
- Presenting a logical, synthesis and reader-friendly review of current knowledge relating to a specific topic

# Finding an Appropriate Literature

- What do you mean by appropriate literature?
- Where do you find an appropriate literature?
  1. Library search
  2. Database(national and international journals)

For example:

- [Emeraldinsight.com](http://Emeraldinsight.com)
- [Nepjol.org](http://Nepjol.org)(Journal of Nepalese business studies)
- DOAJ (Directory of Open Access Journal)



# Suggested Online Journals

- <http://ascelibrary.org/loi/jcemd4>(Journal of Construction Engineering and Management Published by American Society of Civil Engineers)
- <http://www.tandfonline.com/toc/tjcm20/current>(International Journal of Construction Management)  
<http://www.tandfonline.com/toc/rcme20/current>(Construction Management and Economics)
- <http://www.sapub.org/journal/articles.aspx?journalid=1105>(International Journal of Construction Engineering and Management)

# Some suggested journals

- International journal of operation and Production Management
- Journal of Manufacturing
- Journal of Operation Management
- American Sociological Review
- Journal of Applied Behavioral Science
- European Journal of Operation Research
- Economic and Political Weekly
- The Vikalpa: The Indian Journal of Decision Makers

# Managing Information

- Initially limit the time period of your search for the last three years
- Keep a record of complete reference of a book, journal or web sources. This will save you the trouble of having to find the source again when you have to compile the list of reference for your research proposal or final research report
- Because the contents from a web source can change from one day to the next, it is best to print copies of any web page that you searched and found relevant for your research. Also ensure that you keep the record of complete URL address of the web sources and the date of access
- Maintain a file of all printed copies of contents so that it becomes easier for you to write review.

# Which Aspects Should I include in Literature Review??

- A brief discussion of whether the proposed research topic fits into the bigger picture
- Conceptual definitions
- Discussion of relevant previous research findings
- Theories supporting the hypothesis testing
- Critical evaluation

# How should I synthesise information in Literature Review??

- A literature review is NOT merely a chronological summary of what other people have said or found.
- It is wrong to compile the information like Author A said that .....
  - Do not only summarize existing knowledge.
  - Researchers(Students) often copy and paste information without critical evaluation of the information. This is totally unacceptable.

# How should I structure Literature Review??

- It is suggested that a literature review must be arranged in logical manner which means headings and sub-headings must be included to make the concept clear.

# What Writing Style should I use to compile literature Review?

- Reader Friendly language(Even a layperson should understand)
- Use of common and familiar words.
- APA style of writing

# Steps in Literature Review

## 1. Searching and selecting the relevant literature:

- All literature is not eligible for inclusion- it does not mean that reading other literature is not important
- Search only scientific literature – that has been through a peer refereed or review process, i.e. All types of academic and professional journals and most formal research reports produced by staff of or under the sponsorship of govt. agencies, university affiliated bulletins reports are preferred



## **Locating books and other reading materials in Library/ internet:**

- Use library catalogue (subject or authors)
- Use computerized catalogue
- Visit special collections/ Journal/Govt documentation/ International documentation etc.
- Browse annual publication/ subject literature guide and Encyclopedias.
- Online Data Base

## **2. Reading the searched and accumulated Literature:**

- Start your readings with the most recent studies
- While reading two things are accomplished:
  - Focus more quickly on the current state of knowledge and understanding.
  - The recent research often includes references to relevant earlier literature
- As we examine each source, first read the abstract and/or summary of the article/ report
- Determine the relationship or lack of it, to your study and whether you need to review it for inclusion in your literature review.
- As you read, keep in mind that your central purpose is to identify and describe the study's relevant to your study

## **Note making:**

- Be certain that you have complete citation of each source.
- Keep written notes, do not rely on memory
- Be thorough and systematic in taking notes- note the problem, objectives, methods, findings and conclusions of each study.
- Many authors advise to use of note cards, Later note cards can be categorized to organize the literature review writing.

## **3. Organizing and evaluating the library findings:**

- Systematize notes cards, bibliography cards and the full text.
- Categories them in sub headings such as related to problem, background, conceptual framework, methods/procedures, findings conclusions etc.
- Categorization may be according to time or space dimension (i.e. global/national/local)

#### **4. Writing the Literature Review:**

- The initial task of most students/researchers in writing the literature review is to get the right attitude. The process is not a mere technicality, it serve the vital, necessary purpose of describing and critiquing or analyzing the prior work that is related to proposed study.
- To achieve its function, the literature review need organization- it is not merely a series of unconnected summaries of studies, it is ideally a synthesis of the previous related research.
- Develop an outline of the review before starting to write- initiating the LR with an introduction that sets the tone and prepares the reader for what is to follow.
- Use sub-headings in the LR often helps to organise the presentation- usually arranged under some subject-matter heading-logical groupings of studies with a similar focus.
- Within groupings, the material can be organized in a chronological order, or it may be best presented by constructing the story along other lines.
- A short ending summary section of the LR that pulls all the material together is necessary.

