

RESEARCH PROCESS

- Thinking & observation
- Identifying Evaluating And Formulating The Research Problem
- Extensive Literature Survey
- Writing a Primary Synopsis
- Identifying and Labeling Variables
- Setting up of Hypothesis
- Preparing the Research Design
- Determining the Sample Design
- Collection of Data
- Execution of the Project
- Processing Analysis & Interpretation of data by Statistical Methods
- Testing of Hypothesis
- Preparation of the Report or Thesis



THINKING & OBSERVATION

before you speak:

THINK

T is it true?

H is it helpful?

I is it inspiring?

N is it necessary?

K is it kind?



IDENTIFYING EVALUATING AND FORMULATING THE RESEARCH PROBLEM

1. Choose a correct problem

(a) Researcher's Familiarity

(b) guidance

(c) personal Interest

(d) Availability of data

2. Formulate the problem

3. Understanding and evaluating

4. Rephrase into meaningful terms

BY

Discussing the problem with
colleagues & Persons with
experience

Finding a Research Question

◆ From where ???????

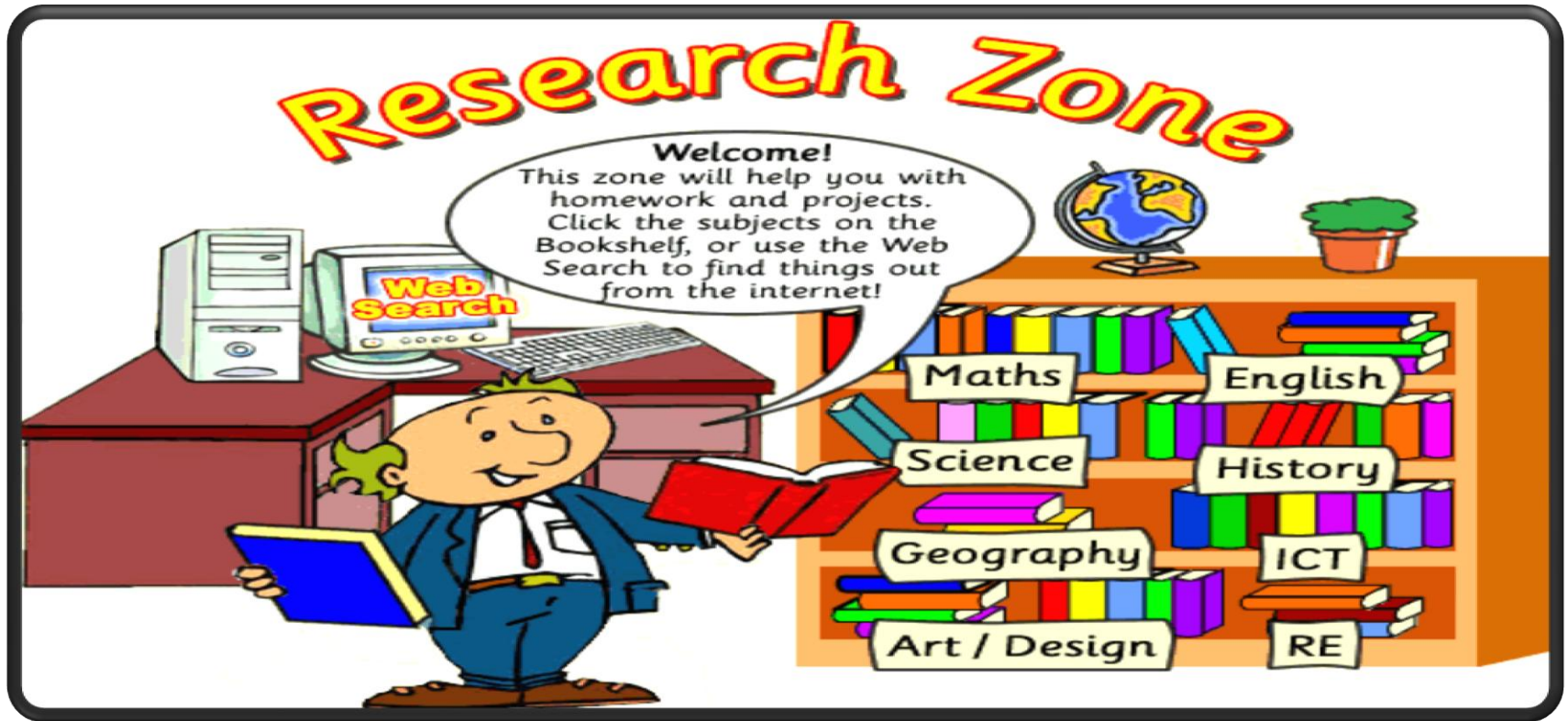
- Curiosity
- Information Gaps
- Controversy
- Replication
- Literature Review
- Other People
- ...???



