

Acculturation -- refers to the process of adapting to another culture, particularly in reference to blending in with the majority population [e.g., an immigrant adopting American customs]. However, acculturation also implies that both cultures add something to one another, but still remain distinct groups unto themselves.

Accuracy -- a term used in survey research to refer to the match between the target population and the sample.

Affective Measures -- procedures or devices used to obtain quantified descriptions of an individual's feelings, emotional states, or dispositions.

Aggregate -- a total created from smaller units. For instance, the population of a county is an aggregate of the populations of the cities, rural areas, etc. that comprise the county. As a verb, it refers to total data from smaller units into a large unit.

Anonymity -- a research condition in which no one, including the researcher, knows the identities of research participants.

Baseline -- a control measurement carried out before an experimental treatment.

Behaviourism -- school of psychological thought concerned with the observable, tangible, objective facts of behaviour, rather than with subjective phenomena such as thoughts, emotions, or impulses. Contemporary behaviourism also emphasizes the study of mental states such as feelings and fantasies to the extent that they can be directly observed and measured.

Beliefs -- ideas, doctrines, tenets, etc. that are accepted as true on grounds which are not immediately susceptible to rigorous proof.

Benchmarking -- systematically measuring and comparing the operations and outcomes of organizations, systems, processes, etc., against agreed upon "best-in-class" frames of reference.

Bias -- a loss of balance and accuracy in the use of research methods. It can appear in research via the sampling frame, random sampling, or non-response. It can also occur at other stages in research, such as while interviewing, in the design of questions, or in the way data are analysed and presented. Bias means that the research findings will not be representative of, or generalizable to, a wider population.

Case Study -- the collection and presentation of detailed information about a particular participant or small group, frequently including data derived from the subjects themselves.

Causal Hypothesis -- a statement hypothesizing that the independent variable affects the dependent variable in some way.

Causal Relationship -- the relationship established that shows that an independent variable, and nothing else, causes a change in a dependent variable. It also establishes how much of a change is shown in the dependent variable.

Causality -- the relation between cause and effect.

Central Tendency -- any way of describing or characterizing typical, average, or common values in some distribution.

Chi-square Analysis -- a common non-parametric statistical test which compares an expected proportion or ratio to an actual proportion or ratio.

Claim -- a statement, similar to a hypothesis, which is made in response to the research question and that is affirmed with evidence based on research.

Classification -- ordering of related phenomena into categories, groups, or systems according to characteristics or attributes.

Cluster Analysis -- a method of statistical analysis where data that share a common trait are grouped together. The data is collected in a way that allows the data collector to group data according to certain characteristics.

Cohort Analysis -- group by group analytic treatment of individuals having a statistical factor in common to each group. Group members share a particular characteristic [e.g., born in a given year] or a common experience [e.g., entering a college at a given time].

Confidentiality -- a research condition in which no one except the researcher(s) knows the identities of the participants in a study. It refers to the treatment of information that a participant has disclosed to the researcher in a relationship of trust and with the expectation that it will not be revealed to others in ways that violate the original consent agreement, unless permission is granted by the participant.

Confirmability Objectivity -- the findings of the study could be confirmed by another person conducting the same study.

Construct -- refers to any of the following: something that exists theoretically but is not directly observable; a concept developed [constructed] for describing relations among phenomena or for other research purposes; or, a theoretical definition in which concepts are defined in terms of other concepts. For example, intelligence cannot be directly observed or measured; it is a construct.

Construct Validity -- seeks an agreement between a theoretical concept and a specific measuring device, such as observation.

Constructivism -- the idea that reality is socially constructed. It is the view that reality cannot be understood outside of the way humans interact and that the idea that knowledge is constructed, not discovered. Constructivists believe that learning is more active and self-directed than either behaviourism or cognitive theory would postulate.

Content Analysis -- the systematic, objective, and quantitative description of the manifest or latent content of print or nonprint communications.

Context Sensitivity -- awareness by a qualitative researcher of factors such as values and beliefs that influence cultural behaviours.

Control Group -- the group in an experimental design that receives either no treatment or a different treatment from the experimental group. This group can thus be compared to the experimental group.

Controlled Experiment -- an experimental design with two or more randomly selected groups [an experimental group and control group] in which the researcher controls or introduces the independent variable and measures the dependent variable at least two times [pre- and post-test measurements].

Correlation -- a common statistical analysis, usually abbreviated as r , that measures the degree of relationship between pairs of interval variables in a sample. The range of correlation is from -1.00 to zero to +1.00. Also, a non-cause and effect relationship between two variables.

Covariate -- a product of the correlation of two related variables times their standard deviations. Used in true experiments to measure the difference of treatment between them.

