- Course-M.A.Education
- Semester-4th
- Paper- 401
- Topic- RESEARCH DESIGN

INTRODUCTION

The research design is the conceptual structure within which research is conducted ; it constitutes the blue print for the collection , measurement and analysis of data.

- The research design provides the back bone structure of the study, it supports the study and hold it's together.
- The research design refers to the researcher overall plan for answering the research question or testing the research hypotheses.

PROCESS OF DESIGNING & CONDUCTING A RESEARCH PROJECT

- What--What was studied?
- What about--What aspects of the subject were studied?
- What for--What is/was the significance of the study?
- What did prior lit./research say?
- What was done--How was the study conducted?
- What was found?
- So what?
- What now?

Hence **Research Design** is:

- a framework for the research plan of action.
- a master plan that specifies the methods and procedures for collecting and analyzing the needed information
- a strategy for how the data

DEFINITIONS

- The Planned sequence of the entire process involved in conducting a research study .

- Miller

PURPOSES OF RESEARCH DESIGN

- It provides the scheme for answering research question.
- It maintains control to avoid bias that may affect the outcomes.
- It organize the study in a certain way defending the advantages of doing while being aware and caution about potential disadvantages .

ADVANTAGES

- Lead to more accurate results.
- Give optimum efficiency and reliability.

- Minimise the wastage of time as well as money.
- Instills confidence in the research.
- Provides satisfaction & success.

COMPONENTS

- Title of the study
- Statement of the problem
- Review of literature
- Area & Scope of Study
- Objectives of the study

- Formulation of hypothesis
- Definition of concepts
- Methodology
- Sampling design
- Constructing the schedule/Questionnaire

- Collection of data
- Analysis of data
- Interpretation of results
- Reporting the findings
- Time & Financial budgeting

Different Research Designs

1. Exploratory type research design
2. Descriptive type research design
3. Experimental type research design
4. Experimental type research design

