



Introduction to Research: General Concepts

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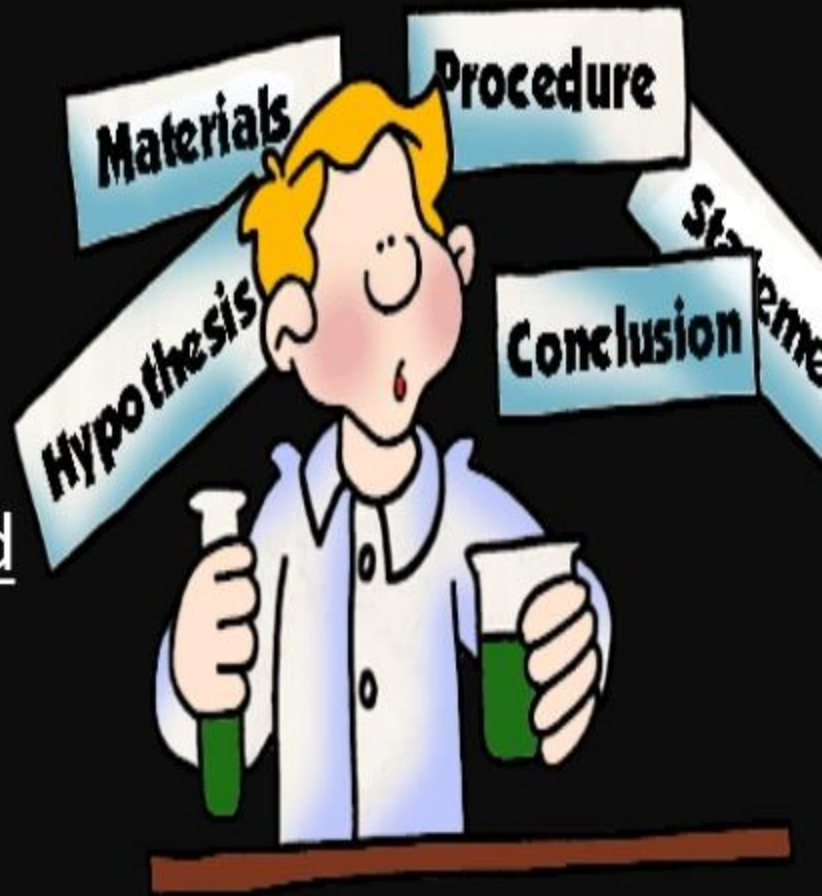
Introduction to Research: General Concepts



- ☐ What is research?
- ☐ Characteristics of the Scientific Method
- ☐ Characteristics of Scientific Knowledge
- ☐ General Approaches to Research
- ☐ Types of Research in Public



- Research is an organized inquiry carried out to provide information for solving problems.



What is research?



Re



again

Search



find

Process



- ✓ Step by step
- ✓ Phases



Research

formal

informal



I will find
what you
need





Is a process in looking at solution of a given problem which can be used as basis for :

- ✓ policy formulation
- ✓ policy enhancement or improvements



But before you can come up with POLICY, it should be back up with empirical (observed) data which requires the process of research

What is research?



Research is the systematic process of collecting and analyzing information to increase our understanding of the world in general and of the phenomenon under study in particular.

Why conduct research?

