



Center of Innovation on Disability and Rehabilitation Research (CINDRR) Research Notes and Glossary

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6 April 2017

Research Term Glossary

Abstract - A brief summary of a research project and its findings.

Aggregate - A total created from smaller units. For example, a county is an aggregate of the cities, rural areas, and communities.

Anonymity - No one, including the researcher, knows the identities of research participants.

Baseline - A measurement of data taken at the beginning of a study for comparison.

Bibliography - A list of the books referred to in a research project. It usually appears at the end, or as a separate section, known as an appendix.

Blinded Study - A study design in which the participants (single-blinded) or participants *and* investigators (double-blinded) do not know which participants have been assigned to which treatment or intervention.

Case Study - The collection and presentation of detailed information about a particular participant or small group.

Causality - The relation between cause and effect.

Clinical Trial - A research study designed to determine the safety and effectiveness of a new medical (drug, medical device or procedure) or behavioral (diet, physical activity, therapy) intervention.

Conclusion - A brief summary of how the results of an experiment support or do not support a hypothesis.

Confidentiality - The assurance that the information provided by a participant in a study will be protected and will not be shared with others except as stated during the original consent process or with participant permission.

Consistency (aka Internal Consistency Reliability) - A measure of reliability used to evaluate the degree to which different test items investigate the same construct and produce similar results.

Construct - The identifying factor of a person or circumstance that often cannot be measured directly, but can be evaluated using a number of indicators or obvious variables.

- Direct Construct Examples:
 1. Height (in inches or cm)
 2. Weight (in lbs. or kg)
- Indirect Construct Examples

1. Depression - Measured on scale by number and severity of symptoms.
2. Mood during Tobacco Program - Measured by behavior patterns during different stages of quitting.

Control - A duplicate setup, sample or observation treated identically to the rest of an experiment except for the variable being tested. The control variable is meant to represent what's normal or unchanged. For example, if one wanted to test the effect of adding fertilizer to a plant's soil, the control would be the growth of a plant with no fertilizer.

Control Group - The group that does not receive any treatment in order to compare to the group who does receive treatment.

Data - Factual information used as a basis for reasoning, discussion, or calculation.

Data Book (aka Logbook) - A documentation of the work done during an experiment. It includes the findings, data collected during an experiment, observed responses, reactions and results.

Data Mining - The process of analyzing data from different perspectives and summarizing it into useful information.

Data Quality - 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).

Demonstration Project - A project that retests an experiment already conducted by someone else.

Empirical Research - The process of developing organized knowledge gained from observations that are formulated to support insights and details to the research.

Epidemiology - The study of health and disease in defined populations.

Exclusion Criteria - A list of conditions that make an individual unable to participate in a research study.

Falsification - To change information or evidence to mislead.

Focus Group - A small group of people who are asked to share, usually through answering questions and open discussion, their opinions, attitudes, beliefs, and perceptions on a specific topic.

Framework - Theories that are formulated to explain, predict, and understand research problems and questions. It is the structure and support for research studies.

Generalizability - The extent, to which research findings and conclusions conducted on a specific study, group, or situation, can be applied to the entire population.

Health Disparity - A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage.

Health Research (aka Clinical Research or Medical Research) - An investigation done to learn more about human health and to find ways to improve health and prevent and treat human illness and disease.

HIPAA Privacy Rule - The Health Insurance Portability and Accountability Act: A Federal protection that regulates how health care providers, groups, and organizations handle individually identifiable protected health information.

Human Subject (aka Human Participant) - A living person who becomes a participant in a research study. This individual is the object of study in the research project.

Hypothesis - A proposed explanation, based on factual evidence to predict a connecting relationship between variables.

Incentive - A payment or reward given to individuals who join or remain in a research study.

Inclusion Criteria - A list of requirements that must be met by all study participants. Inclusion criteria determine whether or not an individual is eligible to participate. Examples are age or a specific health condition such as diabetes or asthma.