Credibility -- a researcher's ability to demonstrate that the object of a study is accurately identified and described based on the way in which the study was conducted.

Critical Theory -- an evaluative approach to social science research, associated with Germany's neo-Marxist "Frankfurt School," that aims to criticize as well as analyze society, opposing the political orthodoxy of modern communism. Its goal is to promote human emancipatory forces and to expose ideas and systems that impede them.

Data -- factual information [as measurements or statistics] used as a basis for reasoning, discussion, or calculation.

Data Mining -- the process of analyzing data from different perspectives and summarizing it into useful information, often to discover patterns and/or systematic relationships among variables.

Data Quality -- this is the degree to which the collected data [results of measurement or observation] meet the standards of quality to be considered valid [trustworthy] and reliable [dependable].

Deductive -- a form of reasoning in which conclusions are formulated about particulars from general or universal premises.

Dependability -- being able to account for changes in the design of the study and the changing conditions surrounding what was studied.

Dependent Variable -- a variable that varies due, at least in part, to the impact of the independent variable. In other words, its value "depends" on the value of the independent variable. For example, in the variables "gender" and "academic major," academic major is the dependent variable, meaning that your major cannot determine whether you are male or female, but your gender might indirectly lead you to favour one major over another.

Deviation -- the distance between the mean and a particular data point in a given distribution.

Discourse Community -- a community of scholars and researchers in a given field who respond to and communicate to each other through published articles in the community's journals and presentations at conventions. All members of the discourse community adhere to certain conventions for the presentation of their theories and research.

Discrete Variable -- a variable that is measured solely in whole units, such as, gender and number of siblings.

Distribution -- the range of values of a particular variable.

Effect Size -- the amount of change in a dependent variable that can be attributed to manipulations of the independent variable. A large effect size exists when the value of the dependent variable is strongly influenced by the independent variable. It is the mean difference on a variable between experimental and control groups divided by the standard deviation on that variable of the pooled groups or of the control group alone.

Emancipatory Research -- research is conducted on and with people from marginalized groups or communities. It is led by a researcher or research team who is either an indigenous or external insider; is interpreted within intellectual frameworks of that group; and, is conducted largely for the purpose of empowering members of that community and improving services for them. It also engages members of the community as co-constructors or validators of knowledge.

Empirical Research -- the process of developing systematized knowledge gained from observations that are formulated to support insights and generalizations about the phenomena being researched.

Epistemology -- concerns knowledge construction; asks what constitutes knowledge and how knowledge is validated.

Ethnography -- method to study groups and/or cultures over a period of time. The goal of this type of research is to comprehend the particular group/culture through immersion into the culture or group. Research is completed through various methods but, since the researcher is immersed within the group for an extended period of time, more detailed information is usually collected during the research.

Expectancy Effect -- any unconscious or conscious cues that convey to the participant in a study how the researcher wants them to respond. Expecting someone to behave in a particular way has been shown to promote the expected behaviour. Expectancy effects can be minimized by using standardized interactions with subjects, automated data-gathering methods, and double blind protocols.

External Validity -- the extent to which the results of a study are generalizable or transferable.

Factor Analysis -- a statistical test that explores relationships among data. The test explores which variables in a data set are most related to each other. In a carefully constructed survey, for example, factor analysis can yield information on patterns of responses, not simply data on a single response. Larger tendencies may then be interpreted, indicating behaviour trends rather than simply responses to specific questions.

Field Studies -- academic or other investigative studies undertaken in a natural setting, rather than in laboratories, classrooms, or other structured environments.

Focus Groups -- small, roundtable discussion groups charged with examining specific topics or problems, including possible options or solutions. Focus groups usually consist of 4-12 participants, guided by moderators to keep the discussion flowing and to collect and report the results.

Framework -- the structure and support that may be used as both the launching point and the on-going guidelines for investigating a research problem.

Generalizability -- the extent to which research findings and conclusions conducted on a specific study to groups or situations can be applied to the population at large.

Grounded Theory -- practice of developing other theories that emerge from observing a group. Theories are grounded in the group's observable experiences, but researchers add their own insight into why those experiences exist.

Group Behaviour -- behaviours of a group as a whole, as well as the behaviour of an individual as influenced by his or her membership in a group.

Hypothesis -- a tentative explanation based on theory to predict a causal relationship between variables.

Independent Variable -- the conditions of an experiment that are systematically manipulated by the researcher. A variable that is not impacted by the dependent variable, and that itself impacts the dependent variable. In the earlier example of "gender" and "academic major," (see Dependent Variable) gender is the independent variable.

Individualism -- a theory or policy having primary regard for the liberty, rights, or independent actions of individuals.

