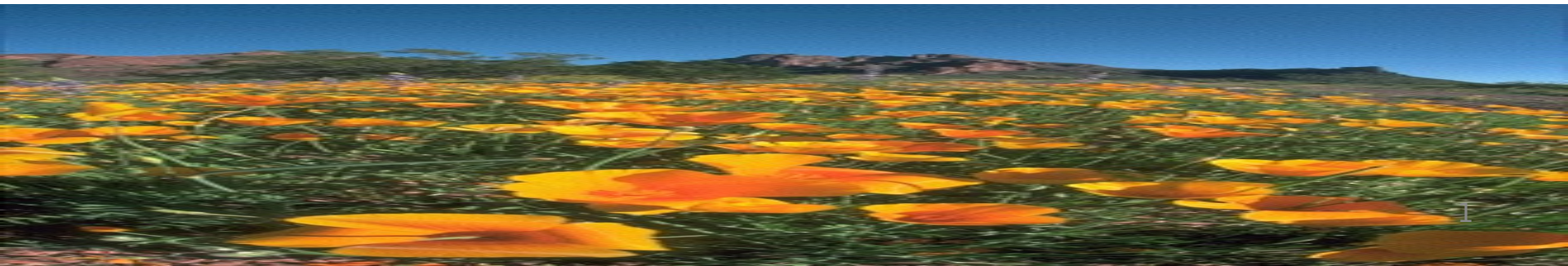
UNIT ONE

THE NATURE OF RESEARCH

Shawel A. (MBA)



CONTENTS

1.1. Meaning and Characteristics of Research

1.2. Objectives of Research

1.3. Types of Research

1.4. Criteria of a Good Research

1.5. Research Process: An Overview

CHAPTER OBIECTIVES

- **In completion of the Chapter, the students should be able to:**

- **define the common *concepts/terminologies* in relating to research methodology,**
- **describe the principal *characteristics* of the research methodology ,**
- **explain the *objectives* of research.,**
- **explain the key possible *motives* of doing a research,**
- **Elaborate the *types of research* with their major classification,**
- **differentiate among the concepts and principles of research *method, research Technique and research methodology,***
- **elaborate the necessary steps in the *research process,***
- **describe the specific *criteria* of a good research**

1.1. MEANING AND CHARACTERISTICS OF RESEARCH

Man coming to grips with environment and to understand the nature through ***experience, reasoning and research***

1.Experience (subsume a number of sources of information)

- Personal experience. I.E., Body of knowledge and skills derived from encounters and acquaintance with facts and events in his environment
- Experience of others
- Sources beyond immediate circle, i.e., authoritative sources

EXPERIENCE and AUTHORITY are richly fertile sources of hypotheses, but they are common sense knowing, often based on haphazard events and use loose and uncritical manner and hence not scientific

2. ***Reasoning***

- Deductive (Aristotle)-from whole to part
- Inductive (Francis Bacon) – from number of observations
- Combined

3. ***Research***

systematic , controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena :

- Systematic
- controlled
- Empirical
- Self- correcting

- Research is a combination of both experience and reasoning and must be regarded as the ***most successful approach to the discovery of truth***

WHAT IS RESEARCH?

1. **A voyage of discovery or a journey/movement** from the known to unknown: an attitude: an experience: A method of critical thinking: a careful enquiry in seeking facts for principles
2. **An activity caused by instinct of inquisitiveness to gain fresh insight/find answers to questions/acquire knowledge**
   - This inquisitiveness is the mother of all knowledge and the method, which man employs for obtaining the knowledge of whatever the unknown. In a broad sense, everyone does research but does not write it up always.
3. **An art of scientific investigation**
   - a scientific and systematic search for pertinent information on a specific topic
   - Process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of data

4. A systematized effort to gain new knowledge

- **Search for (new) knowledge, facts through objective, systematic and scientific method of finding solution to a problem**
- **Implicit question + explicit answer + data to support the answer**
- **Not synonymous with commonsense, but systematic, objective(purposeful), reproducible, relevant activity having control over some factors**
- **the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalizations for some theoretical formulation.**

5. *Comprehensive definition:*

Research is a systematic attempt to obtain answers to meaningful questions about phenomena or events through the application of scientific procedures. It is an objective, impartial, empirical and logical analysis and recording of controlled observations that may lead to the development of generalizations, principles, theories, resulting in to some extent in prediction and control of events that may consequences or causes of specific phenomena.

WHY RESEARCH ?

- To get a research degree
- To get respectability
- To face a challenge
- To solve a problem
- To get intellectual joy
- To serve society by increasing standard of living in case of science & Technology, and by showing right path to society in case of social and behavioral sciences.

1.2. OBJECTIVE OF RESEARCH

The main objective of research is *to discover answers to questions* through the application of scientific procedures.

- To gain familiarity with a phenomenon or to achieve new insights into it (**exploratory or formulative** research).
- To portray accurately the characteristics of a particular individual, situation or a group (**descriptive** research).
- To determine the frequency with which something occurs or with which it is associated with something else (**diagnostic** research).
- To test a hypothesis of a causal relationship between variables = (**hypothesis- testing** research).

- Besides, research is intended to equip the researcher with the following scholarly experiences:
  - ✓ Awareness of the importance of properly choosing and limiting a subject for research.
  - ✓ Self-reliance in using a college library or other libraries.
  - ✓ Experience in evaluating source materials.
  - ✓ Training in careful reading and purposeful note taking.
  - ✓ Discipline in the inductive method of organizing data.
  - ✓ Practice in composing and documenting relatively long papers

1.3. TYPES OF RESEARCH

1. APPLIED

Finding a solution for an immediate problem & not rigorous / flexible in applications o the condition

2. DESCRIPTIVE SURVEY (ex-post facto)

Surveys and fact finding enquires

State of affairs as it exists

No control over variables

What is happened or what is happening most ex-post facto research project.