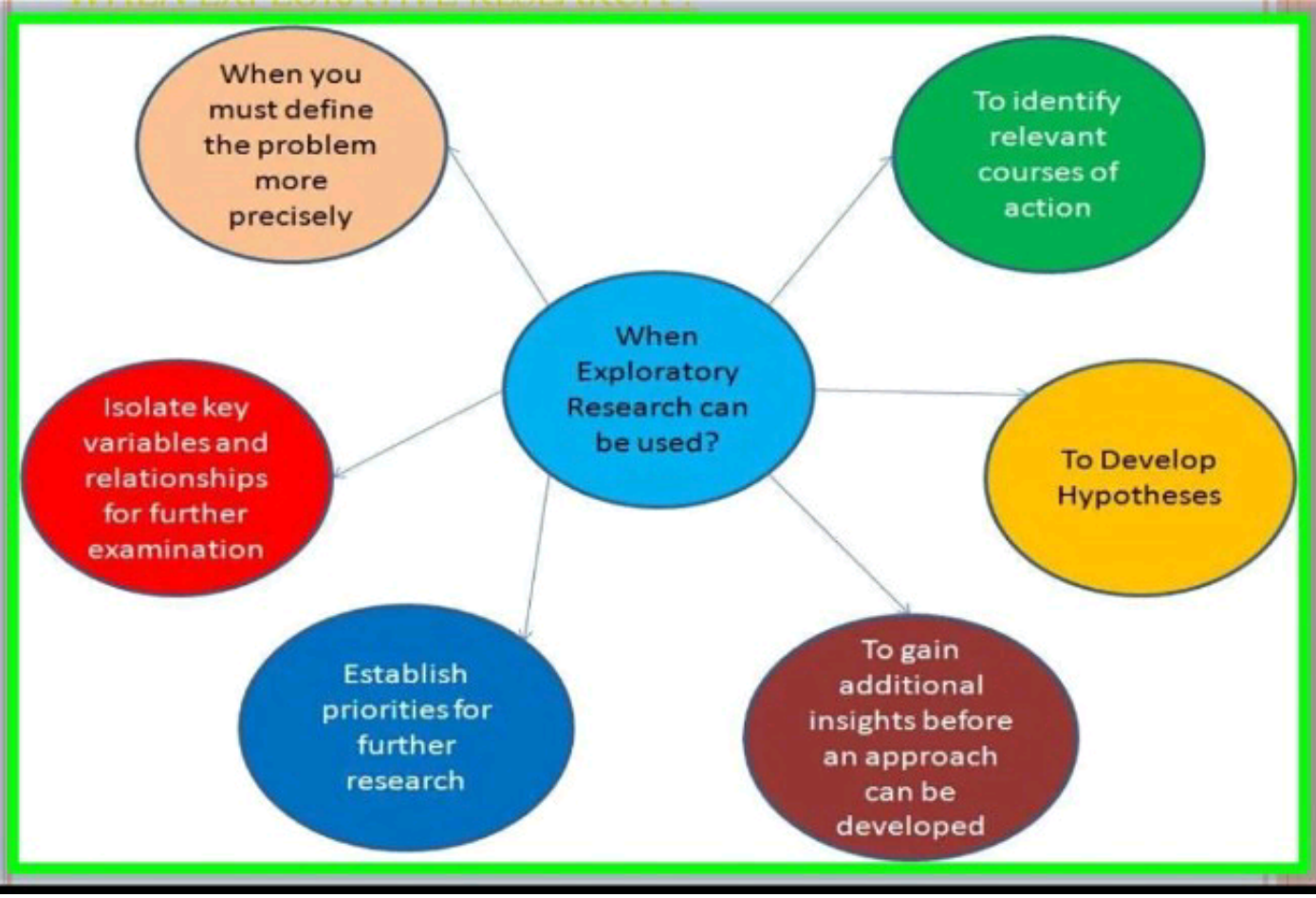
1) Exploratory type Research Design

- Explorative research studies are also termed as formulative research studies.
- Exploratory study is a systematic scientific approach which enables a social scientist to determine whether an idea is in reality or not.

- Explorative studies can provide ideas , hypothesis , suggestions that might never occur to the social scientist sitting in an office and mediating over the problem.
- More flexible.
- Done in the field whether there is little knowledge is available.

- Exploratory studies which do not sets limits for themselves have limits imposed by various practical matters.
- Mostly the results obtained through the explorative study are to be treated as a sign post for future and further study in the same or similar direction.
- For this reason , they are also known as formulative studies.

WHEN EXPLORATIVE RESEARCH ?



2) DESCRIPTIVE TYPE RESEARCH DESIGN

Rigid Design.

Probability sampling design.

Pre-planned design for analysis.

Structured instruments for collection of data.

Advanced decisions about operational procedure.

Research design in which the major emphasis is on determining the frequency with which something occurs or the extent to which two variables co vary.

- Enable researcher to describe picture of a phenomenon under investigation.
- Methodology involved – qualitative in nature producing descriptive data.
- Three approaches to enable to record/analyse the bahavioural patterns:

i. Participant observation.
ii. Personal documents.
iii. Unstructured interviewing.

4) Experimental type Research Design

- Professor R.A.Fisher's name is associated with experimental designs.
- It's origin in agricultural research was made by him when he was working in Rothamsted Experimental Station (Centre for Agricultura Research in Englan

- Experiment is a study in which the investigator manipulates or varies (called the independent variables) & measures other variables (called the dependent variables).

- When an experiment is possible it is the most effective method of testing a hypothesis.

i.e; one variable ‘X’ casually influences another variable ‘Y’

There are three basic principles of experimental designs :

1. The principle of replication
2. The principle of randomization
3. The principle of local control

1. The principle of replication

According to this , the experi should be repeated more than once.

Thus, each treatment is applied in many experimental units instead of one.

By doing so, the statistical accuracy of the experiments is incresed.

2. THE PRINCIPLE OF RANDOMISATION

This provides protection against the effects of extraneous factors by randomisation.

We may apply randomisation principle and protect ourselves against the effects of the extraneous factors.

3. THE PRINCIPLE OF LOCAL CONTROL

According to this principle, we first divide the field into several homogeneous parts, known as blocks, and then each such block is divided into part equal to the number of treatments.