Inductive -- a form of reasoning in which a generalized conclusion is formulated from particular instances.

Inductive Analysis -- a form of analysis based on inductive reasoning; a researcher using inductive analysis starts with answers, but formulates questions throughout the research process.

Insiderness -- a concept in qualitative research that refers to the degree to which a researcher has access to and an understanding of persons, places, or things within a group or community based on being a member of that group or community.

Internal Consistency -- the extent to which all questions or items assess the same characteristic, skill, or quality.

Internal Validity -- the rigor with which the study was conducted [e.g., the study's design, the care taken to conduct measurements, and decisions concerning what was and was not measured]. It is also the extent to which the designers of a study have taken into account alternative explanations for any causal relationships they explore. In studies that do not explore causal relationships, only the first of these definitions should be considered when assessing internal validity.

Life History -- a record of an event/events in a respondent's life told [written down, but increasingly audio or video recorded] by the respondent from his/her own perspective in his/her own words. A life history is different from a "research story" in that it covers a longer time span, perhaps a complete life, or a significant period in a life.

Margin of Error -- the permissible or acceptable deviation from the target or a specific value. The allowance for slight error or miscalculation or changing circumstances in a study.

Measurement -- process of obtaining a numerical description of the extent to which persons, organizations, or things possess specified characteristics.

Meta-Analysis -- an analysis combining the results of several studies that address a set of related hypotheses.

Methodology -- a theory or analysis of how research does and should proceed.

Methods -- systematic approaches to the conduct of an operation or process. It includes steps of procedure, application of techniques, systems of reasoning or analysis, and the modes of inquiry employed by a discipline.

Mixed-Methods -- a research approach that uses two or more methods from both the quantitative and qualitative research categories. It is also referred to as blended methods, combined methods, or methodological triangulation.

Modelling -- the creation of a physical or computer analogy to understand a particular phenomenon. Modelling helps in estimating the relative magnitude of various factors involved in a phenomenon. A successful model can be shown to account for unexpected behaviour that has been observed, to predict certain behaviours, which can then be tested

experimentally, and to demonstrate that a given theory cannot account for certain phenomenon.

Models -- representations of objects, principles, processes, or ideas often used for imitation or emulation.

Naturalistic Observation -- observation of behaviours and events in natural settings without experimental manipulation or other forms of interference.

Norm -- the norm in statistics is the average or usual performance. For example, students usually complete their high school graduation requirements when they are 18 years old. Even though some students graduate when they are younger or older, the norm is that any given student will graduate when he or she is 18 years old.

Null Hypothesis -- the proposition, to be tested statistically, that the experimental intervention has "no effect," meaning that the treatment and control groups will not differ as a result of the intervention. Investigators usually hope that the data will demonstrate some effect from the intervention, thus allowing the investigator to reject the null hypothesis.

Ontology -- a discipline of philosophy that explores the science of what is, the kinds and structures of objects, properties, events, processes, and relations in every area of reality.

Panel Study -- a longitudinal study in which a group of individuals is interviewed at intervals over a period of time.

Participant -- individuals whose physiological and/or behavioural characteristics and responses are the object of study in a research project.

Peer-Review -- the process in which the author of a book, article, or other type of publication submits his or her work to experts in the field for critical evaluation, usually prior to publication. This is standard procedure in publishing scholarly research.

Phenomenology -- a qualitative research approach concerned with understanding certain group behaviours from that group's point of view.

Philosophy -- critical examination of the grounds for fundamental beliefs and analysis of the basic concepts, doctrines, or practices that express such beliefs.

Phonology -- the study of the ways in which speech sounds form systems and patterns in language.

Policy -- governing principles that serve as guidelines or rules for decision making and action in a given area.

Policy Analysis -- systematic study of the nature, rationale, cost, impact, effectiveness, implications, etc., of existing or alternative policies, using the theories and methodologies of relevant social science disciplines.

Population -- the target group under investigation. The population is the entire set under consideration. Samples are drawn from populations.

Position Papers -- statements of official or organizational viewpoints, often recommending a particular course of action or response to a situation.

Positivism -- a doctrine in the philosophy of science, positivism argues that science can only deal with observable entities known directly to experience. The positivist aims to construct general laws, or theories, which express relationships between phenomena. Observation and experiment is used to show whether the phenomena fit the theory.

Predictive Measurement -- use of tests, inventories, or other measures to determine or estimate future events, conditions, outcomes, or trends.

Principal Investigator -- the scientist or scholar with primary responsibility for the design and conduct of a research project.

Probability -- the chance that a phenomenon will occur randomly. As a statistical measure, it is shown as p [the "p" factor].

Questionnaire -- structured sets of questions on specified subjects that are used to gather information, attitudes, or opinions.