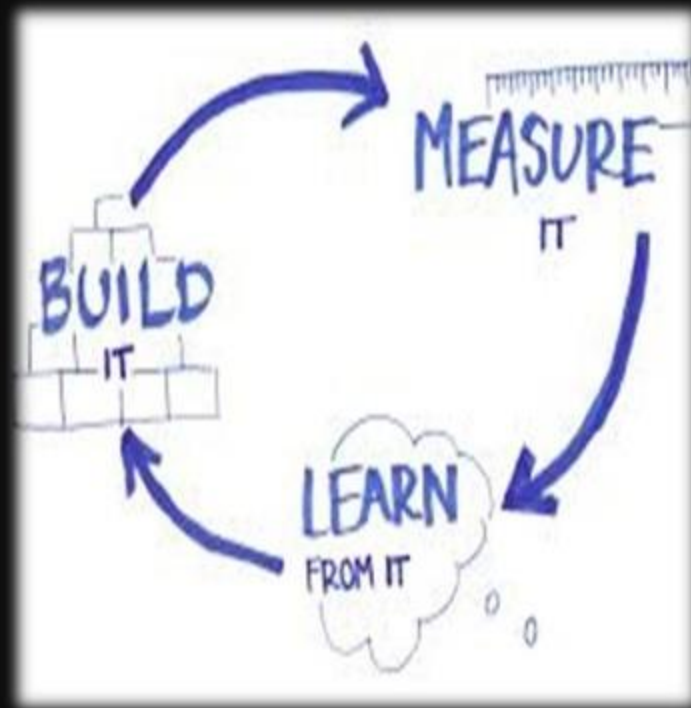
Students, professors, researchers, research centers, government, practitioners, newspaper people, TV networks, market research firms, schools, hospitals, social service, political parties, consulting firms, HR departments, public interest organizations, insurance, law firms conduct research as part of their jobs, **to be better informed, less**

Therefore,

RESEARCH concerns
with WHAT (facts and
conclusions) and HOW
(scientific; critical
components).



Research is a iterative



Iterative
Design

Design

Characteristics of the Scientific Method

1. Tentative (constant review)

2. Empirically verifiable (researchable)

3. Ethically neutral (what harm or risk involved to respondents, confidentiality and privacy?)



Purpose of Research



- ☐ explore
- ☐ describe
- ☐ explain

Types of Research

1. According to Purpose



- ☐ Fundamental/Pure/Basic
 - Lab research
- ☐ Applied
 - evaluation
 - action

Basic



- starting point for the search of new knowledge.
- provides a foundation for knowledge and foundations that are generalizable to many policy areas, problems or area of study

- research is driven by a scientist's curiosity or interest in a scientific question. The main motivation is to expand man's knowledge, not to create or invent something. There is no obvious commercial value to the discoveries that result from basic research.

□ For example, basic science investigations probe for answers to questions such as:

Life Cycle of Slime Mold



Applied Research

- refers to scientific study and research that seeks to solve practical problems. Applied research is used to find solutions to everyday problems, cure illness, and develop innovative technologies, rather than to acquire knowledge for knowledge's sake.
- For example, applied researchers may investigate ways to:

the power to heal our future
INSPIRING GREEN TECHNOLOGY



- application of the methods, ideas, theories from basic research
- Want to apply and tailored knowledge to address a specific practical issue;
- towards development of more efficient technologies or particular way of doing things.



Action

– advances the aims of basic and applied research to the point of utilization.

-concerned with the production of results for immediate application or utilization.

-it improves practices and methods and generates



Correlational Research

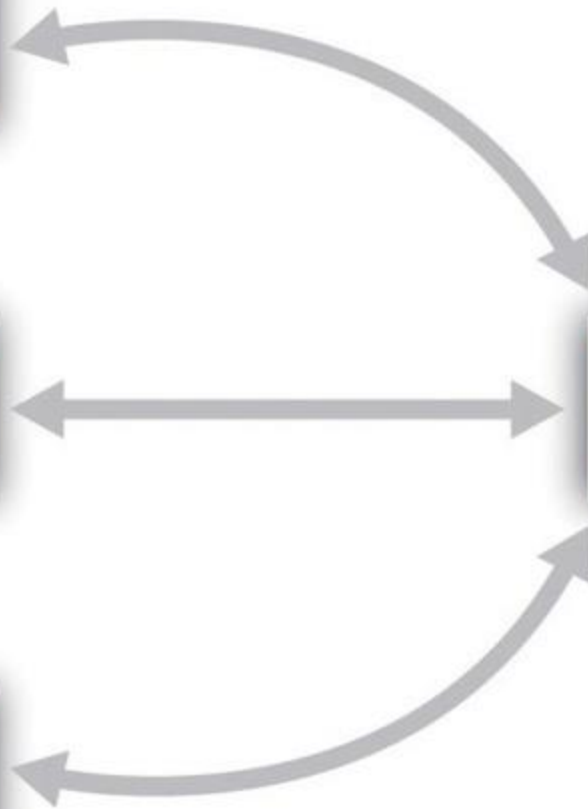
- refers to the systematic investigation or statistical study of relationships among two or more variables, without necessarily determining cause and effect.
- It Seeks to establish a relation/association/correlation between two or more variables that do not readily lend themselves to experimental manipulation.
- For example, to test the hypothesis “ Listening to music lowers blood pressure levels” there are 2 ways of conducting research

