## Introduction to communications research assignment



Simple: contain one independent and one dependent variable. . Testable: the ability to test the relationship among variables must be clear. 4. Useful: should provide new 3 criteria for monotheistic causal relationships 1 . Variables are correlated I. E. Describes statistical relationship between 2 variables 2. The cause takes place before the effect (post hoc ergo proper hoc) 3. The relationship between variables is non-spurious Monotheistic explanation is probabilistic in nature and is usually incomplete. Exceptions do not disprove a demonstrated monotheistic causal relationships. Causal relationships can exist even if they do not apply to the majority of cases.

Longitudinal Studies Cross-sectional Studies Observations taken at single point in time. Explanation occurs by examining differences across the units of analysis (hopefully representative of population). Less expensive, but harder to establish cause and effect. Observations are taken more than once. Explanation occurs by examining differences across time. More expensive, but easier to provide sense of cause and effect. Trend Studies Examines changes in a population across time. Investigator samples randomly from a population over time, with different individuals constituting each sample. Hard to understand WHY change occurred as participants differ.

Cohort Studies A type of longitudinal research where an investigator randomly samples from a but cause and effect still hard to show as surveys change. Cohort Analysis: Any study in which some characteristic of one or more cohorts is measured at two or more times. Cohort: a group of people who are linked by some common characteristic of life event. Panel Studies A longitudinal study that examines changes in individuals across time. Panel https://assignbuster.com/introduction-to-communications-researchassignment/

Page 3

studies provide the opportunity for more in-depth analysis. Each study collects data from he same individuals. Longitudinal panel studies are expensive but informative forms of research. One must account for attrition as each " wave" of data is collected from the panel. Reduce attrition by preparation and persistence.

Disadvantages of Longitudinal Studies 1. By the time the study is complete, the original measures will have become outmoded, and the overall social context will have changed. Critics will question if the findings are relevant. 2. Longitudinal researchers have to accept postponed gratification. 3. Difficult to secure funding for longitudinal studies because funding iodides often press for measures relevant for cross-sectional questions, rather than longitudinal analysis. 4. Because of their expense, it will always be necessary to plan for multiple uses, and this carries the danger of not addressing any question thoroughly. 5. Attrition over time is an ever-present hazard.

Advantages of Longitudinal Studies 1 . They allow an accurate time ordering of events to better address monotheistic causation. 2. They allow the study of within-individual change ? a more powerful causal analyses than crosssectional surveys. 3. Because these are multiple data mints, they provide a better leverage on the handling of missing data Week 5: Experimental Design 1 19th and 20th century classical experimentation 0 Practice of holding everything constant except the one variable under consideration. 0 Not controlling all potential variables, but rather manipulating levels of selected independent variables in order to examine their influence on dependent variables. Control: experimental design controls background variability so that systematic effects of treatments can be observed. 1. Control by matching Some sources of variation may be eliminated by matching, which limits inerrability However matching is only possible on known and observable characteristics and perfect matching is never possible 2. Control by randomization Converts of all irrelevant sources of possible systematic variability into unsystematic variability (random error) Like life insurance, a precaution against disturbances that may or may not occur and that may or may not be serious if they do occur 3. Control by statistical adjustment Uses statistical relations to simulate matching and increase precision.

Week 6: Experimental Design 2 Design: Total experimental plan or structure of experimental research. Pre-test: The initial observation of DVD among subjects (prior to ' V). Post-test: The measurement of DVD among subjects (after introduction of ' V). Laboratory Experiments vs. Field Experiments Ecological validity Hawthorne Effect: where subjects alter their behavior because they know they are being studied. As such, field experiments are often non-reactive. But often results in lack of control, as intervening variables might affect the precision of the experiment. Pre-experiments: designs follow basic experimental steps but fail to include a control group or random assignment. One-Shot Case Study One-Group Pre-Test-Post-Test Design