

CHAPTER 5 DESCRIPTION OF RESEARCH

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Types of Research

- **Pure research:** involves developing and testing theories and hypotheses that are intellectually challenge to the researcher but may or may not have practical application at the present time or in the future. The knowledge produced through pure research is sought in order to add to the existing body of research methods.
- **Applied research:** is done to solve specific, practical question ; for policy formulation, administration and understanding of a phenomenon. It can be exploratory, but is usually descriptive. It is almost always done on the basis of basic research. Applied research can be carried out by academic or industrial institutions. Often, an academic institution such as a university will have a specific applied research program funded by an industrial partner interested in that program.

| Bases of Differences | Basic Research | Applied Research |
|----------------------|---|--|
| Objective | Main Objective of basic research is to develop theory and enhance the existing knowledge | Main aim of applied research is to find out the solution of immediate problems faced by the concerned organization |
| Focus | Researcher undertakes research in those issues where he/she has interest and knowledge | Researcher should conduct research focusing on the problems faced by the society or organizations |
| Time limit | There is no time limit in basic research | Fixed time is given to the researcher in applied research |
| Generalization | Results of basic research can be generalized in all the similar nature of organization | Applied research focuses on the particular problem of particular organization . So generalization is not possible and necessary |
| Practical | Principles developed through basic research cannot be implemented immediately in practice | Findings of the applied research can be implemented immediately in real life or practice |
| example | Research concerning some natural phenomenon or relating the pure mathematics or concerning human behaviour are examples of fundamental research | An Investigator or researcher is interested to find the factors, which makes the decrease of enrollment of students in the last few year at BE level of United Technical College |

Types of Research

2). From the viewpoint of objectives, a research can be classified as

- **descriptive**
- **correlational**
- **explanatory**
- **exploratory**
- **Descriptive research attempts to describe systematically a situation, problem, phenomenon, service or programme, or provides information about, say, living condition of a community, or describes attitudes toward an issue.**
- **Correlational research attempts to discover or establish the existence of a relationship/interdependence between two or more aspects of a situation.**
- **Explanatory research attempts to clarify why and how there is a relationship between two or more aspect of a situation or phenomenon.**

Types of Research

- **Exploratory research is undertaking to explore an area where little is known or to investigate the possibilities of undertaking a particular research study (feasibility study/pilot study).**

Types of Research

There are different types of research. The basic ones are as follows:

1) Descriptive vs. Analytical:

- **Descriptive research** comprises surveys and fact-finding enquiries of different types. The main objective of descriptive research is describing the state of affairs as it prevails at the time of study. The term *ex post facto* research is quite often used for descriptive research studies in social sciences and business research. The most distinguishing feature of this method is that the researcher has no control over the variables here. He/she has to only report what is happening or what has happened. Majority of the *ex post facto* research projects are used for descriptive studies in which the researcher attempts to examine phenomena, such as the consumers' preferences, frequency of purchases, shopping, etc. Despite the inability of the researchers to control the variables, *ex post facto* studies may also comprise attempts by them to discover the causes of the selected problem. The methods of research adopted in conducting descriptive research are survey methods of all kinds, including correlational and comparative methods. वर्णनात्मक अनुसन्धानले विभिन्न प्रकारका सर्वेक्षणहरू र तथ्य खोजी सोधपुछहरू समावेश गर्दछ। वर्णनात्मक अनुसन्धानको मुख्य उद्देश्य अध्ययनको समयमा प्रचलित मामिलाहरूको अवस्था वर्णन गर्नु हो। सामाजिक विज्ञान र व्यापार अनुसन्धानमा वर्णनात्मक अनुसन्धान। उसले के भइरहेको छ वा के भयो भनेर मात्र रिपोर्ट गर्नुपर्छ। भूतपूर्व पोस्ट फ्याक्टो अनुसन्धान परियोजनाहरूको अधिकांश वर्णनात्मक अध्ययनहरूको लागि प्रयोग गरिन्छ जसमा अनुसन्धानकर्ताले उपभोक्ताहरूको प्राथमिकता, खरीदको आवृत्ति, किनमेल, आदि जस्ता घटनाहरू जाँच्ने प्रयास गर्दछ।

Types of Research

1) Descriptive vs. Analytical:

- **Meanwhile in the analytical research, the researcher has to use the already available facts or information, and analyse them to make a critical evaluation of the subject.**
- यस बीचमा विश्लेषणात्मक अनुसन्धानमा, अनुसन्धानकर्ताले पहिले नै उपलब्ध तथ्य वा जानकारीहरू प्रयोग गर्नुपर्दछ, र विषयको आलोचनात्मक मूल्याङ्कन गर्न तिनीहरूलाई विश्लेषण गर्नुपर्दछ।

Types of Research

2) Applied vs. Fundamental

- Research can also be applied or fundamental research.
- An attempt to find a solution to an immediate problem encountered by a firm, an industry, a business organisation, or the society is known as applied research.
- Researchers engaged in such researches aim at drawing certain conclusions confronting a concrete social or business problem.
- On the other hand, fundamental research mainly concerns generalizations and formulation of a theory. In other words, “Gathering knowledge for knowledge’s sake is termed ‘pure’ or ‘basic’ research” (Young in Kothari 1988). Researches relating to pure mathematics or concerning some natural phenomenon are instances of fundamental research.

Types of Research

2) Applied vs. Fundamental

- Likewise, studies focusing on human behaviour also fall under the category of fundamental research. Thus, while the principal objective of applied research is to find a solution to some pressing practical problem, the objective of basic research is to find information with a broad base of application and add to the already existing organized body of scientific knowledge.**

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Types of Research

3) Quantitative vs. Qualitative

- Quantitative research relates to aspects that can be quantified or can be expressed in terms of quantity. It involves the measurement of quantity or amount.
- The various available statistical and econometric methods are adopted for analysis in such research.
- They include correlation, regressions, time series analysis, etc.
- Whereas, qualitative research is concerned with qualitative phenomenon, or more specifically, the aspects relating to or involving quality or kind.

Types of Research

3) Quantitative vs. Qualitative

- For example, an important type of qualitative research is 'Motivation Research', which investigates into the reasons for human behaviour. The main aim of this type of research is discovering the underlying motives and desires of human beings, using in-depth interviews.
- The other techniques employed in such research are story completion tests, sentence completion tests, word association tests, and other similar projective methods.
- Qualitative research is particularly significant in the context of behavioural sciences, which aim at discovering the underlying motives of human behaviour.

Types of Research

3) Quantitative vs. Qualitative

- **Such research help to analyse the various factors that motivate human beings to behave in a certain manner, besides contributing to an understanding of what makes individuals like or dislike a particular thing.**
- **However, it is worth noting that conducting qualitative research in practice is considerably a difficult task.**
- **Hence, while undertaking such research, seeking guidance from experienced expert researchers is important.**

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

Possible sources in finding a topic

When choosing your own topic, we need to consider the following

- Brain storm for ideas
- Read general background information
- focus on a manageable topic
- make a list of useful keywords
- be flexible
- define topic as a focused research question
- research and read more about topic
- formulate a problem statement which usually is one or two sentences that precisely states what is to be answered or proven. (एक समस्या कथन बनाउनुहोस् जुन सामान्यतया एक वा दुई वाक्यहरू हुन् जसले स्पष्ट रूपमा जवाफ दिन वा प्रमाणित गर्नुपर्दछ)

Possible sources in finding a topic

Suggestions which can aid in making a wise topic selection:

- The sooner we start, the easier our project report writing will be
- Consider the size of the topic. Pick a subject that is not too broad or too small.
- Choose a topic which is not too complex. More than two or three variables should not be investigated.
- be sure there is available material and data on the topic.

Attributes of a Good Research Topic

- राम्रो अनुसन्धान विषय को विशेषताहरू
- Saunders, Lewis and Thornhill (2003)
- Does the topic fit the specifications and meet the standards set by the University?
- Is the topic fascinating? आकर्षक
- Is the issue feasible (technically) or researchable?
- Do we have necessary skills?
- Is the research topic achievable within the time available?