Salary

**Job
satisfaction**

**Years
employed**

**Job
performance**



According to Methods

Historical – The purpose is to collect, verify, synthesize evidence to establish facts that defend or refute your hypothesis. It uses primary sources, secondary sources, and lots of qualitative data sources such as logs, diaries, official records, reports, etc. The



Historical Research

- *Historical research is research involving analysis of events that occurred in the*

Application

- Historical research can show patterns that occurred in the past and over time which can help us to see where we came from and what kinds of solutions we have used in the past.
- Understanding this can add perspective on how we examine current events and educational practices.

The steps involved in the conduct of historical research

Here are the five steps:

1. Identification of the research topic and formulation of the research problem or question

Descriptive Research

- refers to research that provides an accurate portrayal of characteristics of a particular individual, situation, or group. Descriptive research, also known as **statistical research**.
- These studies are a means of discovering new



Descriptive – It attempts to describe and explain conditions of the present by using many subjects and questionnaires to fully describe a phenomenon. Survey research design /survey methodology is one of the most

- In short descriptive research deals with everything that can be counted and studied, which has an impact of the lives of the people it deals with.

For example:

- finding the most frequent disease that affects the children of a town. The reader of the research will know what to do to prevent that

Case and Field Research Design

- Also called *ethnographic* research, it uses direct observation to give a complete snapshot of a case that is being studied. It is useful when not much is known about a phenomenon. Uses few subjects.



Developmental or Time Series Research Design

- Data are collected at certain points in time going forward. There is an emphasis on time patterns and longitudinal growth or change.



Quasi Experimental Research Design

- This research design approximates the experimental design but does not have a control group. There is more error possible in the results.



Experimental Research

is an objective, systematic, controlled investigation for the purpose of predicting and controlling phenomena and examining probability and causality among selected variables.

- **Experimental Research Design** - This design is most appropriate in controlled settings such as laboratories. The design assumes ***random assignment*** of subjects and random assignment to groups (E and C). It attempts to explore cause and affect relationships where causes can be manipulated to produce different kinds of effects. Because of the requirement of random assignment, this



- The simplest experimental design includes two variables and two groups of participants.
- **The two variables (Independent versus Dependent variables).**
- The IV is the predictor variable whereas the DV is the outcome variable.
- Researchers manipulate and control the IV to

- **The two groups of participants (Control versus Experimental group).**
- Before beginning the experiment, the researcher (randomly) assigns his/her sample to two different groups: the control group and the experimental (treatment group or clinical group).
- The control group receives no manipulation of the IV (no treatment) whereas the

Causal Comparative or Ex Post Facto Research Design

- This research design attempts to explore cause and affect relationships where causes already exist and cannot be manipulated. It uses what already exists and looks backward to explain



Correlational or Prospective Research Design

Correlational or Prospective Research Design -

It attempts to explore relationships to make predictions. It uses one set of subjects with two or more variables for each.