FUNDAMENTAL/BASIC OR PURE/

concerned with generalizations and formulation of a theory.

knowledge for knowledge's sake (i.e., 'pure' or 'basic' research)

ANALYTICAL

use facts or information already available, and analyze these to make a critical evaluation to the material.

3. QUANTITATIVE

- Measured and expressed in terms of quantity
- Expression of a property or quantity in numerical terms
- Quantitative research helps:
  - To use precise measurements
  - Knowing trends or changes overtime
  - Comparing trends or individual units

4. CONCEPTUAL

- Relies to some abstract idea or theory (for philosophers and thinkers)
- Relies on literature

QUALITATIVE

- Involves quality or kind
- Helps in having insight into problems or cases

EMPIRICAL

- Relies on experience or observation alone, i.e., Data-based research
- Capable of being verified by observation or experiment.
- Experimenter has control over variables under study

Other types

- One time/cross-sectional or longitudinal/developmental and trend or prediction studies (the time domain)
- Field-setting or laboratory or simulation research
- Clinical or diagnostic research
- Historical research (greater part of it is quantitative)
- Conclusion-oriented and decision-oriented research
- Tracer study (follow-up study)

❑ *Techniques, Methods and Methodology*

- **Research techniques-** the behavior and instruments used in research operations

  examples: scales, recording techniques, content analysis, longitudinal/cross sectional collection of data, techniques of processing data, etc.

- **Research methods** - the behavior and instruments used in selecting and constructing research technique.

  Examples: observation, questionnaire, interview, analysis of records, case study, etc

- Methods are more general than techniques.
- *It is the methods that generate techniques.*
- Methods and techniques are used in research operation i.e.,
  - Collection of data
  - Statistical processing and analysis (tests)
  - To evaluate the accuracy of the results obtained
- *However, in practice, the two terms are taken as interchangeable and when we talk of research methods we do, by implication, include research techniques within their compass* ***(See the Handout)***

- **Research methodology** - is a way to systematically solve the research problem. It is a science of studying how research is done scientifically.
- Methodology helps to understand not only the products of scientific inquiry but the process itself.
- Aims to describe and analyze methods, throw light on their limitations and resources, clarify their presuppositions and consequences, relating their potentialities to the frontiers of knowledge.

- Furthermore, the following questions are usually answered by carefully designed research methodology:
  - ✓Why a research study has been undertaken?
  - ✓How was the research problem defined?
  - ✓In what way and how was the hypothesis formulated?
  - ✓What data have been collected and what particular methods has been adopted?
  - ✓Why particular technique of analyzing data has been used ? And a host of similar other questions.

Benefits of Research Methodology

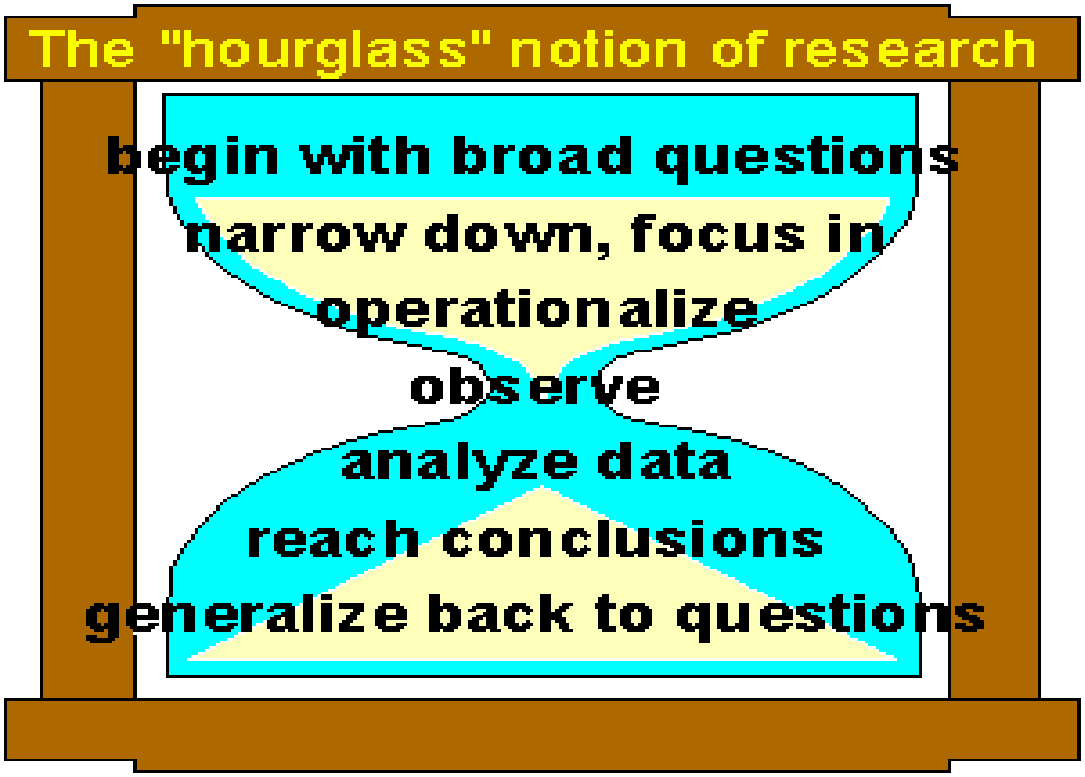
- **Advancement of wealth of human knowledge**
- **‘Tools of the trade’ to carry out research; Provides tools to look at things in life objectively**
- **Develops a critical and scientific attitude, disciplined thinking or a ‘bent of mind’ to observe objectively (scientific deduction & inductive thinking); Skills of research will pay-off in long term particularly in the ‘age of information’.**
- **Enriches practitioner and his practices; Provides chance to study a subject in depth; Enable us to make intelligent decisions; Understand the material which no other kind of work can match**
- **As consumers of research output helps to inculcate the ability to evaluate and use results of earlier research with reasonable confidence and take rational decisions**
- **Doing research is the best way to learn to read and think critically**