Informed Consent - The process in which researchers communicate information about a study to potential participants. Information delivered during this process includes, but is not limited to, the purpose of the study, the risks and benefits, and that participation is voluntary and can be discontinued at any time.

Institutional Review Board (IRB) - An independent group of researchers, non-researchers, and community members that reviews, approves, and monitors each research study that is conducted at an institution to ensure that the rights and safety of participants are protected. The IRB has the right to reject or discontinue any study that does not comply with federal, state, and institutional regulations.

Intervention - A procedure, action, drug, device, or other behavioral or medical process that is being tested in a research trial.

Literature Search - An organized review of books, articles and published research on a specific topic.

Mentor - An experienced and trusted adviser who provides advice and counseling.

Methodology (aka Research Methods) - A particular procedure or set of procedures. These may include the methods, techniques and instruments used in a research experiment.

Mixed Methods (aka blended methods, combined methods, or methodological methods) - A research approach that uses two or more methods from both the quantitative and qualitative research categories.

Non-therapeutic - Relating to something that does not treat, cure, or heal.

Participant - Individuals whose physical and/or behavioral characteristics and responses are observed and recorded 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.

Placebo - A pill, liquid, powder, or other intervention that does not contain any active ingredients.

Population - The group of people being observed or studied in research. Samples are drawn from populations.

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

Probability - The chance of random occurrence. In statistics, it is shown as “p” or the "p" factor.

Qualitative Data – Data that is not in numerical form. It is descriptive data such as data from questionnaires, observations, and interviews.

Quantitative Data – Data that is in numerical form. It can be used to create graphs and tables.

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

Randomization - The process by which participants in a research study are assigned to a treatment or intervention by chance.

Random Sampling - A process used in research to draw a sample of a population strictly by 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.

Reliability - The degree to which an assessment tool produces stable and consistent results.

Results - This explains or interprets the data produced in an experiment.

Rigor - Degree to which research methods are thoroughly and accurately carried out in order to recognize important influences occurring in an experimental study.

Sample - The population researched in a particular study.

Scientific Method – An organized sequence of steps followed by researchers and scientists to answer a question (hypothesis) or solve a problem.

Scientific Research - The organized investigation of questions raised by scientific theories and hypotheses.

Scientific Theory - In science, a theory is a well-supported model or explanation of a natural phenomenon. A scientific theory is based on observations, experiments and reason. Repeated experiments can confirm the validity of a scientific theory.

Side Effect – The unwanted effects of a drug or treatment that occur with desired effects. Side effects are usually negative or bad.

Social Determinants of Health - Circumstances or situations in which people live that impact their health. These circumstances include, but are not limited to, where people live, work, their educational system, and access to health care.

Social Justice - The idea that all people within a society should equally share in the benefits of that society, and that all people should be able to participate fully in the economic, social, and cultural life of the society.

Social Science - The study of society and human behaviors. Major areas of social science study include: anthropology, archaeology, sociology, economics, history, linguistics, and geography, among others.

Stakeholder - Any person, group, or organization that has an interest in, or may be affected by, a project.

Survey Research (aka Survey) - A type of research used to assess thoughts, attitudes, opinions, and beliefs and involves a set of questions given to a sample of a population.

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 behavior or how or why something occurs. A theory is not as specific as a hypothesis.

Trial - One of a number of series or phases of an experiment.

Triangulation – A mixed approach, using different methods in order to focus on the research topic from different viewpoints and to produce a diverse set of data.

Unit of Analysis - The basic observable object or occurrence being investigated by a study and for which data are collected in the form of variables.

Validity - Refers to how well a test measures what it is supposed to measure. A method can be reliable, consistently measuring the same thing, but not valid.

Variable - In research, the person, place, thing, or phenomenon that you are trying to measure during an experiment. Each variable that is to be tested would represent a different test condition.

- Independent Variable – The variable that is stable and unaffected by the other variables being measured. Independent variables cause change to dependent variables.
- Dependent Variable – The variable that depends on the other factors being measured.
- Example: A researcher wants to give a group of participants a medication (independent variable) and record each person's response (dependent variable).

References

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