EXTENSIVE LITERATURE SURVEY

❖ All available literature

1. Conceptual Literature: Concepts & theories
2. Empirical Literature : Earlier Studies (Facts & Figures)



Writing a Primary Synopsis

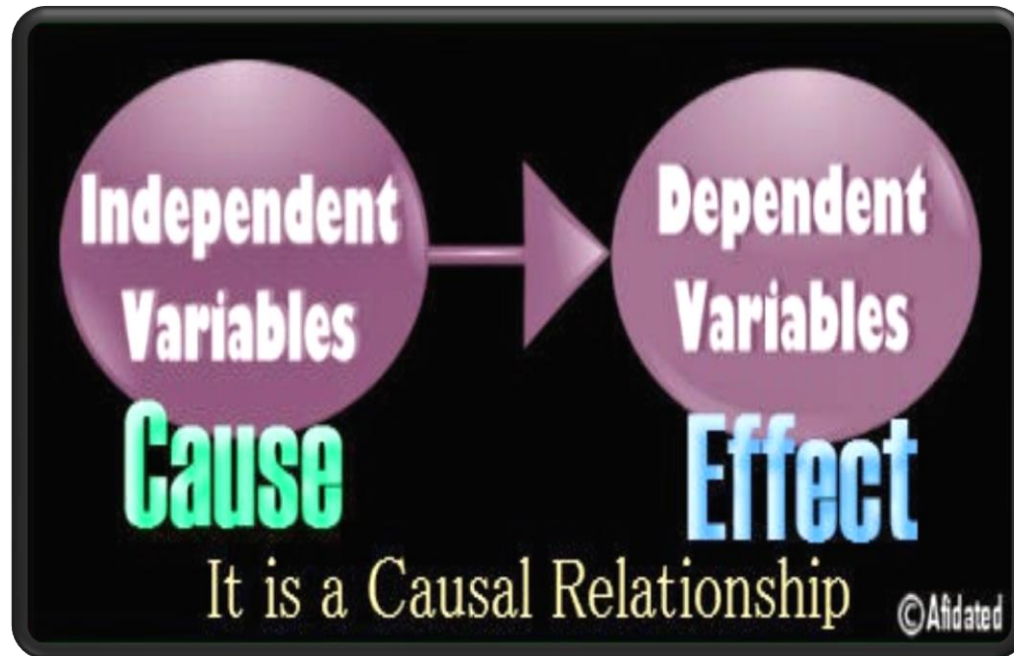
1. Summary of what is going to be done under research
2. Academic Journals, Conferences, Proceedings, Government Reports Books etc
3. Earlier Researches
4. Personal documents, Public documents, Copy drafts

The Synopsis



IDENTIFYING AND LABELING VARIABLES

- ❖ Cause & effect relationship between variables
- ❖ Independent variable : Whose change has effected the other
- ❖ Dependent variable : Variable which has the effect



Setting up of



- ❖ Tentative conclusion logically drawn
- ❖ Specific and Limited to the scope of research



PREPARING THE RESEARCH DESIGN

- Is a plan that specifies the sources and types of information
- The approach gathered for the problem
- Time & cost budget
- What to do, when to do,
- Minimum expense & minimum time

