

Glossary

Q Find something...

Abduction

A logical inference of a conclusion (or special case of inductive reasoning) that likely follows (but doesn't necessarily follow) from the provided premises and provides a reasonable explanation of the mechanism by which the conclusion follows.

Action Research

A research methodology that seeks transformative change by iteratively acting toward change and doing research on the effectiveness of methods within authentic, situated contexts.

Advocacy

Adopting or encouraging a particular stance, solution, or policy.

Alternative Hypothesis

A proposed explanation of phenomena that deviates from received wisdom or current belief.

Appropriateness

An expectation that research methods should align with the problems being solved or the questions being asked.

Audit Trail

A technique for ensuring rigor in which the researcher collects field notes or records of what is done, seen, heard, thought, etc. throughout the course of a study.

Axiology

The branch of knowledge that deals with value, mattering, and importance.

Barnum Effect

A psychological phenomenon wherein a person may believe that generic statements that are universally accurate are true of them in a personal manner, often used by charlatans to convince victims that they have supernatural powers.

Care-Based Ethics

An approach to ethics wherein the development of loving and caring relationships is seen to be the fundamental virtue.

Causation

A relationship between two variables that implies directional influence (e.g., reading the textbook leads to higher achievement on the test).

Census

A study that includes every member of the population, removing the need for sampling, generalizability, etc.

Color Blindness

An approach to social situations that purports to be blind to (or to ignore) matters of color and race.

Confirmability

An expectation that results should be supported by participants, other researchers, and existing literature.

Confirmation Bias

A tendency to interpret new evidences as supporting or confirming existing theories and paradigms (often ignoring contradictory evidence or negative cases).

Conflict of Interest

A threat to validity in which the biases or goals of a researcher, or potential benefits to them personally (especially in the case of monetary gain), may jeopardize the legitimacy or perceived legitimacy of their work.

Consensus Fallacy

A logical fallacy in which it is assumed that something is true because a majority of people believe it.

Consequentialism

An approach to ethics that holds that the morality of an action should be determined by its effects.

Contractarianism

A non-normative approach to ethics that holds that what is held to be right and good is merely determined by social contracts that are shared between people.

Convenience Sampling

An approach to sampling, common in design and professional practices, that chooses subjects that are accessible to the researcher, such as testing with a colleague, interviewing a spouse, etc.

Correlation

A relationship between two variables that does not imply directional influence (e.g., life satisfaction is correlated to educational attainment, but it is not clear if one causes the other).

Credibility

An expectation that study results should be believable to critical readers, approved by participants, and otherwise true or accurate.

Critical Consciousness

A developed awareness of one's own relationship to oppressive social structures that is necessary for liberation.

Critical Pedagogy

An approach to pedagogy that seeks to help oppressed learners develop critical consciousness necessary for liberation.

Critical Theory

A research paradigm that deconstructs power structures that have historically been used to oppress, marginalize, or disenfranchise people according to various factors (e.g., race, ethnicity, socioeconomic class, gender).

Critical Thinking

Thoughtful analysis that emphasizes dispassionate, unbiased objectivity.

Deduction

A logical inference of a conclusion that necessarily follows from the provided premises.

Degenerative Science

A research programme which either does not make novel predictions or which makes novel predictions that are systematically proven wrong (cf., Lakatos).

Deontology

An approach to ethics that holds that the morality of an action should be determined by its duty-bound adherence to particular laws or norms of behavior.

Dependability

An expectation that methods, logic, and reasoning guiding a study should be clear, stable, and consistent.

Dependent Variable

The output variable or the variable being measured or that is being affected (e.g., student test scores, satisfaction ratings).

Design Research

A research methodology that iteratively develops, tests, and redevelops education interventions in authentic learning settings.

Discipline

An expectation that the researcher is thoughtful and methodical, following key standards and norms that are generally accepted by other researchers who use similar methodologies.

Either/Or Fallacy

Also known as a false dichotomy, a logical fallacy in which only two possible solutions are provided (when there might actually be many more possibilities), intending to lead the audience to choose the more reasonable of the two.

