

SESSION #2: METHODS OF RESEARCH: AN OVERVIEW

The purpose of research is to try to uncover answers to questions through the application of scientific procedures.

We talked about the scientific method in last week's class: basically, this process involves four stages: **What are these?**

- **Phenomena: Starts with a question:** Is there something important about your field that you want to develop a better understanding of?
- **Theory: Why or how** might we explain the phenomenon?

What are the possible physical, social, economic, psychological, perspectives that can help explain how or why the process works?

- **Hypothesis:** What concrete and specific **prediction** can I make about the phenomena from the theory?

What do I expect to discover or find?

- **Research Methodology:** What empirical methods will I use to test the hypothesis I have formulated?

Types of Research:

1. Descriptive vs. Analytical:

Descriptive research includes surveys and fact-finding.

- **Focus** is to get a measure of a situation, opinions, etc. at a point in time, such as the present.
- **Main characteristics:** The researcher has no control over the variables – he/she can only report on what is happening, on what subjects are doing or thinking at the moment.

- Examples here would be studies that seek to determine what people's preferences are for particular activities or products; how frequently they shop; or the average amount of time they work per week.
- A form of this method is called ***Ex post facto research***, in which studies try to discover the causes of behavior or events, even when there is no way to control for the variables being measured.
- What kinds of methods are used in Descriptive Research? These include: survey methodology; comparative studies and correlational analysis.

Surveys: Example – Questionnaire design for a particular purpose.

Case studies: An evaluation of the effectiveness of a particular project which is typically a subjective evaluation and assessment. Case studies can also examine the decision making and division of labor; hierarchies of power in small communities; ethnographic studies.

Observational research: Observing behavior of individuals in a group or in a particular setting; observing how they interact with one another; how the group makes decisions; observations of social interaction and _____ among people in a community setting; observations about how people make decisions about purchases, etc.

For example: You decide to spend one hour observing , documenting and describing what students do in the open space in the ground floor of the Atrium building.

- 2. Analytical:** The researcher must use facts or information that is already available and analyze these with the goal of formulating a critical evaluation.
- 3. Applied:** Applied research seeks to find a solution to a key problem facing a society or an industry or business.

Ex: “How can our society systematically begin to significantly reduce carbon emissions to slow the pace of climate change?” or “What would be the most effective policy to strengthen the Social Security System for future generations?” or “What would be the most energy efficient and aesthetically appealing design for a new residential or commercial building?”

Research that seeks to identify social, economic or political trends that may affect a particular institution, such as a business, or marketing research and evaluation research are examples of applied research.

The goal, then, of applied research is to discover a solution for a critical practical problem.

- 4. Fundamental Research:** Collecting and gathering knowledge for the sake of gaining more knowledge on a subject.

Examples: Research into a natural phenomenon such as ...
or Research studies of human behavior that are conducted with the purpose of formulating generalizations about that behavior: for example, **Observing that individuals interacting in small groups tend to informally select someone who guides and takes the initiative.**

Fundamental research is focused on finding information that has broad applications and may add to an existing organized body of knowledge.

- 5. Qualitative:** Qualitative research is concerned with phenomena related to quality:

Example: In investigating the reasons for human behavior – why people think or behave in certain ways.

Motivational Research is a type of qualitative research which seeks to discover underlying motives or desires for certain behavior often uses **in-depth interviews** to obtain more information and understanding.

Using this method of research can help us analyze the influences that motivate people to behave in a particular way or that make people either like or dislike a particular thing.

6. **Quantitative:** By contrast, quantitative research is based upon the analysis of characteristics or variables that can actually be measured.

For example: How are level of educational attainment, level of training and years of experience correlated with current earnings?

In this instance, if we have a sample of 500 individuals we are studying, it is possible to measure each of these variables for the 500 individuals in the study: **Educational Attainment**

- less than high school
- high school diploma
- some college
- Bachelor's Degree
- Advanced degree

Level of training (and we would need to define what we mean by "level."
For instance:

- Introductory
- Intermediate
- Advanced

Years of experience

- None
- 1 – 3
- 3 – 5
- 5 – 10
- More than 10

Also, is it possible to formulate a *hypothesis* here? What would we expect to find?

7. Empirical: Empirical research relies upon experience or observation without use of a particular theory. It is research that is primarily data-driven.

Conclusions then are based upon being able to verify findings through observation or experiment. This is **also an experimental type of research.**

What needs to be done?

- Start with a working hypothesis or expectation about probable results or outcomes.
- Collect data that will hopefully prove or that disprove the hypothesis.
- Set up an experimental design that is believed to effectively reveal the desired information or outcome.
- This kind of research is characterized by the researcher's control over the variables being studied and deliberate manipulation of them to study its effects.

Empirical research is appropriate when there is a need to prove that certain variables have an effect on other variables in some way.

Evidence gathered in experiments or empirical studies are considered to be the most powerful in testing a given hypothesis.

8. Other types of research:

Longitudinal Research: Research on changes that take place over a period of time. This often involves studies of population groups that are tracked over several years.

For example: The Income and Retirement Study;

What research techniques are used?

Focus group interviews: Focus groups typically have on average 8-10 participants.

"Focus groups are a form of [qualitative research](#) that is used most often in [product marketing](#) and [marketing research](#). During a focus group, a

group of individuals – usually 6 - 12 people – is brought together in a room to engage in a guided discussion of some topic”.¹

Focus groups are also **used frequently in the early stages of political campaigns** for President or other high offices to gauge voters’ viewpoints on a variety of issues. The information gathered is often used in shaping campaign issues.

¹ <http://sociology.about.com/od/Research-Methods/a/Focus-Groups.htm>