Contains

- Clear statement of research problem
- Procedure and techniques to be used for gathering information
- population to be studied
- Methods to be used in processing and analyzing the data



DETERMINING THE SAMPLE DESIGN

- ✓ It is a definite plan determined before any data are actually collected for
- ✓ obtaining a sample from a given univers

Methods

- ✓ Simple random sampling
- ✓ Stratified sampling
- ✓ Systematic sampling



COLLECTION OF DATA

Observation method

Direct personal interview method

Telephone interview method

questionnaire method

Schedule method

Choice depends on

- **Nature of investigation**
- **financial resources**
- **Time**
- **Accuracy**



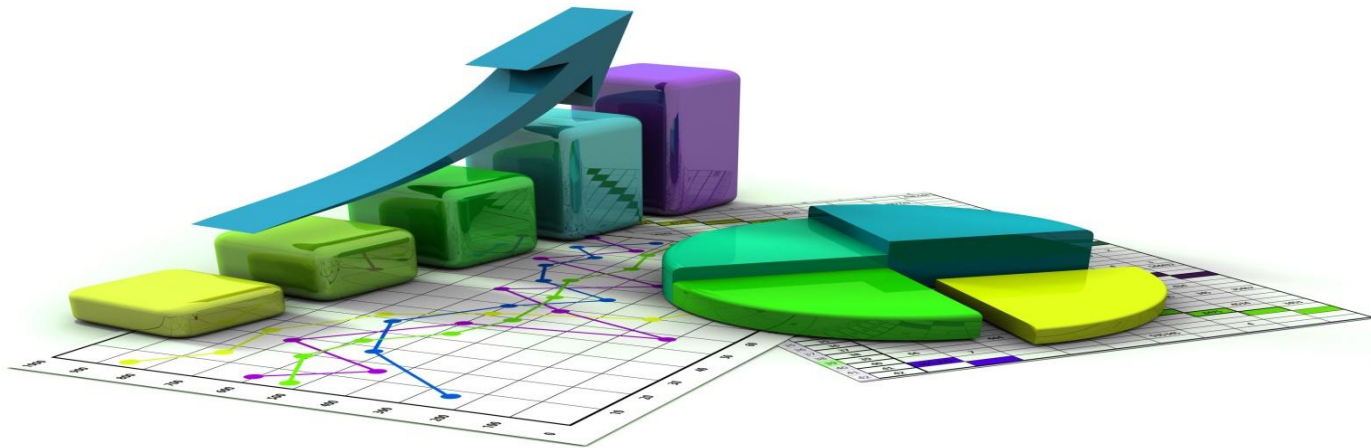
➤ EXECUTION OF THE PROJECT

- Executed in a systematic manner
- If questionnaire ,interview
- Statistical control techniques





PROCESSING ANALYSIS & INTERPRETATION OF DATA BY STATISTICAL METHODS

- ❖ Classification ,tabulation & coding
- ❖ Condensed into few manageable and purposeful groups and tables
- ❖ Coding converts data into symbols and small figures
- ❖ Editing improves quality
- ❖ Irrelevant dropped
- ❖ Observation ,analysis, conclusion, induction & deduction.
- ❖ Averages co-efficient of correlation
- ❖ Analysis of variance test of significant difference



TESTING OF HYPOTHESIS

- ❑ T-test, f-test, x2 tset etc.
- ❑ Accepting or rejecting hypothesis
- ❑ Proving validity
- ❑ formulating a truthful hypothesis
- ❑ Contribution to existing theory or generation of new theory

Measuring Power of a Hypothesis Test		
H_0	True	Not True
Accept		Type II Error
Reject	Type I Error	

PREPARATION OF THE REPORT OR THESIS

- ❖ A detailed description of what has been done ,
how it has been done.

contents

- ❖ Preliminary section : titles, date, acknowledgement, foreword
table of contents
- ❖ Main body : introduction, methodology, statement of findings,
conclusions & recommendations
- ❖ End matter: appendix, literature selected, bibliography