Random Sampling -- a process used in research to draw a sample of a population strictly by chance, yielding no discernible pattern beyond chance. Random sampling can be

accomplished by first numbering the population, then selecting the sample according to a table of random numbers or using a random-number computer generator. The sample is said to be random because there is no regular or discernible pattern or order. Random sample selection is used under the assumption that sufficiently large samples assigned randomly will exhibit a distribution comparable to that of the population from which the sample is drawn. The random assignment of participants increases the probability that differences observed between participant groups are the result of the experimental intervention.

Reliability -- the degree to which a measure yields consistent results. If the measuring instrument [e.g., survey] is reliable, then administering it to similar groups would yield similar results. Reliability is a prerequisite for validity. An unreliable indicator cannot produce trustworthy results.

Representative Sample -- sample in which the participants closely match the characteristics of the population, and thus, all segments of the population are represented in the sample. A representative sample allows results to be generalized from the sample to the population.

Rigor -- degree to which research methods are scrupulously and meticulously carried out in order to recognize important influences occurring in an experimental study.

Sample -- the population researched in a particular study. Usually, attempts are made to select a "sample population" that is considered representative of groups of people to whom results will be generalized or transferred. In studies that use inferential statistics to analyze results or which are designed to be generalizable, sample size is critical, generally the larger the number in the sample, the higher the likelihood of a representative distribution of the population.

Sampling Error -- the degree to which the results from the sample deviate from those that would be obtained from the entire population, because of random error in the selection of respondent and the corresponding reduction in reliability.

Saturation -- a situation in which data analysis begins to reveal repetition and redundancy and when new data tend to confirm existing findings rather than expand upon them.

Semantics -- the relationship between symbols and meaning in a linguistic system. Also, the cuing system that connects what is written in the text to what is stored in the reader's prior knowledge.

Social Theories -- theories about the structure, organization, and functioning of human societies.

Sociolinguistics -- the study of language in society and, more specifically, the study of language varieties, their functions, and their speakers.

Standard Deviation -- a measure of variation that indicates the typical distance between the scores of a distribution and the mean; it is determined by taking the square root of the average of the squared deviations in a given distribution. It can be used to indicate the proportion of data within certain ranges of scale values when the distribution conforms closely to the normal curve.

Statistical Analysis -- application of statistical processes and theory to the compilation, presentation, discussion, and interpretation of numerical data.

Statistical Bias -- characteristics of an experimental or sampling design, or the mathematical treatment of data, that systematically affects the results of a study so as to produce incorrect, unjustified, or inappropriate inferences or conclusions.

Statistical Significance -- the probability that the difference between the outcomes of the control and experimental group are great enough that it is unlikely due solely to chance. The probability that the null hypothesis can be rejected at a predetermined significance level [0.05 or 0.01].

Statistical Tests -- researchers use statistical tests to make quantitative decisions about whether a study's data indicate a significant effect from the intervention and allow the researcher to reject the null hypothesis. That is, statistical tests show whether the differences between the outcomes of the control and experimental groups are great enough to be statistically significant. If differences are found to be statistically significant, it means that the probability [likelihood] that these differences occurred solely due to chance is relatively low. Most researchers agree that a significance value of .05 or less [i.e., there is a 95% probability that the differences are real] sufficiently determines significance.

Subcultures -- ethnic, regional, economic, or social groups exhibiting characteristic patterns of behaviour sufficient to distinguish them from the larger society to which they belong.

Testing -- the act of gathering and processing information about individuals' ability, skill, understanding, or knowledge under controlled conditions.

Theory -- a general explanation about a specific behaviour or set of events that is based on known principles and serves to organize related events in a meaningful way. A theory is not as specific as a hypothesis.

Treatment -- the stimulus given to a dependent variable.

Trend Samples -- method of sampling different groups of people at different points in time from the same population.

Triangulation -- a multi-method or pluralistic approach, using different methods in order to focus on the research topic from different viewpoints and to produce a multi-faceted set of data. Also used to check the validity of findings from any one method.

Unit of Analysis -- the basic observable entity or phenomenon being analysed by a study and for which data are collected in the form of variables.

Validity -- the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. A method can be reliable, consistently measuring the same thing, but not valid.

Variable -- any characteristic or trait that can vary from one person to another [race, gender, academic major] or for one person over time [age, political beliefs].

Weighted Scores -- scores in which the components are modified by different multipliers to reflect their relative importance.

White Paper -- an authoritative report that often states the position or philosophy about a social, political, or other subject, or a general explanation of an architecture, framework, or product technology written by a group of researchers. A white paper seeks to contain unbiased information and analysis regarding a business or policy problem that the researchers may be facing.

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