Introduction to Research:
General Concepts

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 Administration

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

- It is the cornerstone of every science.

What is research?

Re Search Process

again

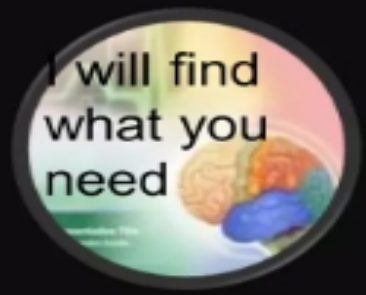
find

- ✓Step by step
- ✓Phases

formal

Research

informal



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.

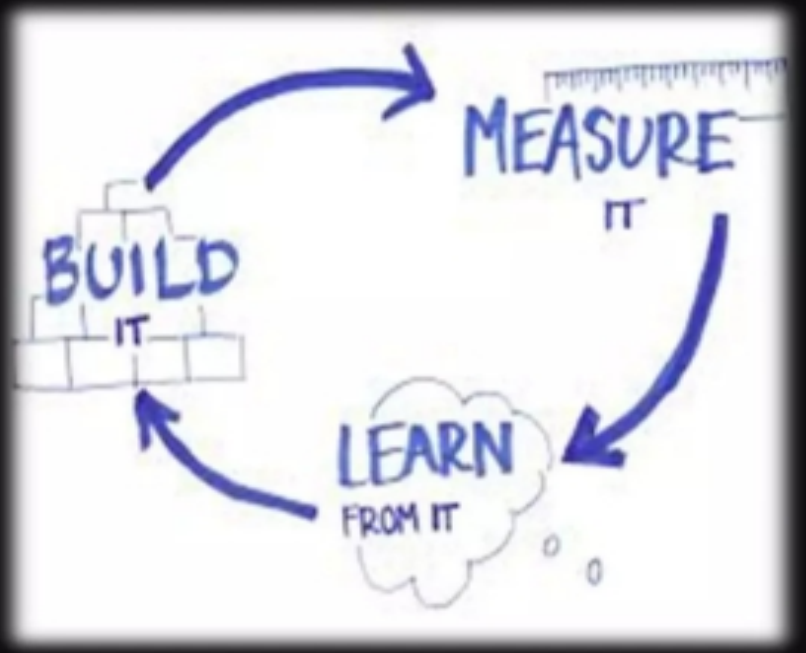
Why conduct research?

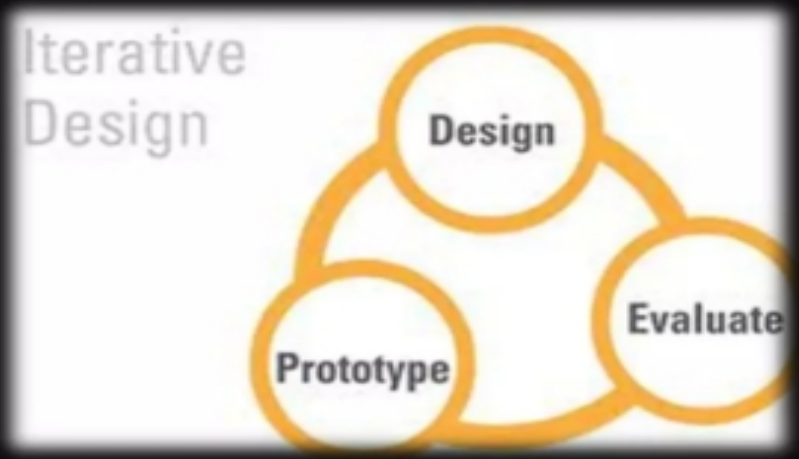
Students, professors, researchers, research centers, government, practitioners, newspaper people, TV networks, market research firms, schools, hospitals, social service, political parties, consulting firms, HR departments, public interest organizations, insurance, law firms conduct research as part of their jobs, to be better informed, less biased decisions, in contrast to guessing, hunches, intuition, and other personal experience.

Therefore,

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

Research is a iterative process that eventually seeks to explain or solve an identified problem.





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?)
4. Shared and made public

Purpose of Research

- ❑ explore
- ❑ describe
- ❑ explain

Types of Research

1. According to Purpose
   - ❑ Fundamental/Pure/Basic
     - Lab research
   - ❑ Applied
     - evaluation
     - action
     - social impact

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

- Source of the tools – methods, theories, ideas

- 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:
- ❑ How did the universe begin?
- ❑ What are protons, neutrons, and electrons composed of?
- ❑ How do slime molds reproduce?
- ❑ What is the specific genetic code of the fruit fly?


Life Cycle of Slime Mold
spore
slug
sorocarp
emerging amoeba
aggregated amoebae
amoeba
pseudo-plasmodium
aggregating amoebae

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: Improve agricultural crop production
- Treat or cure a specific disease
- Improve the energy efficiency of homes, offices, or modes of transportation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Alternative
Energy
15+ Hours
Transportation
15+ Hours
Construction
15+ Hours

— 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.
- Address issue of application
- It asks “does it work”

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 technologies and innovations for application to specific technological situations.