1.4. BASIC CHARACTERISTICS

- Research is directed towards the solution of a problem.
- Research emphasizes the development of generalizations, principles, or theories to predict future occurrences.
- Research is based upon observable experiences or empirical evidence.
- Research demands accurate observation and description.
- Research involves gathering new data primary or first- hand sources or using existing data a new purpose.

- Research is characterized by carefully designed procedures, always applying rigorous analysis.
- Research requires expertise.
- Research strives to be objective and logical, applying every possible test to validate the procedures employed, the data collected, and the conclusions reached
- Research is characterized by patient and unhurried activity.
- Research is carefully recorded and reported.

Structure of research



Structure of Research…

- Most research projects share the same structure.
- They start with a broad idea of interest.
- Then narrow the question down.
- Measurements or observations-occur at the narrowest point.
- Here, the researcher begins to formulate some initial conclusions.
- Finally, the researcher attempts to address the original broad question to other related situations.

Criteria of Good Research

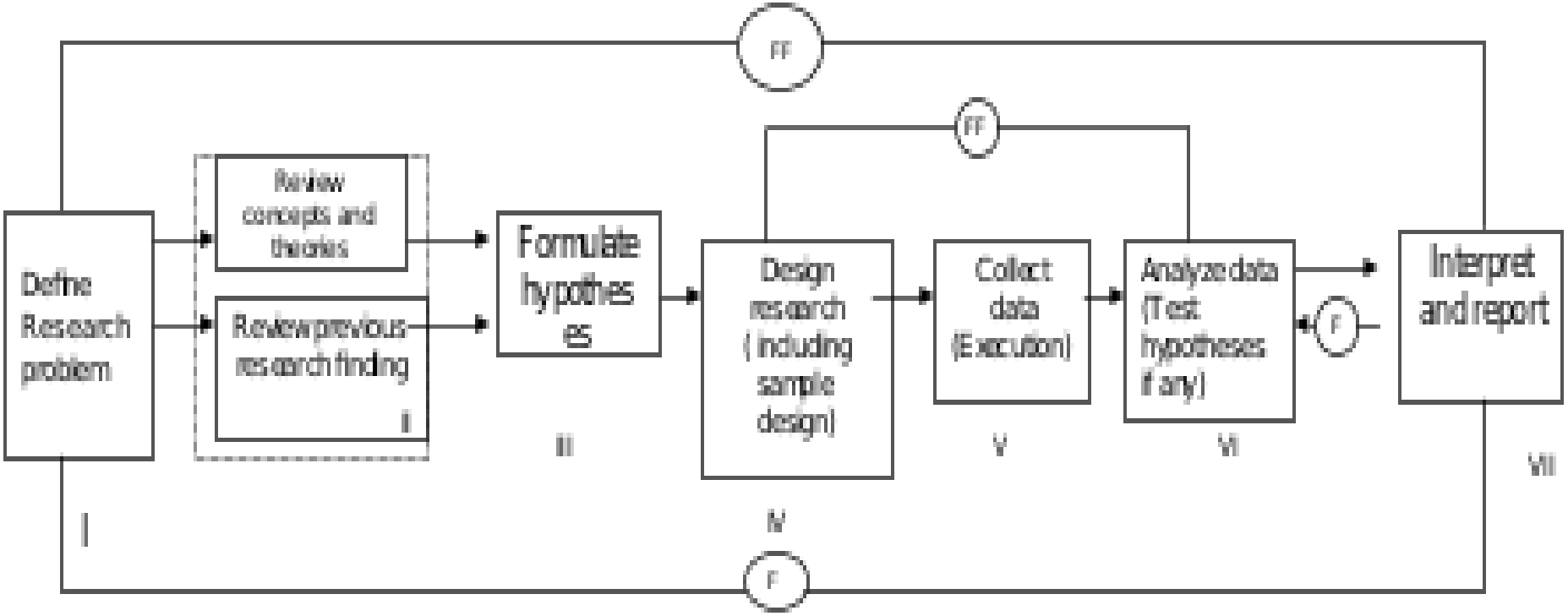
- Purpose/ objectives clearly defined in common concepts
- Procedure enumerated to keep continuity
- Carefully planned design leading to objective results
- Complete frankness; flaws reported and their effect estimated
- Adequate analysis of data with appropriate methods of analysis
- Carefully checked data for validity & reliability
- Conclusions confined to those justified by the data
- Confidence, competence/ reputation, experience, honesty & integrity of researcher

Summarizing the above stated criteria of a scientific research leads to derivation of the qualities of good research as follows.