Emic Perspective

An insider approach to research, or research from a native point of view.

Epistemology

The branch of knowledge that deals with knowing, such as what is known, how it is known, and how it is proven.

Ethics

The branch of knowledge that deals with rightness, goodness, and morality.

Etic Perspective

An outsider approach to research, or research from an observer point of view.

Eudaimonism

The stance that moral behavior consists of doing that which will lead to the happiness or well-being of the individual.

Fact

A true statement about a finite, specific, and observable thing.

Generalizability

The ability to take the results of a study focusing on a sample of a population and to apply them to the overall population.

Halo Effect

Typically treated as a threat to validity, a situation arising in which a researcher might allow their findings or attitudes in one area (e.g., "Julie is good at math") to influence their findings in another area (e.g., "Julie is probably good at science").

Hawthorne Effect

Typically treated as a threat to validity, a situation arising in observational research in which the subject being observed changes their behavior because they know they are being observed.

Hypothesis

A proposed statement that is not known to be true or false but that can be tested for falsity.

Incommensurability

The assumption that differing paradigms or worldviews are not readily compatible with or reducible to one another.

Independent Variable

The input variable or the variable being manipulated or tried (e.g., an intervention) or that is a static characteristic of the population (e.g., a demographic factor).

Induction

A logical inference of a conclusion that likely follows (but doesn't necessarily follow) from the provided premises, generally from evidence of experience, frequency, or statistics.

Interpretivism

A research paradigm that values and seeks to subjectively understand the lives, experiences, values, and beliefs of people.

Intersectionality

The complex interrelationship of factors or categorizations (e.g., race, ethnicity, gender, socioeconomic class) that comprise a person's experiences of privilege, oppression, discrimination, etc.

Intersubjectivity

An assumption that knowing is a subjectively mediated process both between the subject (observer) and the world and also between different subjects (observers).

Law

A relational (often mathematical) predictive statement of relationship between phenomena that is finite, specific, and observable.

Marginalization

Processes by which people are pushed to the margins of society, thereby preventing them from fully participating in and benefiting from it.

Meaningfulness

An expectation that a study will address a problem or issue that actually matters.

Member Checking

A technique for ensuring credibility wherein the researcher provides data records, interpretations, and results to the participants being studied to allow for alignment between the researcher's and the participant's understandings.

Meritocracy

A belief that society enables people to achieve in life according to their merit (e.g., hard work, grit, determination), often formulated to suggest that success is due to merit and that lack of success is due to lack of merit.

Method

The specific procedure, action, or steps taken when doing research, such as distributing a survey, conducting an interview, or statistically analyzing numeric data.

Methodology

The technical guidelines followed when performing methods, such as how a survey instrument should be constructed, how an interview should be conducted, or how data should be validly analyzed.

Minoritization

A process by which the experiences and lives of people are relegated to less-privileged positions in society (even if those people make up a numeric majority).

Mixed Methods

A research approach that uses both qualitative and quantitative methods.

Moral Relativism

A non-normative approach to ethics that holds that what is right and good is only ever determined by references to individual or cultural norms or contexts.

Natural Conditions

An expectation that qualitative studies will be conducted under authentic, real-world (rather than sterile, laboratory, or inappropriate) conditions.

Negative Case Analysis

A technique for ensuring credibility wherein the researcher intentionally seeks for cases that contradict their hypotheses and initial conclusions, thereby ensuring that exceptions are accounted for in final conclusions.

Normative Ethics

Approaches to ethics that assume some level of universalizability of moral action (across cultures or contexts).

Null Hypothesis

A proposed explanation of phenomena that conforms to received wisdom or current belief.

Objectivity

An assumption that people can directly observe the world, or facts or truths in it, in an unbiased fashion and have an accurate knowledge of what they are observing.

Ontology

The branch of knowledge that deals with being and reality.

Paradigm

A model or pattern we follow when conducting research, including both our surface-level methods as well as our deeper, often hidden, beliefs, attitudes, expectations, and values.