-the emphasis is here and now

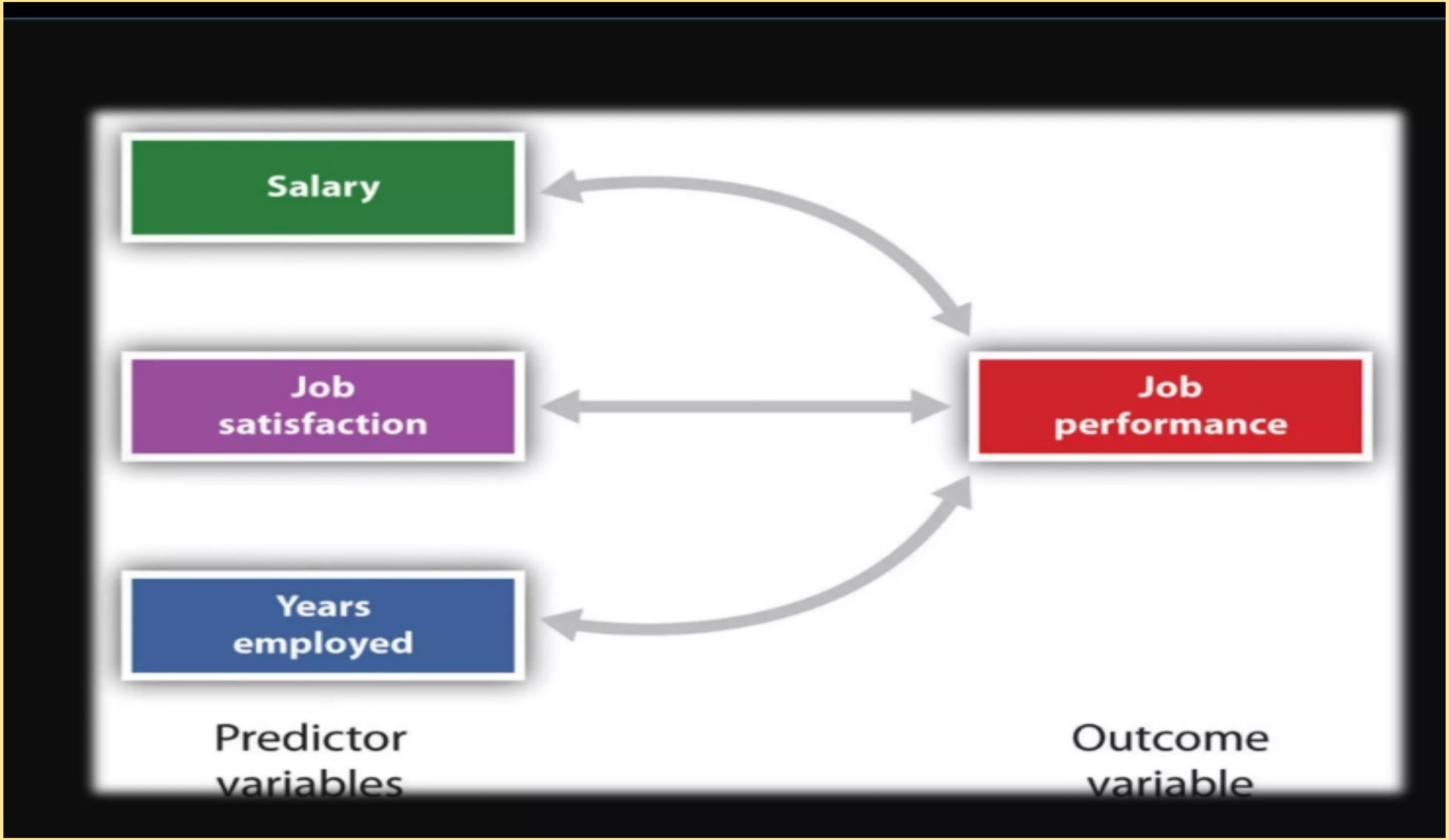
Correlational Research

— 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

- Experimental – group samples and make one group listen to music and then compare the bp levels
- Survey – ask people how they feel ? How often they listen? And then compare


Salary
Job satisfaction
Years employed
Job performance
Predictor variables
Outcome variable

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 limitation is that the sources must be both authentic and

Historical Research

- ***Historical research*** *is research involving analysis of events that occurred in the remote or recent past*

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.
2. Data collection or literature review
3. Evaluation of materials
4. Data synthesis
5. Report preparation or preparation of the narrative exposition

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 meaning, describing what exists, determining the frequency with which something occurs, and categorizing information.

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 popular for thesis/dissertation