- **SYSTEMATIC** - Reject the use of guessing & intuition, but does not rule out creative thinking
- **CONTROLLED** – Variables are identified & controlled, wherever possible
- **LOGICAL** - Guided by rules of logical reasoning & logical process of induction & deduction
- **EMPIRICAL**- Provides a basis for external validity to results (validation)
- **REPLICABLE** - Verified by replicating the study
- **SELF CORRECTING** - Built in mechanism & open to public scrutiny by fellow professionals

1.5. THE RESEARCH PROCESS

- Formulating the research problem;
- Extensive literature survey;
- Developing the hypothesis;
- Preparing the research design (including sample design);
- Collecting the data;
- Analysis of data (hypothesis testing if any);
- Interpret and report the results.



here F =feed back (Helps in controlling the sub-system to which it is transmitted)

FF =Feed forward (Serves the vital function of providing criteria for evaluatio

NOTE: 1. The above steps are not exhaustive, nor mutually exclusive, but

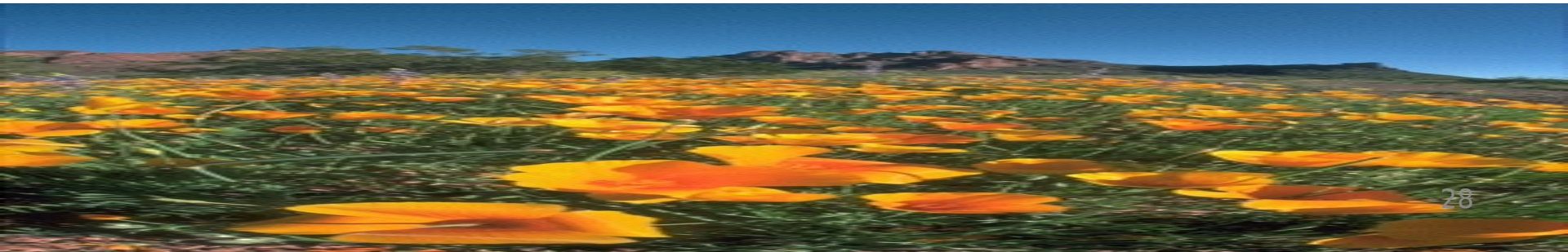
a series of closely related, continuously overlapping and interdependent nonlinear steps/ actions

Unit Two

The Research Problem and Preparation of the Research Proposal

BY:

Shawel A. (Lecturer)



Contents

- What is a Research Problem?
- Selection of Research Problem
- Statement of the Problem
  - Objective of the study
  - Basic Research questions
  - Hypothesis
- The Research Proposal
  - The Meaning and importance of the research proposal
  - Components of the research proposal

Research problem

- **The focal point of every research activity is a research problem.**
- **It takes place when there is a problematic situation and a need to solve the problem.**
- **According to Kotari (2004:24), a research problem refers to some difficulty which a researcher experiences in the context of either a *theoretical* or *practical* situation and wants to obtain a solution for the same.**

Research problem does exist if the following conditions are met with:

- There must be an **individual or a group** which has some difficulty or the problem.
- There must be **some objective(s)** to be attained at.
- There must be an **alternative means** (or the course of action) for obtaining the objective(s) one wishes to attain.
- There must remain **some doubt** in the mind of a researcher with regard to the selection of alternatives.
- There must be **some environment (s)** to which the difficulty pertains.

Selecting the problem

- **The identification of a research problem is an important phase of the entire research process.**
- **It requires a great deal of time, energy, and logical thinking on the part of the researcher.**
- **Therefore, a considerable care must be taken while selecting a research problem.**

Some important sources for selecting a problem:

- ***Professional Experience,***
  - **The researchers' every day experience provides a rich supply of problems for investigations.**
- ***Contact and Discussion with People***
  - **Contact and discussions with research- oriented people in conferences, seminars or public lectures serve as important sources of problem.**
- ***Inference from theory,***
  - **lies in the theoretical system and conceptual schemes which have been developed in the required disciplines**
- ***Professional Literature***
  - **Consultation of research reports, books and articles, periodicals, research abstracts, dictionaries and research guides can be used as a sources of a research problem in a given field**
- ***Technological and Social Changes,*** **directly or indirectly, exert an influence in the function of an organization**

Criteria for selecting a problem

Internal

- researcher's **interest**
- researcher's **competence**
- researcher's own **resources** i.e., finance, time, etc.

External

- **Researchability** i.e., Amenability (problems having solutions)
- **Importance/usefulness , urgency, and social relevance**, i.e., relative importance and significance of problem.
- **Novelty** or **originality**
- **Feasibility**
  - Availability of data
  - Suitable methodology
  - Cooperation of organizations and individuals
  - Available time
- **Facilities /infrastructure**

Moreover, the following points as stated by *Kothari (1990:32-33*), may be observed by a researcher in selecting a research problem or a subject for research:

- **Subject which is overdone should not be normally chosen**
- **Controversial subject should not become the choice of an average researcher.**
- **Too narrow or too vague problems should be avoided.**
- **The subject selected for research should be feasible**
- **The importance of the subject, the qualifications and the training of researcher**
- **the costs involved, and the time factor**

- **Kumar (2011:46) suggests the four P's in selecting a research problem in any academic discipline or occupational field:**
  - **People (select individuals, organizations, groups or communities to examine certain issues, problems or establish prevalence of a phenomenon)**
  - **problems (examine issues, situations, associations, needs, population composition, profiles, etc)**
  - **Programs (examine contents, structure, outcomes, attributes, satisfaction, consumers, service providers, etc)**
  - **Phenomena (examine cause and effect relationships, the study of a phenomenon itself, etc)**