- Exploratory research can be quite informal, **relying on secondary research** such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management or competitors, and more formal approaches through in-depth interviews, focus groups, projective methods, case studies or

Exploratory Research

- is a type of research conducted for a problem that has not been clearly defined. Exploratory research helps determine the best research design, data collection method and selection of subjects.
- The results of exploratory research are not

Phenomenological Research

- an inductive, descriptive research approach developed from phenomenological philosophy; its aim is to describe an experience as it is actually lived by the person

- **Phenomenology** is concerned with the study of experience from the perspective of the individual, 'bracketing' taken-for-granted assumptions and usual ways of perceiving.
- They are based in a paradigm of personal knowledge and subjectivity, and emphasise the importance of personal perspective and interpretation.
- As such they are powerful for understanding subjecti

Purpose of Research



explore



describe



explain

General Approaches to Research



1. Qualitative

2. Quantitative

General Approaches to Research

In social sciences and later in other disciplines, the following two research methods can be applied, depending on the properties of the subject matter and on the objective of the research



Qualitative

understanding of human behavior and the reasons that govern such behavior, involves analysis of data using words (e.g., from interviews), pictures (e.g., video), or



Quantitative

involves analysis of numerical data and their relationship

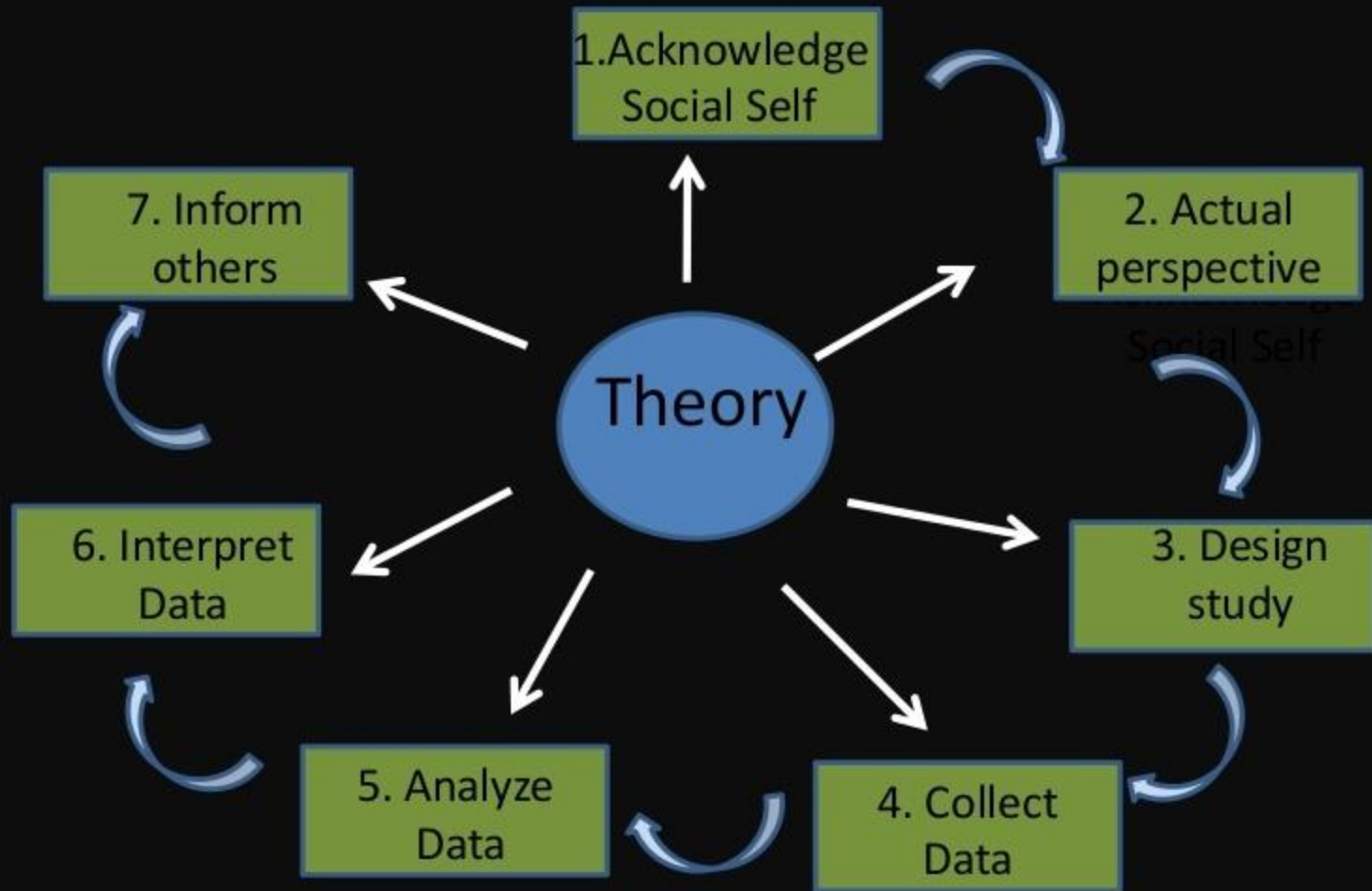
Qualitative research is research dealing with phenomena that are difficult or impossible to quantify mathematically, such as beliefs, meanings, attributes, and symbols

Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behavior. The qualitative method investigates the why and how

- Quantitative research is generally made using scientific methods, which can include:
- The generation of models, theories and hypotheses
- The development of instruments and methods for measurement
- Experimental control and manipulation of variables

1. Qualitative

- inductive- from fact to theory
- explore factors that could explain why a given event occurs
- establish patterns/develop theory for understanding how and why an event occurs

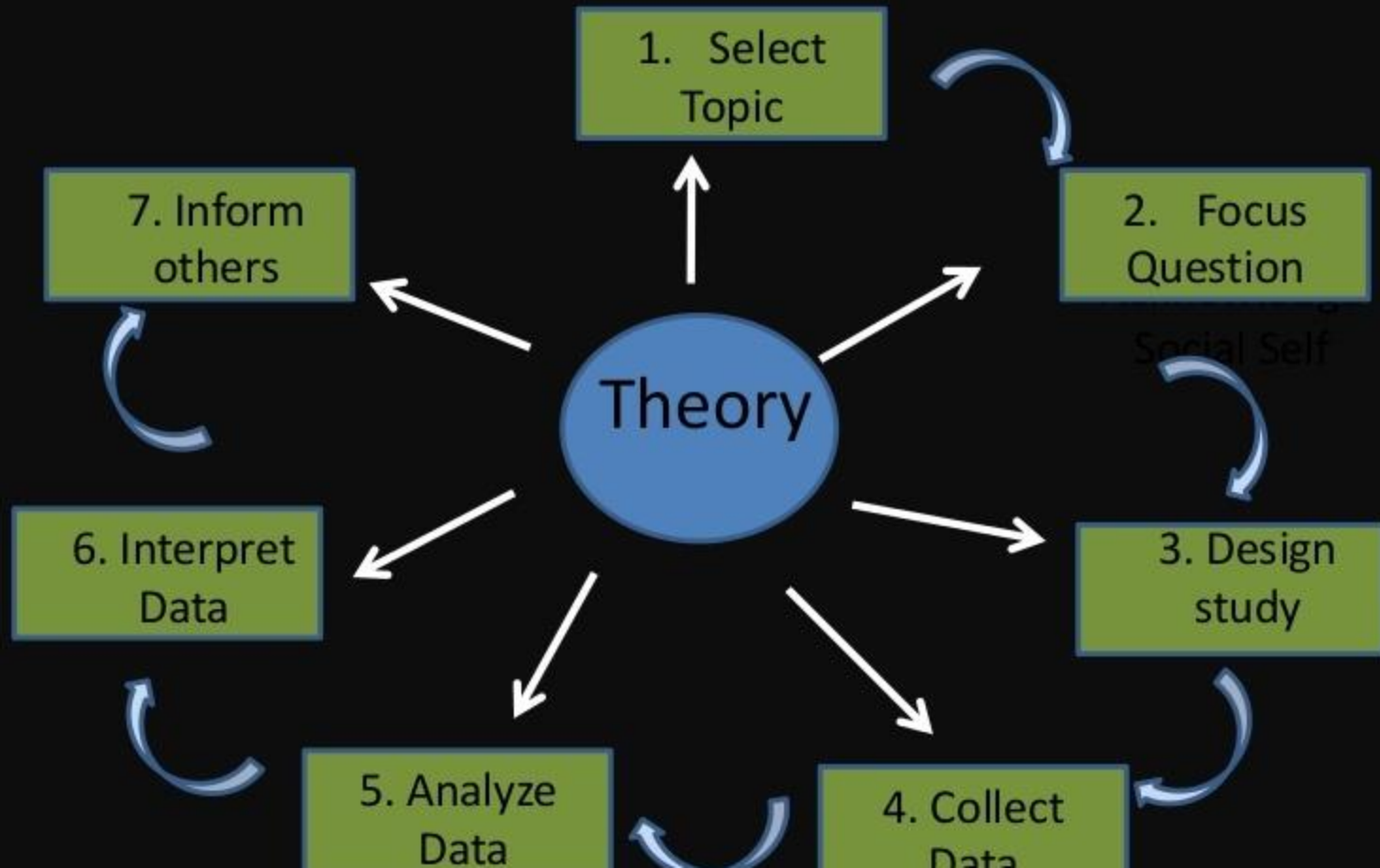


2. Quantitative

- deductive – from theory to fact
- establish cause-effect relationship
- relate occurrence of a variable with other variables
- Establish generalizations for prediction and control

Quantitative Research

- refers to the systematic empirical investigation of any phenomena via statistical, mathematical or computational techniques. The objective of quantitative research is to develop and employ mathematical models, theories and/or hypotheses



General Approaches to Research



Mixed Method Approach
Qualitative + Quantitative

Types of Research in Public Administration

Social sciences – anthropology (the study of humankind, in particular.

the comparative study of human societies and cultures and their development), psychology (study of the mind and behavior), Ex.

The 7 habit of emotionally Intelligent People?



Types of Research in Public Administration

political science, and sociology, involving the study of people, their belief, behavior, interaction, institutional, etc.