- Do not reference a source of an idea without having actually read the source- another person's interpretation and summary may differ from, and be inferior to your interpretation
- While writing LR text, focus on Who, when, where and how the research had been conducted and what are the main findings, conclusions and recommendations of the the study
- Referencing is very important- to acknowledge the prior work and to prove the reliability and authenticity

# REFERENCING

# Reference Citations in the Text

- The author's last name, unless first initials are needed to distinguish between two authors with the same last name.
- If there are six or more authors, the first author is listed followed by the term, et al., and then the year of the publication is given in parenthesis.
- Page numbers are given with a quotation or when only a specific part of a source was used.
  - "To be or not to be" (Shakespeare, 1660, p. 241)
- **One Work by One Author:**
  - Rogers (1994) compared reaction times...
- **One Work by Multiple Authors:**
  - Wasserstein, Zappulla, Rosen, Gerstman, and Rock (1994) [first time you cite in text]
  - Wasserstein et al. (1994) found [subsequent times you cite in text]

# Citation in text

- Citations in text are of two types: primary sources and secondary sources.
- For a primary source (e.g., those sources listed in your Reference list), identify the surname of the author(s) and the year of publication; page number is used only for a quotation.
- For a secondary source, that is, material that you have not personally accessed, identify the surname of the author(s) and the year, and use the phrase, “as cited in” or “as quoted in” if it is a quotation.
- Several examples follow:
  - 1. *primary source cited in text: According to Brown (2002), it was found that.*  
.....
  - 2. *secondary source cited in text: Jones (1995, as cited in Brown, 2002) detailed the major points of his theory;*
  - 3. *secondary sources cited in text: Several authors (Jones, 1995; Smith 1993; Williams, 1996; all cited in Brown, 2002) found that. . .;*
  - 4. *primary source quoted in text: Brown (2002) stated that: “These findings may not be generalizable to the population because of the limited sample size” (p. 103); and*
  - 5. *secondary source quoted in text: Jones (1995, as quoted in Brown, 2002) stated that, “In my opinion,. . . “ (p. 5).*

# Reference List in Reference Section

- The References lists all the articles, books, and other sources used in the research and preparation of the paper and cited with a parenthetical (textual) citation in the text.
- These items are entered in alphabetical order according to the authors' last names; if a source does not have an author, alphabetize according to the first word of the title, disregarding the articles "a", "an", and "the" if they are the first word in the title.
- **EXAMPLES BOOK BY ONE AUTHOR:**
  - Jones, T. (1940). *My life on the road*. New York: Doubleday.
- **BOOK BY TWO AUTHORS:**
  - Williams, A., & Wilson, J. (1962). *New ways with chicken*. New York: Harcourt.



Cont...

- **BOOK BY THREE OR MORE AUTHORS:**

- Smith, J., Jones, J., & Williams, S. (1976). Common names. Chicago: University of Chicago Press.

- **BOOK WITH NO GIVEN AUTHOR OR EDITOR:**

- Handbook of Korea (4th ed.). (1982). Seoul: Korean Overseas Information, Ministry of Culture & Information.

- **TWO OR MORE BOOKS BY THE SAME AUTHOR:**

- Oates, J.C. (1990). Because it is bitter, and because it is my heart. New York: Dutton.
- Oates, J.C. (1993). Foxfire: Confessions of a girl gang. New York: Dutton.

- **BOOK BY A CORPORATE (GROUP) AUTHOR:**

- President's Commission on Higher Education. (1977). Higher education for American democracy . Washington, D.C.: U.S. Government Printing Office.

Cont....

- **BOOK WITH AN EDITOR:**

- Bloom, H. (Ed.). (1988). James Joyce's Dubliners. New York: Chelsea House.

- **A TRANSLATION:**

- Dostoevsky, F. (1964). Crime and punishment (J. Coulson Trans.). New York: Norton. (Original work published 1866)

- **AN ARTICLE OR READING IN A COLLECTION OF PIECES BY SEVERAL AUTHORS (ANTHOLOGY):**

- O'Connor, M.F. (1975). Everything that rises must converge. In J.R. Knott, Jr. & C.R. Raeske (Eds.), Mirrors: An introduction to literature (2nd ed., pp. 58-67). San Francisco: Canfield.

- **EDITION OF A BOOK:**

- Tortora, G.J., Funke, B.R., & Case, C.L. (1989). Microbiology: An introduction (3rd ed.). Redwood City, CA: Benjamin/Cummings.

Cont.....

- **DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS:**

- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, D.C.: Author.

- **A WORK IN SEVERAL VOLUMES:**

- Churchill, W.S. (1957). A history of the English speaking peoples: Vol. 3. The Age of Revolution. New York: Dodd, Mead.

- **ENCYCLOPEDIA OR DICTIONARY:**

- Cockrell, D. (1980). Beatles. In The new Grove dictionary of music and musicians (6th ed., Vol. 2, pp. 321-322). London: Macmillan.

- **ARTICLE FROM A WEEKLY MAGAZINE:**

- Jones, W. (1970, August 14). Today's kids. Newseek, 76, 10-15.
- Howe, I. (1968, September). James Baldwin: At ease in apocalypse. Harper's, 237, 92-100.

Cont....

- **ARTICLE FROM A NEWSPAPER:**

- Brody, J.E. (1976, October 10). Multiple cancers termed on increase. New York Times (national ed.). p. A37.

- **ARTICLE FROM A SCHOLARLY ACADEMIC OR PROFESSIONAL JOURNAL:**

- Barber, B.K. (1994). Cultural, family, and personal contexts of parent-adolescent conflict. Journal of Marriage and the Family, 56, 375-386.

- **GOVERNMENT PUBLICATION:**

- U.S. Department of Labor. Bureau of Labor Statistics. (1980). Productivity. Washington, D.C.: U.S. Government Printing Office.

- **PAMPHLET OR BROCHURE:**

- Research and Training Center on Independent Living. (1993). Guidelines for reporting and writing about people with disabilities. (4th ed.) [Brochure]. Lawrence, KS: Author.

*Thank You.*  
*for listening.....*

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