Considerations in selecting a research problem (Kumar 2011:47-48)

- **Interest-**it is important to select a topic that greatly interests you, otherwise it can be hard to sustain interest and motivation in the study
- **Magnitude-** select a topic that you can manage in the time available and to suit your resources and knowledge ; narrow the topic down to something manageable, specific and clear
- **Measurement of concepts** –make sure you know how to measure all concepts included in the study problem

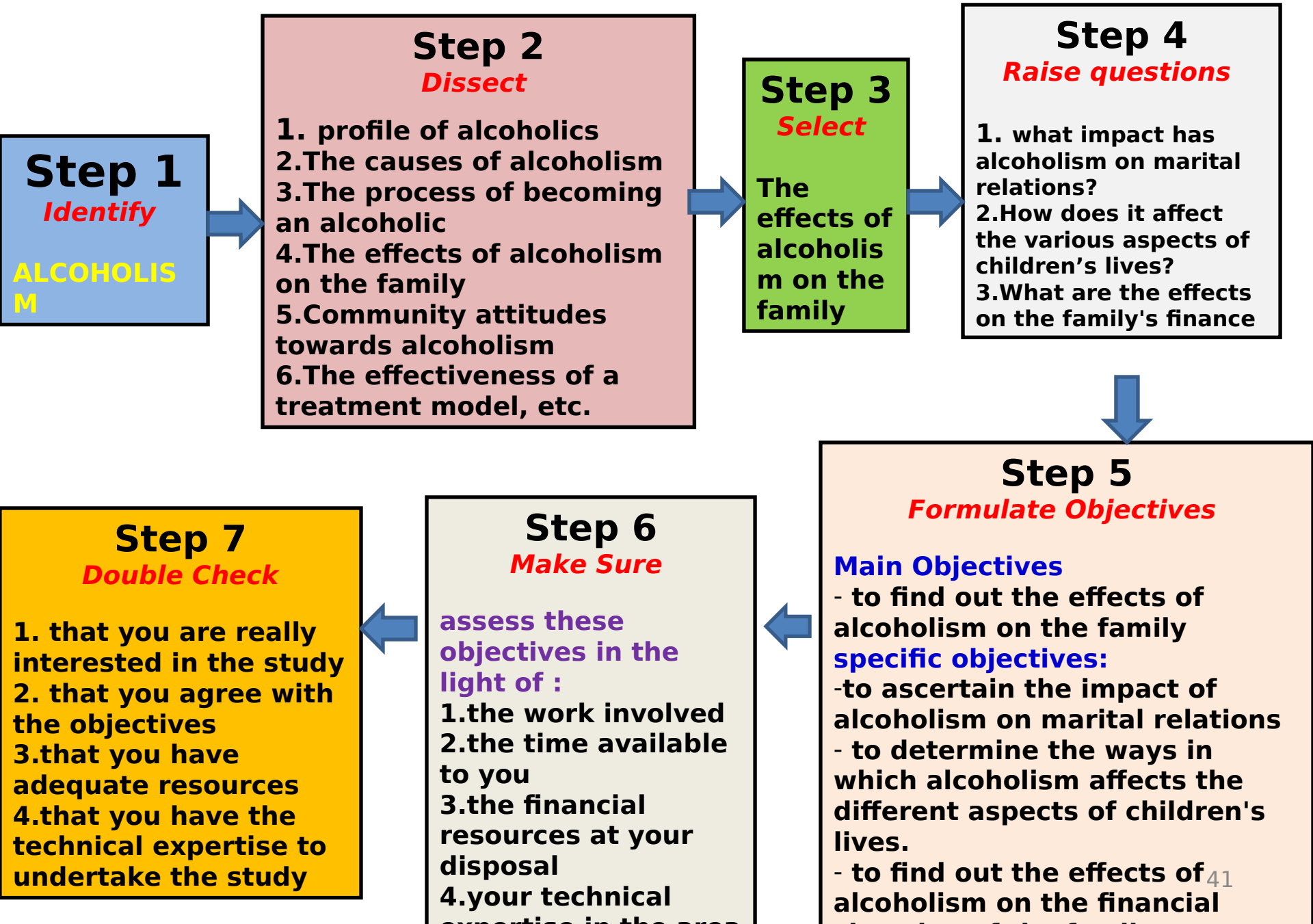
- **Level of expertise**-make sure you have adequate expertise for the proposed research task
- **Relevance**- select a topic that is relevant to your professional discipline and adds to the existing body of knowledge
- **Availability of data**-make sure the required data will be available to you in the format you want
- **Ethical issues**-consider ethical issues that may arise during and out of the study and anticipate how to overcome them

Steps in formulating a research problem: (Kumar 2011:48-50)

