

Theory and other Concepts Related to Research

The close connection between theory and research cannot be neglected, especially in social sciences. We read and listen word ‘theory’ or ‘use of theories’ in researches. Sometimes, people ask researchers which theory or theories are the basis for their researches? So, it is necessary to know the meaning and concept of theory specially in perspective of research.

Theory is defined by different scholars as:

“A generalization about a phenomenon that explains how or why the phenomenon occurs.” Frey, Botan, Friedman, & Kreps (1991)

"A system of generalizable statements that are logically linked together to understand or predict human phenomena." Kim (1995)

Theories are formulated to explain, predict, and understand phenomena. In many cases, theories are developed to challenge and extend existing knowledge. Here, it must be understood that theories could be formulated through researches. It is said that theory development relies on research, and research relies on theory. According to Brown (1977), the relationship between theory and research is to find truth through an investigation. In that relationship, theory guides what data are to be collected which is possible through research and research findings provide challenges to accepted theories. Some people say that research is neither more nor less than the vehicle for theory development. It is the method used to gather the data needed for the theory.

Often, a theory is an answer to a ‘Why?’ question. For example, why are some people poor and others rich; why are so many people unemployed in low income societies? A good theory can be used to explain these phenomena. Suppose that someone proposed a theory of unemployment that the rate of unemployment depends on literacy rate. Then the theory could be offered as a reasonable answer to a question about why there are now so many people unemployed because illiteracy rate is high. Many people might want to know more than this

simple answer. Again research could be conducted to test the application of that existing theory.

Theory development process

- **Theory-practice-theory:** For example, take existing theory in community development, apply to community problem solution and develop new theory
- **Practice-research-theory:** For example, it is seen that how community problems are being dealt, research is conducted and developed a theory from the results.
- **Theory-theory-research/practice:** In some cases an initial theory is built to develop a second theory, then is applied and tested.

Induction

When we go through a systematic process and find some results about any event or phenomena and then observe the same relationship in several more cases and finally construct a general theory, it is known as induction. Researchers move from data to theory, or from the specific to the general. Once a theory has been formulated, it can be used to explain. For example, the theory about suicide rates being high in countries with high rates of unemployment can be used to explain why any low income country has a high suicide rate.

Deduction

The process, starting with a theory and using it to explain particular observations, is known as deduction. Deduction takes the data about a particular case and applies the general theory in order to get an explanation for the data. Researchers move from a more general level to a more specific one. We can say that induction is the technique for making theories and deduction is the technique for applying them.

Variable

Very simply, a **variable** is a measurable characteristic that varies. It may change from group to group, person to person, or even within one person over time. There are mainly two types of variables:

The variable that is varied or manipulated by the researcher is called the **independent variable**. The variable that is not manipulated and is observed or measured is called the **dependent variable**.

An independent variable is the presumed cause, whereas the dependent variable is the presumed effect. Dependent variable is observed or measured for variation as a presumed result of the variation in the independent variable. "In non-experimental research, where there is no experimental manipulation, the independent variable is the variable that 'logically' has some effect on a dependent variable. For example, in the research on cigarette-smoking and lung cancer, cigarette-smoking, is the independent variable."