Attributes of a Good Research Topic

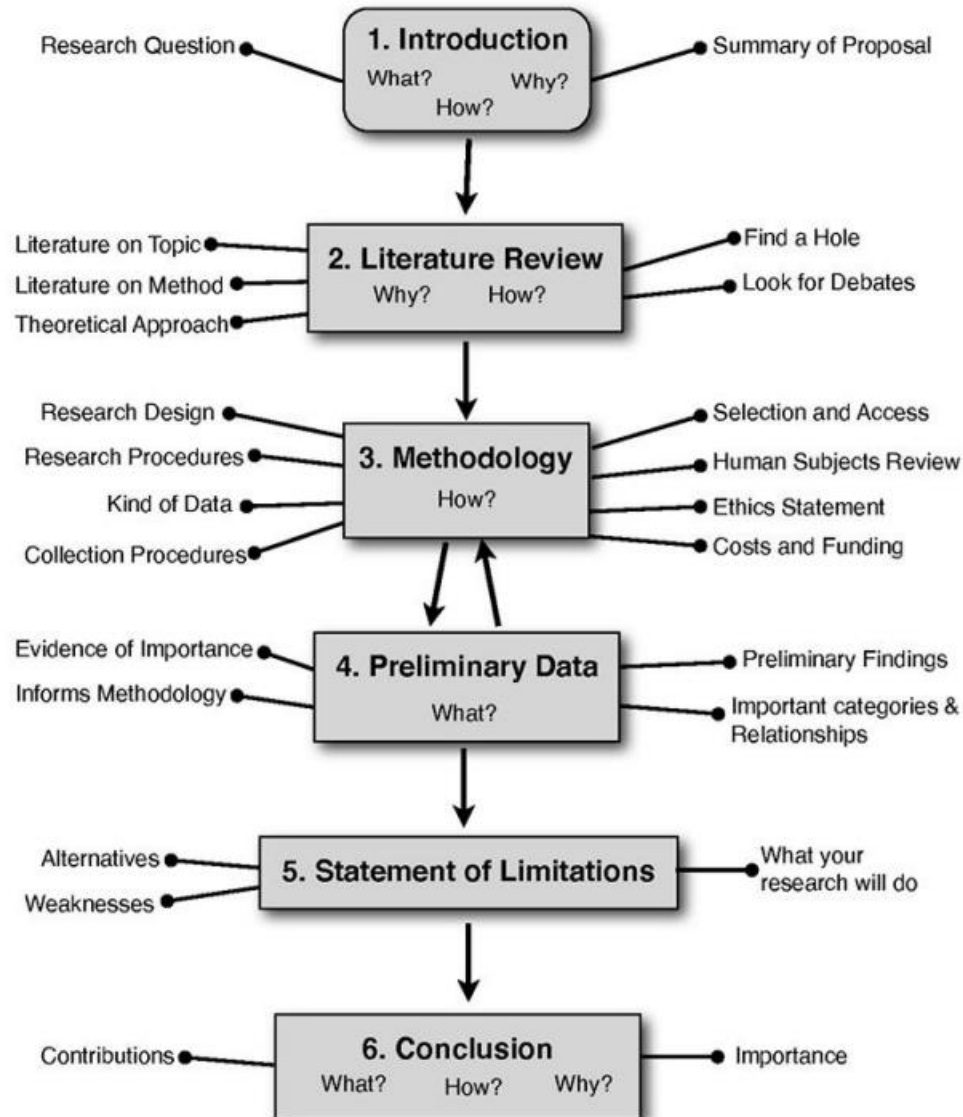
- Are financial resources sufficient?
- Is the required data accessible?
- Are the research questions and objectives are clearly stated?
- Does the research topic match career goals?
- Will it contribute to attaining such goals?

Criteria for selecting a Research Topic

- 1) Interest
- 2) Relevance
- 3) Avoidance of duplications
- 4) Feasibility
- 5) Acceptability
- 6) Applicability
- 7) Cost Effectiveness
- 8) Ethical Considerations

Research Proposal Flow Chart

Research Proposal Flow Chart



Research Proposal

- It is the presentation of an idea we wish to pursue. It is an argument for the proposed study. It needs to explain the logic behind the proposed study, rather than simply summarize or describe the study. A good research proposal presumes that we have already thought of our project and devoted some time and effort in gathering information, studying and then organizing our thoughts.
- यो हामीले पछ्याउन चाहेको विचारको प्रस्तुति हो। यो प्रस्तावित अध्ययनको तर्क हो। यसले केवल अध्ययनलाई संक्षिप्त वा वर्णन गर्नुको सट्टा प्रस्तावित अध्ययनको पछाडिको तर्कलाई व्याख्या गर्न आवश्यक छ। एउटा राम्रो अनुसन्धान प्रस्तावले हामीले हाम्रो परियोजनाको बारेमा सोचेका छौं र जानकारी सङ्कलन गर्न, अध्ययन गर्न र त्यसपछि हाम्रा विचारहरू व्यवस्थित गर्न केही समय र परास समर्पित गरेका छौं।

Research Proposal

- Document describing the research plan, objectives and approach to research undertaking.
- It is important to persuade research organizations/ funding agencies to fund research undertaking.