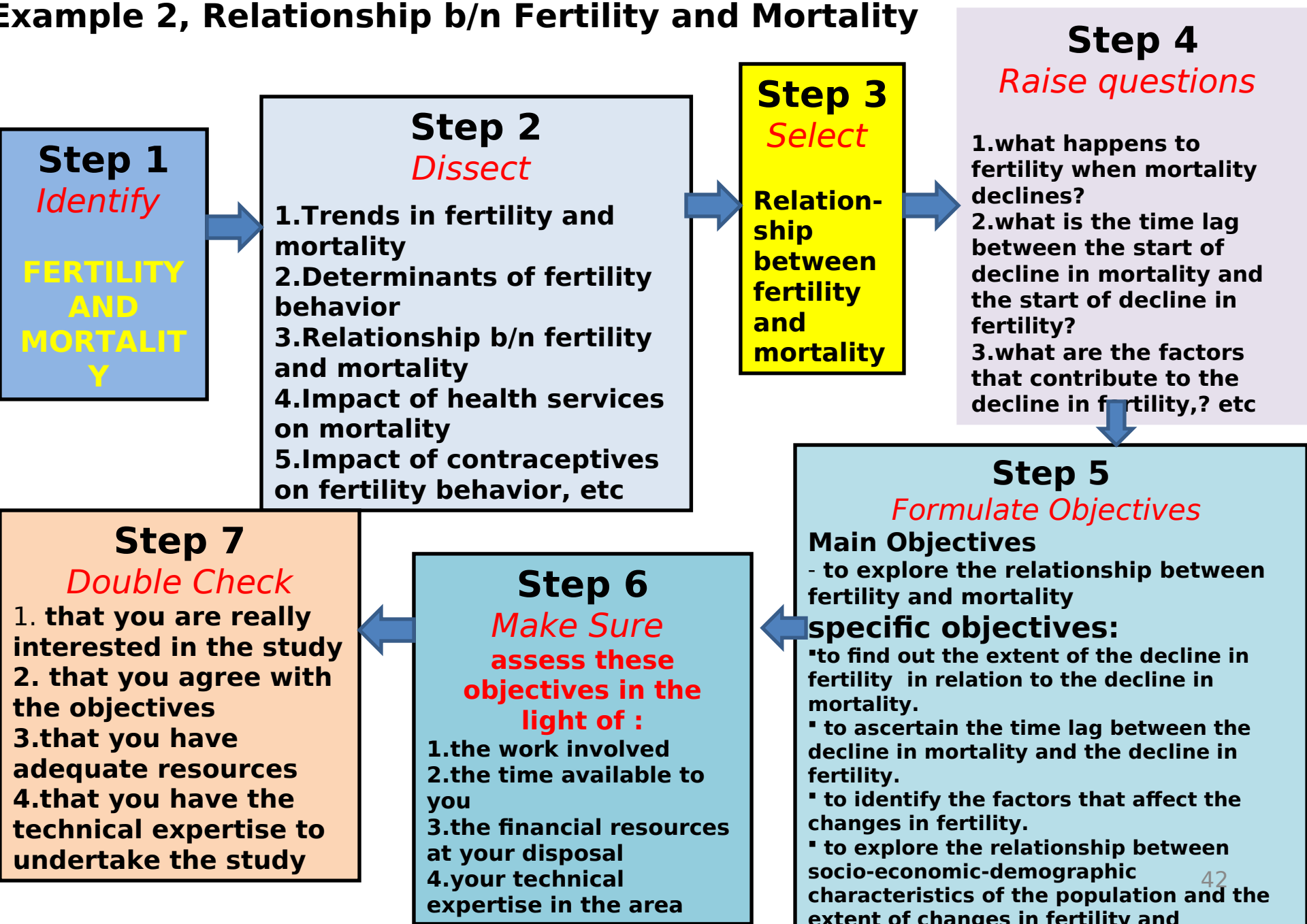
1. **Identify** a broad field or subject area of interest in your academic /professional field
2. **Dissect** the broad area in to sub areas(brainstorm)
3. **Select** the sub area in which you have decided to conduct the research (process of elimination)
4. **Raise research questions** that you would like to answer through the study

5. **Formulate objectives** for the study (one main aim/objectives and three or four sub objectives)
6. **Assess objectives** to make sure that they can be attained in time available, and with financial human resources and technical expertise available
7. **Double check** you are sufficiently interested in the study and have adequate resources for doing it.

xample 1, Suppose you want to study in the area of alcoholism



Example 2, Relationship b/n Fertility and Mortality



According to Kothari (2004:34-35), the technique of defining a problem involves the undertaking of the following steps:

1. ***Statement of the problem in a general way;***
2. ***Understanding the nature of the problem;***
3. ***Surveying the available literature***
4. ***Developing the ideas through discussions; and***
5. ***Rephrasing the research problem into a working proposition*.**

Illustration

- **To illustrate the application of the above stated points, the following example has been extracted from *Kothari (2004:29*).**
- **Let us suppose that a research problem in a broad general way is as follows:**

  "Why is productivity in Japan so much higher than in India?"

- **In this form, the question has a number of ambiguities such as:**
  - ***What sort of productivity is being referred to?***
  - ***With what industries the same is related?***
  - ***With what period of time the productivity is being talked about?***

In view of all such ambiguities the given statement or the question is much too general to be amenable to analysis. Rethinking and discussions about the problem again and again may result in narrowing down the question to:

- ***"What factors were responsible for the higher labour productivity of Japan's manufacturing industries during the decade 1971 to 1980 relative to India's manufacturing industries?"***

- Further rethinking and rephrasing might place the problem on a still better operational basis as shown below:

  - ***To what extent did labor productivity from 1971 to 1980 in Japan exceed that of India in respect of 15 selected manufacturing industries? What factors were responsible for the productivity differentials between the two countries by industries? etc.***

- **The researcher must also see that the necessary data are available. In case the data for one or more industries selected are not available for the concerning time period, then the said industry or industries will have to be substituted by other industry or industries.**
- **The suitability of the time-period must also be examined. Thus, all relevant factors must be considered by a researcher before finally defining a research problem.**

Evaluation of the Problem

- **Before the final decision is passed on the investigation of the problem, the feasibility of the problem has to be tested in terms of personal suitability of the researcher and social value of the problem.**
- ***In short, the research problem should be evaluated in terms of the following criteria:***
  - **Is the problem researchable?**
  - **Is the problem new?**
  - **Is the problem significant?**
  - **Is the problem feasible for the particular researcher?**

- **In addition to the above-stipulated points, the feasibility of the research problem should also be examined from the point of view of the researcher's personal aspects as stated hereunder:**
  - ***Research competence***
  - ***Interest and enthusiasm***
  - ***Financial Considerations***
  - ***Time requirements***
  - ***Administrative considerations***

Research Objectives.