Comparative politics studies the politics, governments and culture of different countries and focuses on how government and politics actually operate

examines the country's system of government, including its presidents, cabinets, parliament, political parties, voting

Types of Research in Public Administration



Policy and program

- ☐ Needs assessment
- ☐ Process evaluations
- ☐ Outcome evaluations

Workshop # 1: Brainstorming & Mind-mapping

identify issues/concerns/problems in
their community and identify
appropriate type of research that can be
used to answer or solve the problem



Difference Between Issues and Problems

issue, you generally can readily come up with the solution. A **problem**, on the other hand, is not something that you can solve without forethought, and even a certain amount of guesswork.

An issue is smaller, not life altering, and it doesn't present such a degree of difficulty that you have to seek out the counsel of others in order to figure out the impact of the issue. A problem is larger in scale, often large enough to alter your life either temporarily or permanently. A problem can easily require the advice and guidance of those around you, in order to solve it.

On a corporate or governmental level, an issue is something that can be handled behind closed doors, impacting no one but the people of highest



Issues
/concerns
/problems

Type of
research





Issues & Concerns	Type of Research
1. Tardiness of councilmen	Applied (Action)



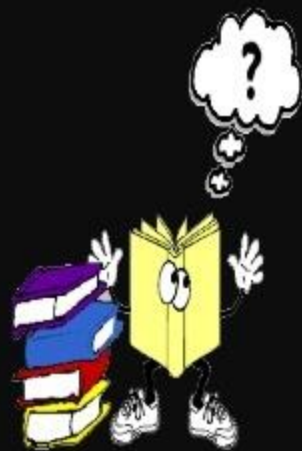
Problems	Research design
1. Poverty	Applied (evaluation)
2. Service Delivery	Applied (social impact)

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Reporting
one hour