अनुसन्धान संस्थाहरू/अनुसन्धान गर्ने निकायहरूलाई अनुसन्धान कार्यमा लगानी गर्न मनाउनु महत्वपूर्ण छ।

Research Proposal

- For Graduate students, it is a scholastic document(शैक्षिक कागजात) which answers:
 1. What research are you proposing?
 2. Research problem or Research (statement in the form of questions identifying the relationship or parameters that the researcher wishes to evaluate) question? (What are you looking at?)
 3. Approach or Methodology How are you going to address or explore the problem?
 4. What time frame? What is your working calendar?
What cost and resources?

Elements of a Research Proposal

Frontal Matter:- Letter of Transmittal, Title (to encapsulate the essence of your research in a few words), Synopsis/ Summary

Body

- 1. Background**
- 2. Research Questions/ statement of the problem**
- 3. Literature Review**
- 4. Objectives**
- 5. Methodology**
- 6. Working Calendar / Time frame**
- 7. Resources and Budget**
- 8. Bibliography/ References Appendices/ Annex**

Elements of a Research Proposal

1. Background

- Introduce the topic, why pertinent? किन सान्दर्भिक?
- Motivation statement, how you developed interest in it?
 - Relevance of the proposed study प्रस्तावित अध्ययनको सान्दर्भिकता
 - 1/10th of the total length or proposal
 - well thought/ developed – navigating the research activities राम्रोसँग सोचिएको / विकसित - अनुसन्धान गतिविधिहरू

Elements of a Research Proposal

2. Statement of the problem

- o It is the focal point of the research
- o Good problem statements answer the question “why does this research need to be conducted?”
- o It is just in one sentence, accompanied by several paragraphs to elaborate the problem.

Elements of a Research Proposal

3. Literature Review

- o Previous studies between variables/ research helps developing background information
- o Books, journals, seminar, proceedings etc., helps developing internet sources, popular articles,
- o must be updated, no more than 5 years
- o 40% of the total lengths of proposal

Elements of a Research Proposal

4. Objectives

- o Statement of intent-उद्देश्य

5. Methodology (Research Methods)

- o very important section as it tells the evaluators how you plan to tackle the research problem

- o heart of the proposal

- o provides work plan and describes the activities necessary for the completion of the project

Elements of a Research Proposal

Major contents are as follows:

i) Design

- o A brief mention about the research design to be followed what kind of design do you plan to choose?

- o qualitative, quantitative, experimental study?

ii) Subjects/ Participants

- o The population of the study, organizational details, sample size and sampling methods should be explained

Elements of a Research Proposal

iii) Instruments

- Sources of data, data collection instruments
- What kind of measuring instruments or questionnaire do you plan to choose and why?

iv) Procedure

o Data collection strategy, how do you plan to carry out your study? What activities? How long does it take?

v) Analysis : The analysis of data (Test of Hypothesis) and the statistical tool to be applied, should be mentioned.

Elements of a Research Proposal

References List of References /Bibliography

- List of references contains details only of those works cited in the text.
 - This is a **list of all works cited** in the proposal according to the approved format
 - Must **acknowledge authors** of all publications you have referred while writing proposal
 - Don't copy word by word
 - If done (copied word by word), do not forget to **use quotation mark**
 - Be aware of **plagiarism**

Elements of a Research Proposal

References List of References /Bibliography

- List of references contains details only of those works cited in the text.
- A bibliography includes sources not cited in the text but which are relevant to the subject.(larger dissertations or thesis)
- Small research projects will need only a reference section. This includes all the literature to which you have referred in your report. The popular referencing system Harvard System lists books and periodicals in the following manner

Elements of a Research Proposal

For Books

1. Authors surname (alphabetically), followed by their initials
2. Date of publication
3. Title of book in italics
4. Place of publication, Publisher.

Elements of a Research Proposal

For Books

Philip, T.E.; 1986, *Modern Cookery for Teaching and Trade*, Mumbai, Orient Longman.

For Journal Article:

- The title of the article appears in inverted commas and name of the journal comes in italics, followed by volume number and pages of the article. e.g.

Philip, T.E.; "Influence of British Raj on Indian Cuisine"; *Journal of Hospitality Education*; 5:5-11