- **Kumar 2011:50 notes that ‘objectives are the goals you set out to attain in your study“. Since these objectives inform a reader of what you want to achieve through the study, it is extremely important to word clearly, completely, and specifically, and are free from ambiguity.**

The objectives should be listed under the following two headings:

- **Main objectives/major**
- **Sub objective /specific**

- **The Main objective is an overall statement of the thrust of your study.**
- **It is also a statement of the main associations and relationships that you seek to discover or establish.**
- **The sub objectives are the specific aspects of the topic that you want to investigate within the framework of your study.**

- **Make sure that each sub objective contains only one aspect of the study**
- **Use action oriented words or verbs when writing your objectives. The objectives should start with words such as ‘to determine’, ‘to find out’, ‘to ascertain’, ‘to measure’ and ‘to explore’.**
- **Be SMART when you state your objective**
- **The way the main objectives and sub objectives are worded determine how your research is classified *(descriptive, correlational or experimental):-***
- ***clear + complete + Specific + identify the main variables to be correlated + identify the direction of the correlation.***

Research Questions

- **Sarantakos (1998:119) emphasizes that choosing a research question is one of the first steps a researcher takes and believes it deserves serious considerations as *"… no research can be undertaken unless the research question is chosen and accurately defined".***
- **He also note that the research question *"… makes the theoretical assumptions in the framework more explicit, and most of all indicates what the researcher wants to know" .***

- **The notion of research question emanates from the effort to find a solution to the problem at hand.**
- **Naturally therefore, a question needs to be posed and the answer will be found during the study.**
- **A good statement of a problem must clarify what is to be determined or solved.**
- ***It must restrict the scope of the study to specific and workable research questions.***
- **The most important step in this direction is to specify the variables involved in the questions and define them in operational terms.**

The Hypotheses

- **Once the selection and definition of the problem have been accomplished, the derivation of working hypotheses is the most important step in the research process.**

What is hypotheses?

- **Hypothesis is defined as a proposition that is stated in testable form and predicts a particular relationship between two (or more) variables**

Derivation of Hypotheses

- **The inspiration for hypotheses comes from a number of sources which include the following:**
  - ***Experience***
  - ***Past research or Common beliefs***
  - ***Through direct analysis of data or deduction from existing theory.***
- **There are two types of developing hypothesis**
  - ***Induction***
  - ***Deduction***

- **Inductive hypothesis is a generalization based on observed relationships. Researchers observe certain patterns, trends or associations among phenomena and then use the observations as a basis for predictions.**

- **Deductive hypotheses: Through deductive reasoning, a researcher can develop hypotheses based on general theoretical principles. Deductive reasoning have as a starting point theories that are applied to particular situations.**

Types of hypotheses

- **Simple hypotheses**
  - Simple hypothesis is a hypothesis that expresses an expected relationship between one independent and one dependent variable.
- **Directional Hypotheses**
  - Directional hypothesis is one that specifies not only the existence but the expected direction of the relationship between variables.
- **Research Hypotheses**
  - Research hypotheses also referred to as substantive, declarative, or scientific hypotheses, are statements of expected relationships between variables
- **Complex Hypotheses**
  - is a prediction of a relationship between two (or more) independent variables and two (or more) dependent variables.
- **Non-directional Hypotheses**
  - Non-directional hypothesis by contrast does not stipulate the direction of the relationship.
- **Null Hypotheses**
  - Null hypotheses or statistical hypotheses state that there is no relationship between the independent and dependent variables.

Characteristics of a good hypothesis

- ***Testable***
- ***Logical***
- ***Directly related to the research problem***
- ***Represents a single unit or subject of the problem***
- ***Factually or theoretically based***
- ***States relationship between variables***
- ***Sets the limits of the study***
- ***Stated in such a form that it can be accepted or rejected***
- ***A hypothesis is composed of an independent variable (cause) and a dependent variable (effect)***

Forms of Stating Hypothesis

- **The statement of a research hypothesis can take either declarative (positive) form, negative form, the null form, or the question form.**
- **Positive form:**
- **H_{1-} The academic achievement of extroverts is significantly higher than that of introverts.**
- **H_2- Students who learn in small class size will perform significantly better in Mathematics test than who learn in large class size.**
- **H_{3-} Teaching Children through programmed instructional material will decrease their test anxiety.**

Negative form:

- ***H_1- The academic achievement of extroverts is not significantly higher than that of introverts.***
- ***H_2- Students who learn in small class size will not perform significantly better in mathematics test than those who learn in large class size.***
- ***H_3- Similarly stated.***

Null Form:

- **H1-There is no significant difference between the academic achievement of extroverts and introverts.**
- **H2 -There is no significant difference between students who learn in small class size and those in large class size in performing in mathematics test.**
- **H3 -Teaching children through programmed instruction material will have no effect on their test anxiety.**

- **Question form**:
- H1 -Will the academic achievement of extroverts be higher than that of introverts?
- H3 - Will teaching children through programmed instruction decrease their test anxiety?

