

TOPIC- Classification of Research Based on Method

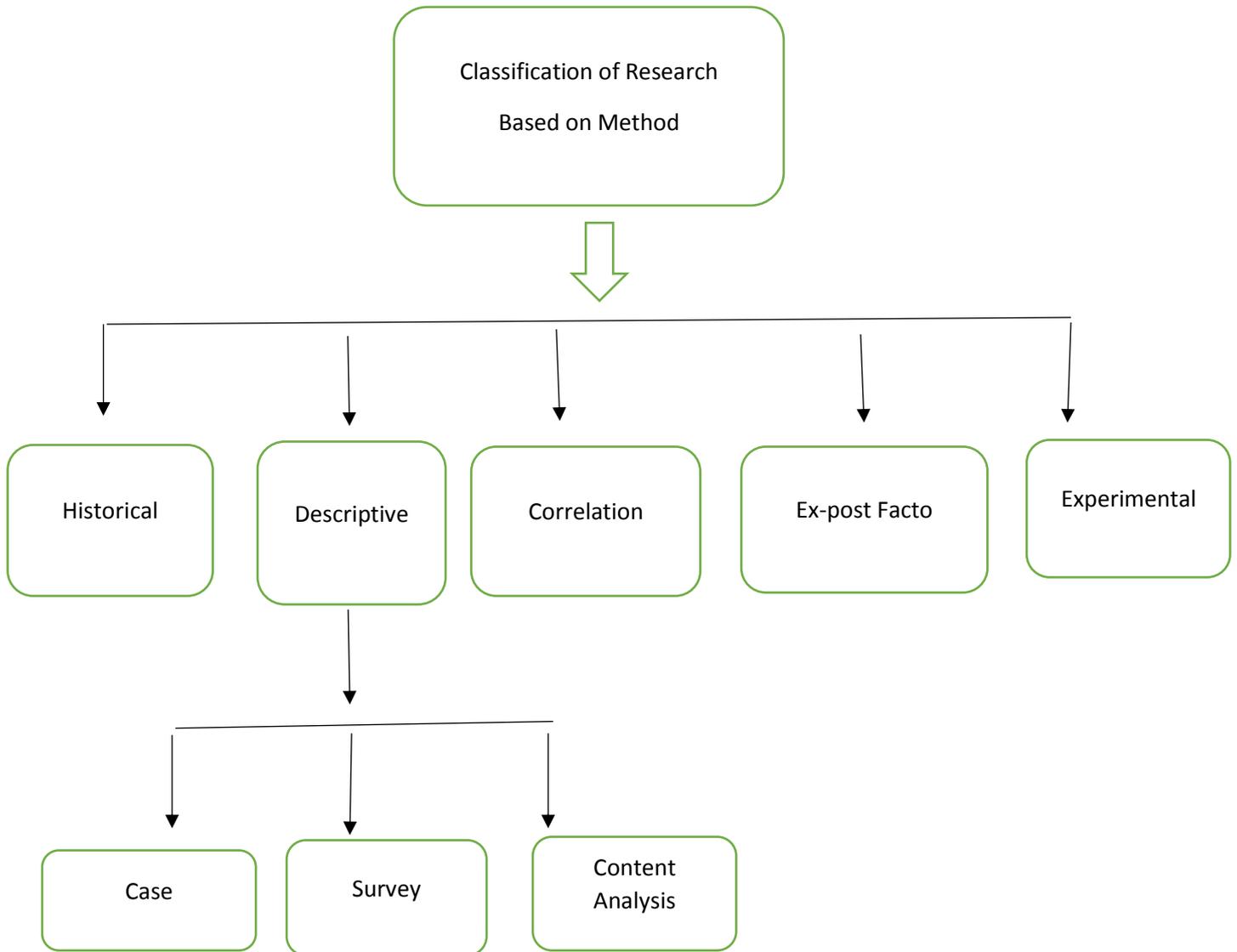


Figure - Classification of Research by Purpose

Historical Research: It is that which utilizes historical sources like documents, remains, etc. to study events or ideas of the past, including the philosophy of persons and groups at any remote point of time. The purpose of historical research is to arrive at conclusions concerning trends, causes or effects of past occurrences. This may help in explaining present events and anticipating future events.

Descriptive Research: It includes case studies, surveys and fact-findings enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs, as it exists at present. The main characteristic of this method is the researcher has no control over the variables; s/he can only report what has happened or what is happening.

Descriptive research studies deal with collecting data and testing hypotheses or answering questions concerning the current status of the subject of study. It deals with the question 'what is' of a situation. It concerns with determining the current practices, status or features of situations. Another aspect of descriptive research is that data collection is either done through asking questions from individuals in the situation (through questionnaires or interviews) or by observation. Market study on people's choice is mostly descriptive research.

Correlational Research: Descriptive and historical researches provide a picture of events that are currently happening or have occurred in the past. Researchers often want to go beyond mere description and begin discussing the relationship that certain events might have to one another. The most likely type of research to answer the relationship among variables or events is called correlational research. It aims at determining the degree of relationship between two or more quantifiable variables. Secondly, the relationship thus determined could be used for making predictions. A high value of relationship, however, does not signify a cause and effect relationship which must be verified through experimental study. This research is often conducted to test the reliability and predictive validity of instruments used for decision making concerning selection of individuals for the likely success in a course of study or a specific job. Some authors consider this research as a type of descriptive research, since it describes the current conditions in a situation. However, the difference lies in the nature of conditions studies. A correlational study describes in quantitative terms the degree to which the variables are related.

Ex-post Facto Research: There is some research where both the effect and the alleged cause have already occurred and are studied by the researcher in retrospect. Such research is referred to as Ex-post Facto (after the fact). Kerlinger (1973) defines Ex-post Facto research as: "Systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable". Thus, in ex-post facto research or causal-comparative research the researcher has no control on the variables or s/he cannot manipulate the variables (independent variables) which cause a certain effect (dependent variables) being measured. Since this type of study lacks manipulation of variables, the cause-effect relationship measured are only tentative. Some authors categorize Ex-post facto studies into the category of descriptive research. Though it too describes conditions that exist in a situation, it attempts to determine reasons or causes for the current status of the phenomena under study. The procedures involved in this study are quite different than those in descriptive research.

Experimental Research: We already know that correlational research can help establish the presence of a relationship among variables but not give us any reason to believe that variables are causally related to one another. How does one find out if the characteristics or behaviors or events are related in such a way that the relationship is a causal one? Two types of research can answer this:

(1) Quasi-experimental research and

(2) Experimental research. Experimental research is where participants are assigned to groups based on some selected criterion often called treatment variable.

(1) Quasi-experimental research is where participants are pre-assigned to groups based on some characteristic or quality such as differences in sex, race, age, neighbourhood, etc. These group assignments have already taken place before the experiment begins, and the researcher has no control as to what the people will belong to each group. The primary characteristic of experimental research is manipulation of at least one variables and control over the other relevant variables so as to measure its effect on one or more dependent variables. The variable (s) which is manipulated is also called an independent variable, a treatment, an experimental variables or the cause. Some of the examples of independent variables could be: temperature, pressure, chemical concentration, type of material and conductivity. Experimental research will always have two or more groups for comparison on the dependent variables. It is the only type of research which can establish truly the cause and effect relations.