Peer Debriefing

A technique for ensuring credibility wherein the researcher discusses bias, methods, and conclusions with one or more disinterested peers.

Persistent Observation

A technique for ensuring credibility wherein the researcher experiences phenomena consistently and deeply, allowing them to recognize importance and irrelevance.

Pluralism

The assumption that multiple views, approaches, or stances can be contextually legitimate.

Population

The group facing the problem researchers are trying to solve or to whom researchers will generalize their results (e.g., K-12 students), represented by the uppercase "N" variable.

Praxis

The application of research findings and theory into practice.

Progressive Subjectivity Checking

A technique for ensuring credibility wherein the researcher archives their ongoing, evolving biases and expectations of a research project.

Prolonged Engagement

A technique for ensuring credibility wherein the researcher experiences phenomena long enough to minimize distortions and ensure proper breadth of understanding.

Purposeful Sampling

An approach to sampling, common in qualitative research, that chooses subjects that will provide insight for answering the study questions.

Random Sampling

An approach to sampling, common in quantitative research, that chooses subjects randomly from a target group or population.

Randomization

Relying on chance for achieving a goal in an attempt to decrease biases and errors, as in selecting participants at random from a population.

Reduction Fallacy

A logical fallacy in which it is assumed that there is a single, simple cause for an outcome rather than complex, various, or random causes.

Research

Systematic, auditable, empirical inquiry. (This definition may be field-specific and only applies here to education research.)

Rigor

An expectation (common in all research methodologies) that the researcher is being thorough, responsible, reasonable, and accurate.

Sample

The actual group being studied, represented by the lowercase "n" variable.

Sampling Bias

A threat to validity in which the people or data actually being studied (i.e., the sample) do not accurately represent those to whom results are being applied (i.e., the population), such as if a study included only participants representing one socioeconomic, racial, ethnic, age, ability, or cultural group and applied results to others.

Saturation

The point in qualitative research wherein no additional categories are being developed or no novel findings are arising, suggesting that the researcher can reasonably stop sampling new participants.

Schema

A mental organizing structure that people use to construct meaning and to make sense of information.

Scientific Progressivism

The belief that applying the scientific method has historically yielded positive, fairly-consistent improvement in human understanding and knowledge.

Solidarity

Unity of feeling or attitude expressed by an outsider toward members of an oppressed group intended to support their self-liberation.

Subjectivity

An assumption that people can only understand the world as a mediated process of knowing that is directed by the biases, attitudes, expectations, and experiences of the subject or observer.

Subtractive Schooling

An approach to education that strips away aspects of minoritized students' cultures and identities rather than building upon them (such as the devaluing of indigenous perspectives or the unlearning of home languages).

Theory

An explanation of the 'how' or 'why' of particular phenomena, typically referencing existing facts and laws.

Tokenization (Data)

A process by which sensitive, private, or complex information is made nonsensitive, de-identified, or manageable through the use of tokens as identifiers (e.g., pseudonyms, numbers).

Tokenization (Social)

An unsuccessful approach to diversity and inclusivity that essentializes a person's identity and expects them to serve as a spokesperson for a larger group (e.g., asking a woman to serve on a board of directors only because she is a woman and expecting her to represent all women).

Transferability

The ability of a reader to apply or transfer the results of a study to their own situation or context.

Triangulation

A technique for ensuring credibility wherein the researcher verifies results across multiple data sources, multiple methods, and/or multiple co-researchers.

Trustworthiness

An expectation in qualitative methodologies that the researcher should provide enough explanation, transparency, and evidence that their results can be confidently believed.

Type I Error

A false positive error in which the null hypothesis is erroneously rejected.

Type II Error

A false negative error in which the null hypothesis is failed to be rejected even though it should have been.

Utilitarianism

The consequentialist stance that moral behavior consists of doing what will have the greatest effect, typically in terms of doing the greatest good for the greatest number of people.

Virtue Ethics

An approach to ethics that holds that the morality of an action should be determined by its relationship to the moral agent's development or expression of fundamental virtues.



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