THE RESEARCH PROPOSAL

- **After the selection of a research problem and setting proper direction for investigation, the researcher should write out a proposal, synopsis, or plan for research.**

<u>What is the Research proposal</u> ?

- **The research proposal is a systematic plan, which brings to focus the preliminary planning that will be needed to accomplish the purpose of the proposed study. It is just like a blueprint, which the architect peppers before the construction of building starts.**

The importance of research proposal:

- **It serves as a basis for determining the feasibility of the project.**
- **It provides a systematic plan of procedure for the researcher to follow.**
- **It gives the research supervisor a basis for guiding the researcher while conducting the study.**
- **It reduces the probability of costly mistakes.**

Components of the Research Proposal

- Three parts of proposal
  - ***A. The preliminaries***
  - ***B. The body***
  - ***C. The supplemental***

A.The preliminaries:

- **Title / cover page**
- **Table of content**
- **Abstract**

B. The Body

1. The problem and its Approach

1) Introduction

2) Statement of the problem

3) Objectives of the Study

4) Significance of the study

5) Delimitation of the study

6) Definition of used terms

7) Research methodology

8) Organization of the paper

2. Review of related literature

C. The supplemental

1) Budget and time schedule
2) Bibliography

A) The preliminaries

1) Title or cover page

- ✓ The title should not be too lengthy or too involved.
- ✓ The title should not be too brief or too short.
- ✓ The title should not be burdened by pompous words and should not include terms of unscientific; rhetorical, argumentative, emotional, or biased nature.

2) Table of content

- In this section the major and sub topics in the proposal should be appear along with the page number.
- It out line each topic and show the reader where each title is located in the proposal.

3) Abstract

- also known as *Executive summary*, *Synopsis*, *and also Epitome*.
- Present the highlight of the main aspects of the proposal concisely and clearly.
- Therefore, it starts by stating the problem to be solved through the purpose, expected outcomes, beneficiaries, expected impact of the work being proposed and the methods to be used.

B) The body of the proposal

1. THE PROBLEM AND ITS APPROACH

1) Introduction/Background:

This section should contain a rationale for your research which answers the following questions:

- Why are you undertaking the research project?
- Why is the research needed?

This rationale should be placed within the context of existing research or within your own experience and/or observation.

2) Statement of the problem

- **More specifically, statement of the problem is targeted towards the following:**
  - **stating the background facts, which justify the study to be in order:**
  - **developing hypotheses or key research questions, which may show the direction of the whole exercise**

3) Objectives of the study:

- **Typically very brief**
- **Both general and specific objectives**
  - **The general objectives provide a short summary of the scientific goal being pursued by the research**
  - **The specific objectives are operational in nature. They may indicate specific types of knowledge to be pursued.**

4) Significance of the study

- **The following are some of the points in which the justification stresses:**
  - **A wide time gap between the earlier study and the present one.**
  - **Existence of knowledge gaps that were uncovered by the previous studies.**
  - **Lack /Shortage of information about a problem.**

5) Definition of Terms or Concepts

- **The technical terms or words and phrases having special meanings need to be defined operationally by the help of special dictionaries.**

6) Delimitations of the Study

- **Boundaries of the study should be made clear with reference to:**
  - **the scope of the study by specifying the areas to which the conclusions will be confined, and**
  - **the procedural treatment including the sampling procedures, the techniques of data collection and analysis, the development of measuring tools and their use in the study.**

7) Limitations of the study

- **The possible sources of the limitations of the study include:**
- **Practical weaknesses in the methodologies the researcher adapted.**
- **Lack of access to the right data.**
- **Poor choice/development/ delivery of instruments**
- **Sampling restriction**
- **Lack of up-to-date literature in the areas**
- **Usual time borne situation in the study site**

8) Research methodology

- **Clearly indicate the methods of data collection either within a quantitative or qualitative methodology; as well as the techniques for data collection, e.g. questionnaires, and measurement (the validation of the techniques).**
- **A research proposal should clearly indicate the population from which the researcher will draw his/her sample, and describe the procedure he/she will use to select the sample.**

In this section, the researcher describes how to organize, analyze, and interpret data. The details of the statistical techniques and the rationales for using such techniques should be described in the research proposal.

- In brief it include:

  a)Research Design

  b)Sampling Design

  c)Data Collection

  d)Data Analysis

  e)Limitation

9) Organization of the study

- This section explains what each chapter of the research report consists of.
- Eg. The study will be organized into four chapters:
- The first chapter deals with the problem and its approach. The second chapter will be concerned with presenting the review of the related literature. The third chapter will threat the analysis of the data collected. The fourth chapter will bring to an end this study with summary, conclusion and recommendation.

2. REVIEW OF RELATED LITERATURE

- **The theoretical and empirical framework from which the problem arises must be briefly described.**
- **A brief resume of related studies found in journals, magazines, abstracts and reports should be made.**

c) The supplemental

1) Bibliography

This is a section where a list of books, journals and other documents is offered.

- **The researcher should list all reference materials that he has used in selecting the problem and which he may used during the conduct of study.**

2) Time Schedule

- **The researcher should also prepare a realistic time schedule for completing the study within the time available.**
- **Dividing a study into phases and assigning dates for the completion of each phase help the researcher to use his time systematically.**

3) Budget Schedule

- **The research proposals which are submitted to governmental or non-governmental organizations for financial assistance should also include a budget schedule.**
- **This is a financial breakdown that helps to estimate the cost of the study.**

THANK YOU !